

# RANO WASH

## RURAL ACCESS TO NEW OPPORTUNITIES IN WATER, SANITATION, AND HYGIENE



**FY2022 Quarterly & Annual Report  
I July to 30 September 2022**

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## Rural Access to New Opportunities in Water, Sanitation, And Hygiene

### FY2022 Quarterly & Annual Report

1 July to 30 September 2022

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**FRONT PICTURE:** RANO WASH Capitalization Seminar organized on 21-22 September 2022 in Antananarivo (Photo credit: RANO WASH)

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## ACRONYMS AND ABBREVIATIONS

<b>AMIC.</b>	Association Malagasy des Investisseurs en Capital (Malagasy Association of Capital Investors)
<b>APS</b>	Avant-Projet Sommaire (Technical Scoping Study)
<b>APD</b>	Avant-Projet Détaillé (Detailed Project Design)
<b>AO</b>	Agreement Officer
<b>AOPDEM</b>	Association des Opérateurs Producteurs et Distributeurs d'Eau à Madagascar (Association of Water Producers and Distributors in Madagascar)
<b>AOR</b>	Agreement Officer Representative
<b>ASUREP</b>	Association des Usagers des Réseaux d'adduction en Eau Potable (Water Users Association)
<b>ATEAH</b>	Agent Technique de l'Eau, Assainissement et l'Hygiène (Water, Sanitation and Hygiene Technical Officer)
<b>BC</b>	Behavior Change
<b>BCD</b>	Behavior-centered Design
<b>BNGRC</b>	Bureau National de Gestion des Risques et Catastrophes (National Bureau of Disaster Risk Management)
<b>BPOC</b>	Budget Programme par Objectif Communal (Communal Program Budget per Objective)
<b>BPON</b>	Budget Programme par Objectif National (National Program Budget per Objective)
<b>BPOR</b>	Budget Programme par Objectif et Région (Regional Program Budget per Objective)
<b>CARE</b>	Cooperative for Assistance and Relief Everywhere Inc.
<b>CHV</b>	Community Health Volunteers
<b>CLTS</b>	Community-Led Total Sanitation
<b>COVID-19</b>	Coronavirus disease 2019
<b>COP</b>	Chief of Party
<b>CRM</b>	Climate Risk Management
<b>CRS</b>	Catholic Relief Service
<b>CSO</b>	Civil Society Organization
<b>CTTP</b>	Center for the Triage and the Treatment of the Plague
<b>DAF</b>	Director of Administration and Finance
<b>DCOP</b>	Deputy Chief of Party
<b>DGRE</b>	Direction de la Gestion des Ressources en Eau (Direction of Water Resource Management)
<b>DiMat</b>	District Monitoring Assessment Tool
<b>DIP</b>	Detailed Implementation Plan
<b>DMEAL</b>	Director of Monitoring, Evaluation, Accountability, and Learning
<b>DREAH</b>	Direction Régionale de l'Eau, de l'Assainissement et de l'Hygiène

<b>DREN</b>	Direction Régionale de l'Education Nationale
<b>DRSP</b>	Direction Régionale de la Santé Publique
<b>DSI</b>	Direction of the Information System
<b>DQA</b>	Data Quality Assessment
<b>EDBM</b>	Economic Development Board of Madagascar
<b>EMMP</b>	Environmental Mitigation & Monitoring Plan
<b>ERF</b>	Environmental Review Form
<b>ERR</b>	Environmental Review Report
<b>ESF</b>	Environmental Screening Form
<b>FAA</b>	Fonds d'Appui pour l'Assainissement (Global Sanitation Fund)
<b>FUM</b>	Follow-up Mandona
<b>FY</b>	Fiscal Year
<b>GEM</b>	Groupement des Entreprises de Madagascar
<b>GoM</b>	Government of Madagascar
<b>GSF</b>	Global Sanitation Fund
<b>IBM</b>	Integrated Behavioral Model
<b>ICT4D</b>	Information and Communication Technology for Development
<b>IP</b>	Implementing Partner
<b>IPTT</b>	Indicator Performance Tracking Table
<b>IWRM</b>	Integrated Water Resource Management
<b>JSR</b>	Joint Sectorial Review
<b>KRFF</b>	Local Committees at Fokontany Level
<b>LDP WASH</b>	Local Development WASH Plan
<b>LP2D</b>	Lettre de Politique pour la Décentralisation et le Développement Local
<b>LSHTM</b>	London School of Hygiene and Tropical Medicine
<b>MCSP</b>	Maternal and Child Survival Program
<b>MID</b>	Ministère de l'Intérieur et de la Décentralisation (Ministry of the Interior and Decentralization)
<b>MEAH</b>	Ministère de l'Eau, de l'Assainissement et de l'Hygiène
<b>MEO</b>	Mission Environmental Officer
<b>MFI</b>	Micro-Finance Institution
<b>MHM</b>	Menstrual Hygiene Management
<b>MNP</b>	Madagascar National Parks
<b>MOC</b>	Maîtrise d'Ouvrage Communale (Communal Project Management)
<b>MoEEF</b>	Ministry of Environment, Ecology, and Forest
<b>MoFB</b>	Ministry of Finance and Budget
<b>MoID</b>	Ministry of Interior and Decentralization

<b>MoNE</b>	Ministry of National Education
<b>MoPH</b>	Ministry of Public Health
<b>MOU</b>	Memorandum of Understanding
<b>MTDN</b>	Minister of Posts, Telecommunications, and Digital Development
<b>NGO</b>	Nongovernmental Organization
<b>NPP-WSH</b>	National Platform for the Promotion of Water, Sanitation, and Hygiene
<b>ODF</b>	Open Defecation Free
<b>ODDIT</b>	Organisme de Développement du Diocèse de Toamasina (Toamasina Diocese Development Organization)
<b>ONCD</b>	National Office of Concertation and Decentralization
<b>ORN</b>	Office Regional de Nutrition (Regional Office of Nutrition)
<b>PCDEAH</b>	Plan Communal de Développement en Eau, Assainissement et Hygiène
<b>PCT</b>	Project Coordination Team
<b>PGDI</b>	Projet de Gouvernance et de Développement Institutionnel (Governance and Institutional Development Project)
<b>PGRM</b>	Projet de Gouvernance des Ressources Minières (Mining Resources Governance Project)
<b>PHE</b>	Population, Health, and Environment
<b>PIC</b>	Projet Pôles Intégrés de Croissance (Integrated Growth Pole Project)
<b>PIDA</b>	Program for Infrastructure and Development in Africa
<b>PIRS</b>	Performance Indicator Reference Sheet
<b>PMP</b>	Performance Monitoring Plan
<b>PNI</b>	WASH National Investment Plan
<b>PNP-EAH</b>	Plateforme Nationale de la Promotion de l'Eau, Assainissement et Hygiène (National Platform for the Promotion of Water, Sanitation and Hygiene)
<b>PPP</b>	Public-Private Partnership
<b>PPR</b>	Performance Plan Report
<b>PSEAH</b>	Programme Sectoriel en Eau, Assainissement et Hygiène
<b>Q2</b>	Financial Quarter two
<b>RANO WASH</b>	Rural Access to New Opportunities in Water, Sanitation, and Hygiene
<b>RDONE</b>	Regional Director of National Education
<b>RDOPH</b>	Regional Director of Public Health
<b>RDoWEAH</b>	Regional Director of Water, Sanitation, and Hygiene
<b>RPGEM</b>	Réseau des Promoteurs de Groupes d'Épargne à Madagascar (Savings Groups Promoters Network in Madagascar)
<b>SDG</b>	Sustainable Development Goal
<b>SE&amp;AM</b>	Suivi Eau et Assainissement de Madagascar (Madagascar Water and Sanitation Monitoring)



<b>SILC</b>	Specialized Investment and Lending Corporation
<b>SLC</b>	Structure Locale de Concertation (Local Dialogue Structure)
<b>SMILER</b>	Simple Monitoring of Indicators for Learning and Evidence-based Reporting
<b>SMMEC</b>	Société Malgache de Mutuelle d'Epargne et de Crédit
<b>SO</b>	Strategic Objective
<b>SRB</b>	Service Régional du Budget – Regional Budget Office
<b>SRMO</b>	Structure de mise en œuvre de la coordination Régionale
<b>STEAH</b>	Service Technique de l'Eau, Assainissement et l'Hygiène (Water, Sanitation and Hygiene Technical Department)
<b>STeFI</b>	Suivi Technique et Financier (Technical and Financial Monitoring)
<b>STH</b>	Soil-transmitted Helminth Infections
<b>STTA</b>	Short-term Technical Assistance
<b>SWA</b>	Sanitation and Water for All
<b>SWAp</b>	Sector-wide Approach
<b>SWOT</b>	Strengths, Weaknesses, Opportunities, and Threats
<b>TA</b>	Technicien d'Appui
<b>TDY</b>	Temporary Duty
<b>TFP</b>	Technical and Financial Partner
<b>TOR</b>	Terms of Reference
<b>ToT</b>	Training of Trainers
<b>USA</b>	United States of America
<b>USAID</b>	United States Agency for International Development
<b>USG</b>	United States Government
<b>VAT</b>	Value Added Tax
<b>VA/PSP</b>	Village Agent/Private Service Provider
<b>VSLA</b>	Village Savings and Loan Association
<b>WALIS</b>	Water for Africa through Leadership Institutional Support
<b>WASH</b>	Water Sanitation and Hygiene
<b>WASH-BAT</b>	WASH Bottleneck Analysis Tool
<b>WASH-BC</b>	WASH Behavior Change
<b>WHO</b>	World Health Organization
<b>WMA</b>	WASH Market Assessment
<b>WMDP</b>	WASH Market Development Plan
<b>WQAP</b>	Water Quality Assurance Plan
<b>WSP</b>	WASH Service Provider

## I PROJECT OVERVIEW/SUMMARY

<b>Project Name:</b>	Rural Access to New Opportunities in Water, Sanitation, And Hygiene, Madagascar (RANO WASH)
<b>Activity Start Date and End Date:</b>	June 15, 2017—June 15, 2023
<b>Name of Prime Implementing Partner:</b>	Cooperative for Assistance and Relief Everywhere Inc (CARE)
<b>Cooperative Agreement Number:</b>	AID-687-A-17-00002
<b>Name of Subawardees</b>	Catholic Relief Services (CRS), WaterAid, BushProof and Sandandrano
<b>Major Counterpart Organizations</b>	Ministry of Water, Sanitation and Hygiene; Ministry of Public Health; Ministry of Interior and Decentralization; Ministry of National Education; Ministry of Environment, Ecology, and Forests; Ministry of Higher Education and Scientific Research; Ministry of Finance and Budget; Ministry of Population, Social Protection and Woman Promotion; regional and Commune governments
<b>Geographic Coverage</b>	<u>250 communes in 7 regions</u> <sup>1</sup> : Alaotra Mangoro, Amoron'i Mania, Atsinanana, Haute Matsiatra, Vakinankaratra, Vatovavy and Fitovinany
<b>Reporting Period:</b>	1 July to 30 September 2022

### I.1 Project Description/Introduction

USAID awarded the five-year Cooperative Agreement AID-687-A-17-00002 for the USAID The Rural Access to New Opportunities in Water, Sanitation, and Hygiene Project (RANO WASH) to Cooperative for Assistance and Relief Everywhere Inc (CARE), on June 15, 2017. In November 2021, USAID approved a 12-month no-cost extension until 15 June 2023. CARE manages the RANO WASH consortium with core partners Catholic Relief Services (CRS), WaterAid, BushProof, and Sandandrano and access to a broad range of resource partners (Figure 1).

RANO WASH aims to increase equitable and sustainable access to water, sanitation, and hygiene services; maximize the impact on human health and nutrition, and preserve the environment in 250 rural communes in seven high-priority regions: Alaotra Mangoro, Amoron'i Mania, Atsinanana, Haute Matsiatra, Vakinankaratra, Vatovavy, and Fitovinany. A full list of the communes in the Project regions is presented in Annex I3.

To accomplish this goal, the Project is developing a systematic partnership with national and regional governments, water and sanitation institutions, communities, private sector actors, civil society organizations, and beneficiaries. The aim is to implement a strategic set of mutually supporting activities that contribute to three interlinked strategic objectives:

1. Strengthening the governance and monitoring of water and sanitation
2. Increasing the engagement of the private sector in the delivery of WASH services
3. Accelerating the adoption of healthy behaviors and the use of WASH services

<sup>1</sup> On August 11, 2021, the region of Vatovavy-Fitovinany was officially split into two distinct regions: Fitovinany, with Manakara as its capital, and Vatovavy, with Mananjary.



Figure 1 RANO WASH Consortium and resource partners

The Project contributes directly to the USAID/Madagascar Health Population and Nutrition's Intermediate Result (IR) 1.1 Sustainable Health Impacts Accelerated and sub-Intermediate Results, for which the development objective is "Improved Human Capacity to Contribute to the Country's Journey to Self-Reliance" as part of USAID/Madagascar Country Development Cooperation Strategy 2021-2025.

The Project also aligns with USAID Madagascar Water for the World Country Plan<sup>2</sup> through contributions to three out of four program components<sup>3</sup>:

1. Improved WASH Enabling Environment;
2. Public/Private Partnership for at least basic or safely managed service provision of clean water and sanitation;
3. Rural Sanitation and Hygiene Behavior Change.

The Project is also aligned with the Madagascar Government policies and priorities defined in the initiative for the Emergence of Madagascar (Initiative Emergence Madagascar or IEM) and the General Policy of the State (PGE).

This report covers the period from July to September 2022, which corresponds to the fourth quarter of the FY2022 fiscal year and the fourth reporting quarter of the RANO WASH project.

<sup>2</sup> <https://www.globalwaters.org/wherewework/africa/madagascar>  
[https://www.globalwaters.org/sites/default/files/wfw\\_madagascar\\_country\\_plan.pdf](https://www.globalwaters.org/sites/default/files/wfw_madagascar_country_plan.pdf)

<sup>3</sup> The fourth component is Urban Sanitation and Sanitation Service Provision.

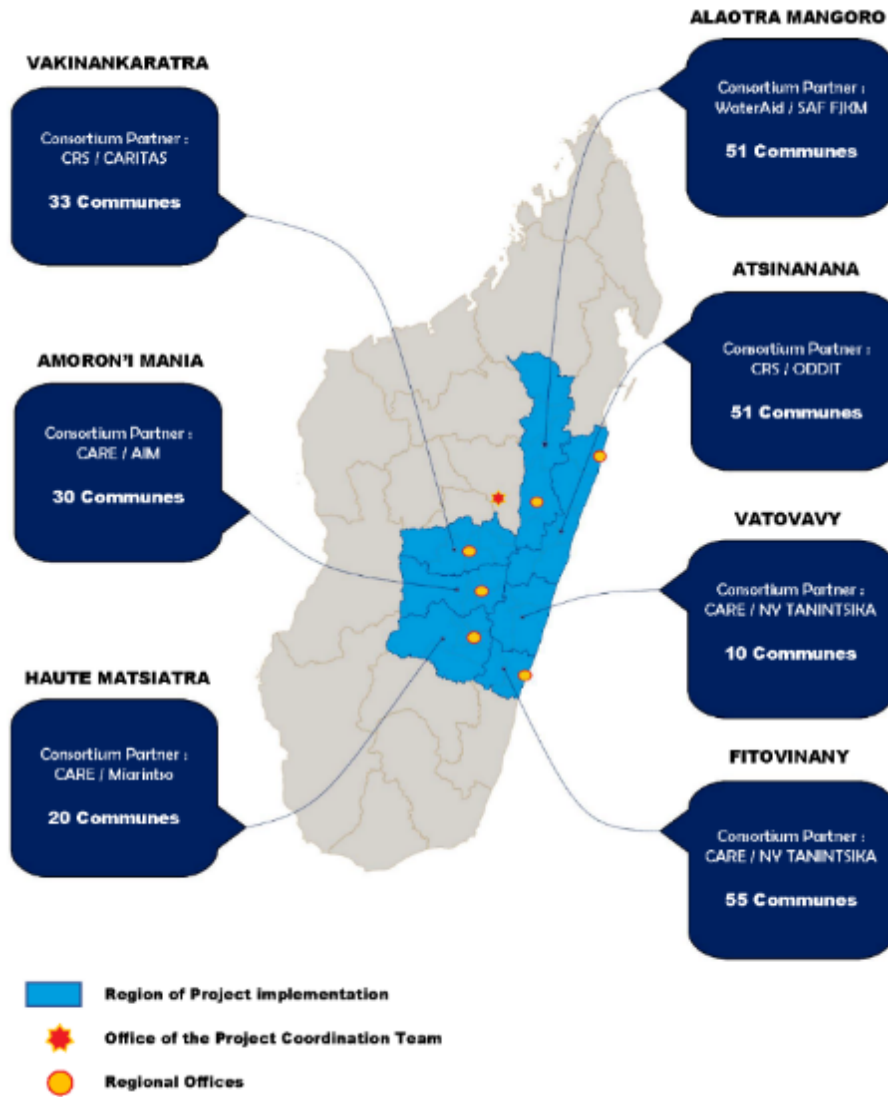


Figure 2. RANO WASH Regions

## 2 ACTIVITY IMPLEMENTATION PROGRESS

### 2.1 Implementation Status

In FY2022, RANO WASH gradually resumed a normal rhythm following the COVID-19 disruption. In the second quarter, the Project was affected by three tropical cyclones that significantly impacted the east coast of Madagascar. Vatovavy and Fitovinany were the most affected regions. Flooding from tropical storm Ana also impacted Alaotra Mangoro.

This year was also marked by the MEAH's change of Minister and leaders. RANO WASH strengthened its partnership with the new leaders and organized information sessions on the approaches promoted by the Project, particularly the system approach and the private sector engagement. The MEAH has demonstrated its commitment to taking ownership of the Project's achievements and scaling up interventions. MEAH and DREAH have participated in various events organized by RANO WASH, especially water system inaugurations, PPP promotion workshops, and dissemination workshops.

The Project has begun preparations for its withdrawal and transition. However, RANO WASH has further strengthened its support to Communes and water operators to invest in the coverage of drinking water services. Several events were organized to connect Communes with private operators and investors, including regional and national WASH fairs and meetings with more restrictive targets. It is especially during this last quarter that results are beginning to appear, as Communes have signed contracts with private operators following the application of unsolicited bids for the construction, investment, and management of water systems. Partnerships between WSPs, financial institutions, and/or equipment and material suppliers are beginning to materialize.

The Project organized and participated in several learning events to disseminate lessons learned and to encourage sector actors to scale up proven effective approaches, good practices, and lessons learned.

The project staff gradually withdrew from the Communes and Regions of intervention. Handovers were carried out with communal and local structures, with the DREAH and SRMOs and the MEAH.



## OVERALL INDICATOR PROGRESS

The table below summarizes the evolution of the indicators for the fourth quarter of FY2022 and Life of Project.

Table 1. Summary progress toward key indicators Q4.22 Update.<sup>4</sup>

Key Indicators	Q4			FY22			Life of Project (LOP)		
	Target	Actual	%	Target	Actual	%	Target	Actual	%
# of people gaining access to basic drinking water services	43,494	16,574	38%	89,122	55,736	63%	210,000	154,334	73%
# of people gaining access to safely managed drinking water services	21,827	6,331	29%	36,270	11,508	32%	90,000	56,845	63%
# of people gaining access to a basic sanitation service	22,647	49,461	218%	100,000	122,955	123%	362,712	365,667	101%
# of people gaining access to a limited sanitation service	7,034	56,282	800%	30,000	86,649	289%	264,401	296,050	112%
# of institutional settings gaining access to basic drinking water services as a result of USG assistance	4	10	250%	96	107	111%	211	222	105%
# of communities verified as "open defecation free" (ODF) as a result of USG assistance	131	405	309%	1,360	1,954	144%	5,429	5,543	102%
# of Communes certified as "open defecation free" (ODF) as a result of USG assistance	0	20	#DIV/0!	34	55	162%	68	77	113%

See Annex 7. RANO WASH Project Performance Review Q4.22

<sup>4</sup> Definitions of the WASH services ladders according to the Joint Monitoring Programme for water supply, sanitation and hygiene (JMP): [WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene \(JMP\) | UN Water](https://www.unwater.org/publications/who-unicef-joint-monitoring-programme-for-water-supply-sanitation-and-hygiene-jmp/) and [redesign\\_chart\\_JMP\\_JUL2017\\_3-02-e1501763782601.png \(627x1357\) \(unwater.org\)](https://www.unwater.org/publications/who-unicef-joint-monitoring-programme-for-water-supply-sanitation-and-hygiene-jmp/)

## 2.1.1 Strategic Objective I: Governance and Monitoring of Water and Sanitation Strengthened for Sustainable and Equitable WASH Service Delivery



### Key Achievements

- The resumption of **the national sector review** was implemented in December 2021 followed by a **national coordination meeting** in July 2022. Five RANO WASH regions have finalized their 2021 **regional sector reviews**.
- As part of the RANO WASH exit strategy, the RANO WASH MEAL team and the MEAH DSI team conducted **training of private operators, DREAHs, STEAHs and regional PTFs to use the improved SE&AM (DHIS2 platform)**
- **110 communes out of a targeted 105 communes** this fiscal year **(101%) worked with the private sector** to improve WASH services,;
- **221 of the 150 targeted WASH communal civil society organizations (140%) are operational**. These CSOs protect the rights of WASH service users through existing accountability mechanisms and dialogue spaces.
- **202 communes have functional accountability mechanisms** that integrate community feedback in the decision-making of authorities and service managers to improve WASH services.
- Of the 173 communes that have completed their budgeting process, **117 (68%) have increased their WASH budgets**. This indicates strong commitment from communes to strengthen the quality of WASH services provided to their constituents. The total volume of the budget programmed by these communes is currently estimated at **MGA 2.116 billion (USD 496,000)**.

Table 2 Summary of progress towards key SOI indicators Q4.22 Update.

Key indicators	Q4			FY22			Life of the Project		
	Target	Achieved	%	Target	Achieved	%	Target	Achieved	%
Progress on the establishment of regional coordination*.	Phase 5 Year 22	Phase 4 Year 22	80%	Phase 5 Year 22	Phase 4 Year 21	80%	Not applicable Sustained cycle		Not applicable
# of intervention communes increasing WASH budget	80	117	146%	80	117	146%	80	117	146%
% of intervention communes reporting in the SE&AM (in 250 municipalities)	86%	96%	112%	86%	96%	112%	86%	96%	112%
Progress in DREAH's ability to train and mentor communes	6 DREAH manages a STEAH dashboard	5 DREAH manages a STEAH dashboard	83%	6 DREAH manages a STEAH dashboard	4 DREAH manages a STEAH dashboard	83%	6 DREAH manages a STEAH dashboard	5 DREAH manages a STEAH dashboard	83%
# of intervention communes engaging with the private sector to provide WASH services	105	110	104%	105	110	104%	105	110	104%
# Common with trained STEAH	245	246	100%	245	246	100%	245	246	100%
# Number of communes with operational WASH user groups	250	357	142%	250	357	142%	250	357	142%
# Number of intervention communes with functioning WASH accountability mechanisms	200	202	100%	200	202	100%	200	202	100%

### IRI.1 Strengthened Government and Stakeholder Commitment and Accountability to Sector Development.

#### Output I.1.1 Sector coordination and learning mechanisms operating effectively under strong national leadership



Figure 3. Regional Coordination Pathway and current status



(See Annex 18. List of Regional Coordination Meetings held in FY2022)

This fiscal year, RANO WASH focused on promoting central ministry leadership to oversee and monitor the effectiveness of regional coordination mechanisms and to mobilize the sector at the national level to find a more effective form of coordination that will help regions find solutions to challenges that cannot be resolved at their level.

The Project's advocacy actions with other actors led to the implementation of the national sector review in December 2021 and a national coordination meeting in July 2022. The national sectorial review in December 2021 allowed MEAH to exchange with stakeholders on past achievements and discuss the strategic and technical orientations proposed by the Ministry to achieve the 2023 performance objectives. The last coordination meeting highlighted the resolutions of the sector review. It allowed the Ministry to elaborate on the sector's current status, their visions for the near future, and a discussion with stakeholders on the challenges to be addressed.

The resumption of these dialogues at the national level, led by the Ministry, marks a desire on the part of the MEAH to strengthen and improve collaboration and coordination at the sector level. Ministry's leadership in coordinating the sector is reinforced by establishing the UCPP (Program Coordination Unit). These advances in terms of dialogue mark a break from previous years at the national level. Although, the delay in formalizing the roadmaps developed during the last coordination meeting in July does not allow us to value these resolutions. A first draft report was submitted by RAN'EAU (in charge of the workshop documentation), but we are still waiting for the version reviewed by the Ministry.

The guidelines after the workshop should indeed engage the different stakeholders on the key topics of the Project: (1) service delegation contract, (2) sector regulations, (3) national and regional coordination, ...The private sector and civil society representatives participated actively during these sector meetings.

Five (5) of the seven (7) RANO WASH intervention regions have implemented their sector reviews during Q1 and Q2. The region of Vakinakaratra could not implement their reviews due to a change of director (DREAH) during the week of preparation. It was necessary to implement an induction of the new director to convince him of the importance of the event for the region. For Vakinakaratra, the revival of coordination meetings has been the first result. The next sector review for Vakinakaratra will cover the years 2021 and 2022 and follow the format proposed by the Ministry after the July national coordination.

The coordination meetings of the regional sector have continued periodically despite some slowdown in terms of frequency. We continue to advocate for the UCPP-MEAH to take the lead in revitalizing these meetings.

#### **Activities planned for the next quarter.**

- Technical support and coaching of UCPP-MEAH (Projects and Partners Coordination Unit) and DREAH for SRMOs to ensure the leadership of joint planning, financial analysis, discussions around sector progress, and effective coordination of the sector;
- Provide technical support to the UCPP-MEAH in improving the coordination mechanism at the national level;
- Provide technical support for the preparation of sectorial review

### Output I.1.2 Develop the institutional capacity of the Ministry of Water, Sanitation, and Hygiene to meet strategic needs.

The MEAH scheduled to validate the National WASH Policy to each national assembly regular session, but the submission was always rescheduled by the MEAH: (1) Valuation of its contribution to the plan for the emergence of Madagascar (PEM), (2) need to change the document into laws, (3) need for more time for the incoming team following the change of government, (4) need to improve the formulation of the law. The Ministry's team generally argues that it is not a defect in the content but a matter of form.

A MEAH focal point team has been very active in testing and promoting the life cycle cost, which aims to help communes improve their planning by considering all necessary life cycle services costs. The MEAH has finalized the first of the seven pilot communes, and a first draft has been developed.

#### Activities planned for the next quarter.

- Strengthen advocacy for WASH policy validation.

### IRI.2 Improved Sector Monitoring, Analysis, and Learning, Influencing Policy

#### Output I.2.1 SE&AM strengthened and extended.

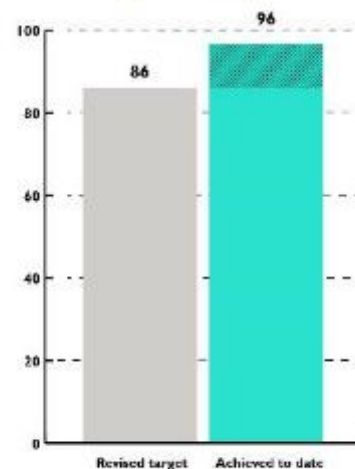
Our vision is to have an operational cycle of planning, implementation, monitoring, reporting, and evaluation that allows for a systematic assessment of sector performance and a mechanism to document lessons learned. The following are the progress made during FY2022 that contributes to this vision.

During FY22, the new SE&AM system was put online, and the MEAH developed a monitoring and evaluation plan for the sector. The ministry has begun to mobilize stakeholders to use the system.<sup>5</sup> RANO WASH and the Ministry have implemented training for regional actors, DREAH, private operators, and STEAH of the communes of intervention of RANO WASH.

Several challenges had to be overcome this year: (1) breakdown of the Ministry's servers required to host the computer system online, (2) change of the Ministry's organization chart having divided the directorate responsible for SE&AM into two (Directorate of Computer Systems, Directorate of Planning and Monitoring and Evaluation), (3) additional request from the Minister to implement a specific module for monitoring the Ministry's project activities.

At the local level, 240 of the 250 communes continued to transfer WASH data to the DREAH to facilitate the transition to the updated system. The Ministry has trained actors on the use of SE&AM, and the Ministry and RANO WASH have implemented training and

**% of intervention communes reporting in the national WASH monitoring system (SE&AM)**



**112%**

<sup>5</sup> The DSI/MEAH team is approaching key partners to fund training at the regional level. They have mobilized funding from UNICEF for two regions – Androy and Anosy – so far, nine (9) regions out of 23 trained. The system has a Google Analytics Parameter that can count the number of visitors and the time spent on the site SE&AM.

coaching in the 7 DREAH where RANO WASH works, with actors in these regions as well as STEAH of the communes of intervention of RANO WASH (See Annex 22. SE&AM / Monitoring System Strengthening Q4.22). We continue to coach these actors and improve the system following the observations.

### Activities planned for the next quarter.

- Continue to train and coach DSI/DPSE-MEAH (directorate of information systems and directorate of planning and monitoring-evaluation) to improve the sector's monitoring and evaluation system and mobilize stakeholders to ensure their respective roles in the WASH sector monitoring system;
- Provide technical assistance to DSI/DPSE-MEAH and DREAH and coach each SRMO on SE&AM updates, tools, and processes to evaluate the progress of regional targets periodically;
- Provide technical to the DREAH for operationalizing STEFI in the intervention regions.

### Output 1.2.2 Implement the learning program to increase and better regulate private sector engagement in water, sanitation, and hygiene.

The sharing at the SRMO level has become a habit this fiscal year. The topics discussed were diverse; we can mention the following points: (1) integrated water resources management; (2) Madagasikara Madio regional campaign, (3) developing and implementing communal budgets, (4) sharing the achievements in accountability mechanisms, (5) exchange experiences from the private sector, (6) exchange experience on consultation structures...

In September 2022, as part of the gradual withdrawal of the RANO WASH project at the communal level, the SRMOs and the DREAHs were the recipients of the situation of the communities and some assets and inventory<sup>6</sup> of the Project.

A workshop to capitalize on the program's achievements was also held at the national level, which mobilized agents from the central ministries, regional directorates, and technical and financial partners to reflect and discuss twelve selected themes (see section 4. For more details)

The operationalization of the *Suivi Technique et Financier* (STEFI: technical and financial monitoring services) in project regions to monitor the performance of private water supply operators and communes as contracting authorities is a key point that we have supported to ensure learning.

The table below presents the situation at the regional level for operationalizing regional STEFIs.

Table 3. Status of Regional STEFI Implementation Q4.22

Region	Status of STEFI implementation at the regional level
Alaotra Mangoro	A cycle was completed in Q2 with the mobilization of 17 Communes. Recommendations were provided to communes for actions. Another cycle was started in Q4, during which the questionnaire was improved and rolled out to communes for data collection. DREAH is awaiting results from communes.

<sup>6</sup> Assets under 5,00\$ value. Disposal of assets over 5,000\$ value will be finalized and submitted to USAID for approval in Q1,FY23.

Region	Status of STEFI implementation at the regional level
<b>Haute Matsiatra</b>	One cycle was completed with restitution for 117 water systems for 30 municipalities during Q2. Presentation of 12 commune-level STEFI results was held from April to September 2022, with recommendations provided to all relevant stakeholders.
<b>Vakinankaratra</b>	During Q3, the first restitution of the technical and financial monitoring analyses was implemented for the Vakinankaratra region. It concerned three water supply systems in the communes of Faratsiho, Andranomanelatra, and Ambatomiady. Data analysis is currently ongoing for other communes, and the presentation of results is scheduled for October/November 2022.
<b>Vatovavy and Fitovinany</b>	6 of the 15 targeted systems managers have now transferred their reports to the DREAH office following the field trip by the DREAH team to verify the managers' challenges and mobilize them to transfer their reports to share the analysis results during Q4. The manager of the five other systems still requires close support from DREAH to fill out the template, and the four remaining systems are new and will integrate the process soon.
<b>Atsinanana</b>	The DREAH team already communicated the recommendations emerging from STEFI data results analysis to the commune systems managers. They are currently sending letters to follow up on such recommendations. They plan to convene each commune and system manager to discuss further how to improve their water systems both technically and financially.
<b>Amoron'i Mania</b>	STEFI data results have been received by DREAH from two RANO WASH systems managers and will be analyzed by DREAH. Recommendations will be sent to systems managers to improve the water systems. The DREAH plans to send the template to other systems managers to scale up the process. They also suggest simpler templates for community-managed systems.

### Activities planned for the next quarter.

- Facilitate exchange between the private sector, partners, and authorities during the WASH national exhibition planned in December 2022. The following points will be highlighted: RANO-WASH's experience in testing flexible PPP models, experience with the commune technician model (STEAH);
- Coach MEAH and DREAH to provide technical assistance to each SRMO to identify, document, and share good practices related to PPP models at the regional level.

### IRI.3 Strengthened Subnational Systems

#### Output I.3.1 Decentralized resources available for sustained WASH service delivery

During FY2022, RANO WASH supported the DREAHs and the communes to plan and mobilize resources that incorporate private sector participation and monitor the progress of their plans.

As a result of RANO WASH efforts in FY22, DREAH and SRB-SRI have demonstrated that they can provide oversight and technical support to communes (under I.3.1) and that an active civil society can reinvigorate commitments at the commune and service provider level (under I.4).

The following points marked this fiscal year.

- **The regional coordination structures have helped to position themselves about a common goal, to collaborate in a coordinated way to organize the regional event, to face challenges, and to maximize the impacts.** We have implemented annual review processes, joint planning, and learning exchanges through

these coordination meetings (See Annex 18 on SRMO meetings). Discussions are underway at the regional level on the impact of the withdrawal of RANO WASH on the functioning of these coordination structures and the measures to be taken (See Annex 16). Interventions at the national level to formalize the periodic holding of these coordination meetings should minimize the risk of diminishing motivation for the continuity of these regional coordination activities.

- **Strengthening the practice of the Ministry and its regional directorates in training and coaching STEAH** (WASH technical services at the communal level) has also been one of the pillars of our support during this fiscal year. Training modules for STEAH developed at the beginning of the Project by RANO WASH have been improved and implemented annually by the DREAH. Thus, we currently have two trainers per region. A training of STEAH through smartphones has also been developed and tested to reinforce this training. This module was developed by Connecteo (a private operator), the trainers of the DREAH, and trainers within the MEAH. And these modules were tested within 160 Communes.
- **The Regional Directorate of the Ministry of Finance and Budget of the seven intervention regions have engaged with the RANO WASH team to strengthen the communes' capacity to implement their budgets.** These collaborations involve training communes on budgeting, including the WASH component of the budget, mobilizing tax revenues, and seeking greater transparency in writing WASH budgets. While significant progress has been made on the first two points, special efforts are still needed to record expenses.

Activating these regional institutional supports and improving their coordination is important in making communal WASH systems more resilient.

#### **Activities planned for the next quarter.**

- Support UCPP-MEAH to supervise DREAH to lead the SRMO in planning, conducting meetings, and preparing data visualization/materials around specific themes, including accountability mechanisms and the promotion of private operators for the development of WASH services within each region;
- Work with DSI MEAH and MID to support DREAHs and District to improve processes that allow them to monitor and mentor communes and STEAHs through a minimum standard so that the commune can gradually evolve towards strengthening its WASH system;
- Work with UCPP-MEAH to improve dialogue between DREAH and the regional budget department (SRB), the regional tax department (SRI), and district services to identify processes that enable these institutions to effectively support communes in local resource mobilization and financial planning for improved access to WASH and quality of related services;

#### **Output 1.3.2 Strengthening the management capacity of communes to provide WASH services.**

To strengthen the capacity of communes to fulfill their mandate to provide quality WASH services, RANO WASH focused on two key areas this fiscal year: (1) **advocating and working with communes to integrate the WASH program into their budgets** and implement a tax revenue mobilization strategy, and (2) **supporting communes to develop tools** to attract the private sector investment in their WASH projects.

By the end of FY22, communes have strengthened their WASH systems, enabling them to improve access to equitable quality WASH services progressively.

For example, the following changes have occurred in these communes:

- **98% of the 175 communes that submitted their budgets have a WASH budget.** Gradually, WASH budgets validated at the commune level are increasing. 117 communes have increased their WASH budgets for this year out of the 80 communes targeted. The total WASH budget for all these communes is estimated at 2.116 billion ariary (~ USD 492,000). This figure has an increase of 420 million ariary compared to last year's budgets for these communes (USD 99,000).

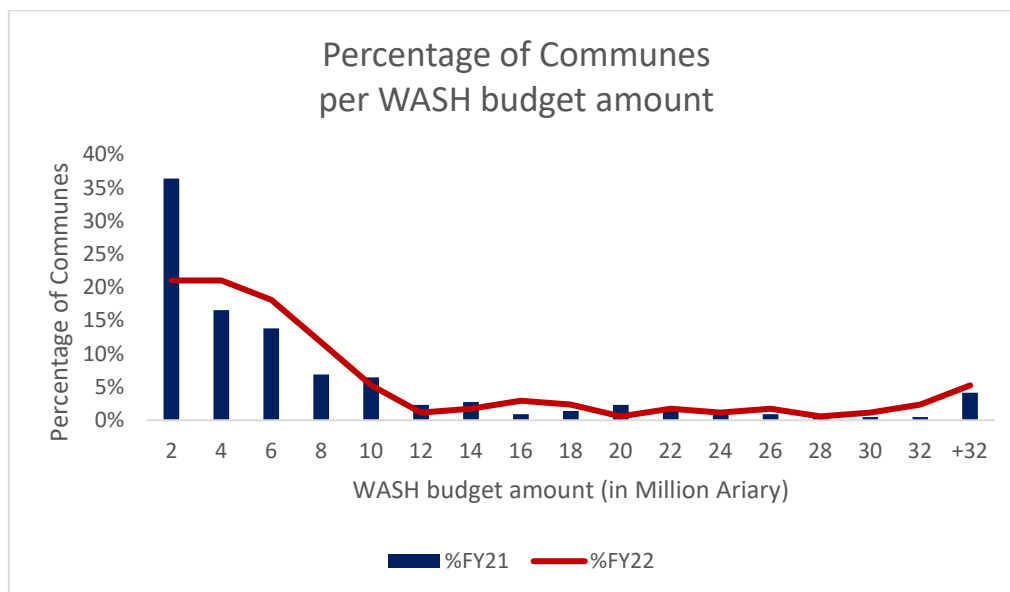


Figure 4. Number of communes distributed according to the amount of their 2022 primary budget compared to their 2021 primary budget

- **One hundred ten communes partnered with private operators to improve their progress in access to water, sanitation, and hygiene, against a target of 105 communes targeted for this fiscal year.** This includes delegating the management of drinking water systems in their districts to a private operator under a PPP, working with local masons or seamstresses to improve access to latrines for households and institutions, improving women's access to washable sanitary towels, repairing communal infrastructure such as latrines in CSBs and rehabilitating water catchments, and standpipes.

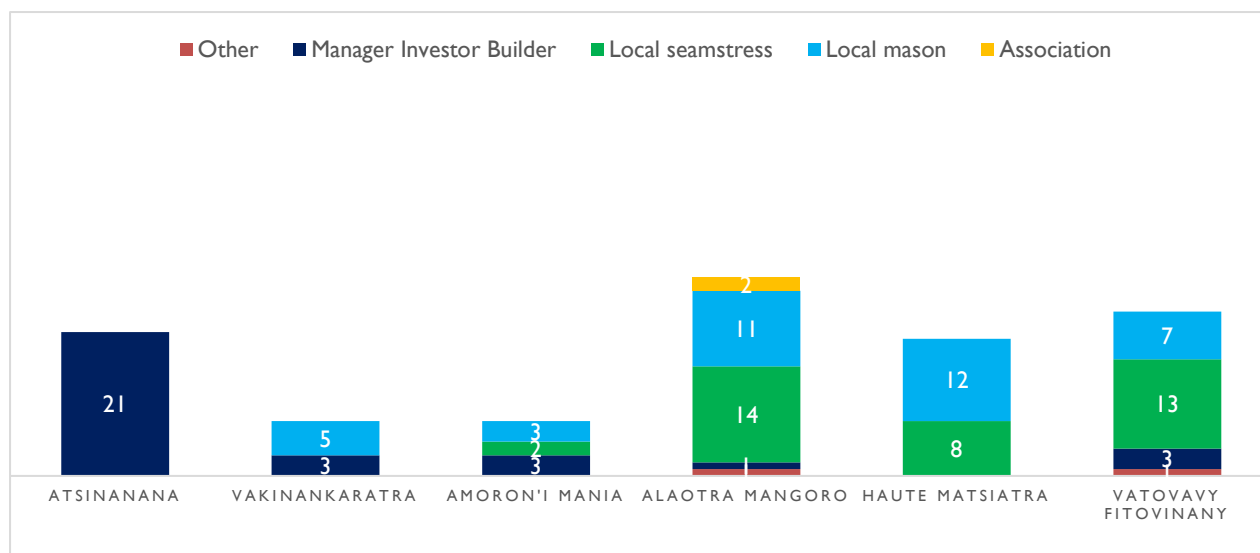
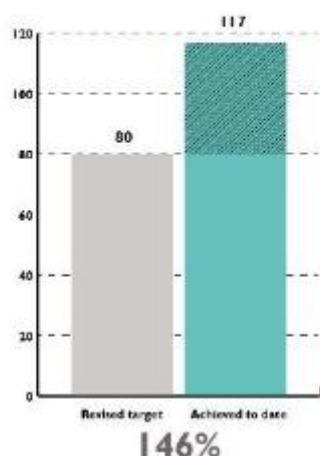


Figure 5. Commune partnering with private operators

The following capabilities have been developed to maintain and continue these efforts at the commune level:

**# of intervention communes increasing WASH budget**



- A total of 244 communes have trained STEAHs (out of a target of 240 by the end of the fiscal year).
- Two hundred twenty-three communes have finalized their WASH plan. During this quarter at the commune level, efforts have been made to strengthen local authorities to take ownership of the PCDEAH planning documents and monitor their implementation.
- Two hundred forty-five communes have implemented annual reviews and established action plans to strengthen sector governance at the communal level.
- Supporting the communes to have a presentation of the business opportunities for the private sector to be used during the meetings with the private sector, especially during the fairs organized at the regional level.

The lack of revenue to ensure the implementation of planned expenditures has been the main barrier for the Commune along with various technical challenges (use of Excel file models shared by the administration, link between program and budget, the conflict between mayor and council, etc.). The collaboration with SRI (Regional tax services) and commune to improve tax revenues and the mobilization of the private sector through fairs between communes and the private sector was important during this fiscal year.

(See Annex 20. Life Cycle Cost and Results and Annex 21. Communal WASH Budget Q4.22)

### Activities planned for the next quarter.

- Support the MEAH Water Department team to supervise DREAH to accompany communes in establishing working relationships with the private sector;
- Support the MEAH Water Department team to supervise DREAH to continuously promote the dialogue between the commune and the community in collaboration with CSO-WASH on the constraints and progress of private sector mobilization;
- Support MEAH- LCC group in supervising the test for financial planning methods in six (6) communes to improve cost forecasting for the sustainability of services.

### IRI.4 Increased community control over WASH services

#### Output 1.4.1 Commune and communities with an active civil society, aware of and organized to claim their right to water and sanitation

RANO WASH is considering that communities ensure access to and quality of WASH services by actively engaging with the authorities to improve WASH services. CSOs will play an important role in supporting and mobilizing the community to demand and respect rights related to WASH services and in encouraging the communes and WASH service providers to respond to community complaints and feedback on the quality of services.

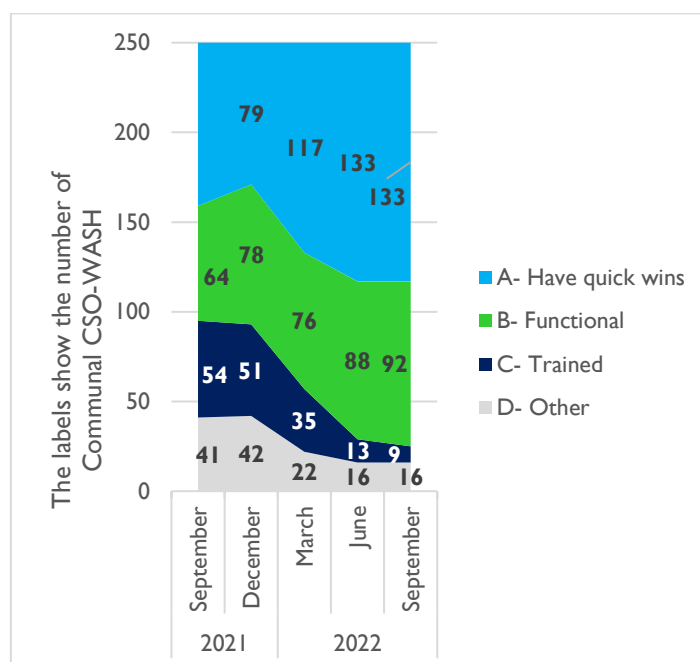


Figure 6. Progress of the networks at the level of the civil society organization communes during the last four quarters (CSO-WASH)<sup>7</sup>

Three hundred fifty-seven service user groups are currently operational<sup>8</sup>, compared to the target of 255 at the end of the Project. These 357 service user groups are composed of :

- 226 communal networks of civil society organizations working in the WASH sector (CSOs-WASH) - active in the water, sanitation, and hygiene of the entire commune;

<sup>7</sup> In Figure 6, 7 8: : "Other": the municipalities where the process has not yet resulted in the constitution of the targeted structures

<sup>8</sup> An ASUREP is considered operational if it is legally constituted and has a work plan with clear objectives that is implemented.



- 131 *Associations of Users of Drinking Water Supply Systems (ASUREP)*. -protecting the rights of users who have access to the drinking water service for 131 drinking water supply system

To strengthen the collaboration and complementarity of the civil society organization network at the commune level (CSO-WASH) and the associations of users of drinking water supply networks (ASUREP), RANO WASH reinforced the retraining of these actors on their roles and responsibilities as well as the dialogue between the two groups of community representatives. As with each quarter, examples of service improvements achieved by these user groups are shared in the appendices in the "quick wins" section.

This graph shows an increase in the number of CSO-WASH "with rapid gain" this year (from 76 in December 2021 to 133 in September 2021). This shows an improvement in these CSO-WASH in producing changes in access to WASH. Because of their activities, the CSO-WASH are among the key actors bringing issues to the discussion at the Local Dialog Structure level (SLC).

The result of their activities includes: improving the WASH Communal budget, accompanying communal objectives to be ODF, advocating for better waste management, advocacy access to latrines in administrative establishments, protecting water resources, advocating for better sanitation at the communal market, monitoring grievances, etc.

207 CSO-WASH complete self-assessments via their annual reviews last quarter and continued to update their action plans this quarter. As a reminder, these action plans consider a transition plan corresponding to the withdrawal of the RANO WASH project. Exchanges were also conducted at the district level to strengthen the links between communal and regional CSO-WASH and the involvement of district leaders to share the challenges and successes of these civil society organizations in their constituencies.

Experience sharing was done at the SRMO meetings on the importance of the roles played by the CSO-Communities, and the results of the self-diagnosis of CSO-WASH were shared with the regional CSO-WASH to help them in their future support. Sharing at the national level was done on the results of the CSOs during the RANO WASH project capitalization seminar in late September.

#### **Activities planned for the next quarter.**

- Support National and Regional CSOs-WASH group to advocate to share experience at the national and regional level;
- Support CSO-WASH groups to discuss the sustainability and productivity of these communal CSOs-WASH as well as the ASUREPs;
- Investigate information channels to support CSOs in tracking the adoption of accountability mechanisms, documenting successes and lessons learned, and identifying ways to share them within the coordination platforms and with the communities themselves;

### Output I.4.2 Communities with functioning WASH accountability mechanisms

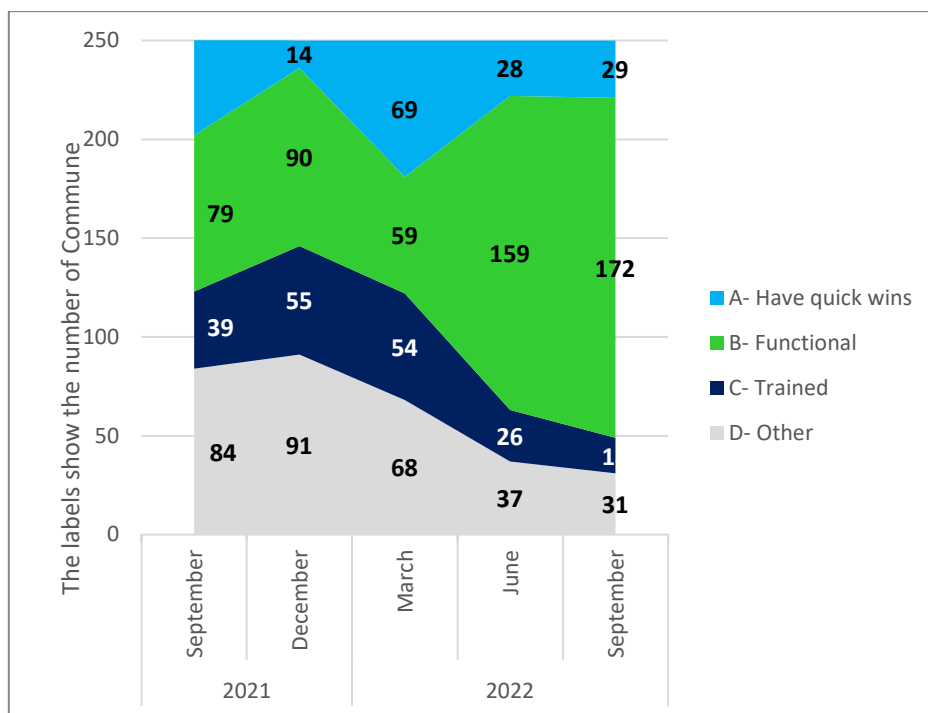


Figure 7. Progress of the commune in accountability mechanisms in the last quarters

During 2022, 202 communes had an operational accountability mechanism out of a target of 200, and 245 local consultation structures (Structure Locales de Concertation, or SLCs) have engaged in exchanges between dynamic actors in the commune, including communities, service providers, and authorities. These spaces have made it possible to raise local debates about the quality and cost of services and to engage the responsibilities of the communes and service providers.

Illustrations of this responsiveness are provided in Annex 19: Quick Wins from the Local Structures FY22.

While (1) the revitalization of SLCs is systematic at each budget preparation (Q1), planning activities at the commune level, and debates on challenges raised at the local level, (2) revitalizing accountability mechanisms were necessary since Q2. This revitalization effort has resulted in a much higher percentage of accountability mechanisms that are now functional despite fewer quick wins in Q3-Q4 than in Q2.

During this year, RANO WASH strengthened communication with the community by using community feedback mechanisms to gradually improve the quality of services and the requirement for communes and service managers to be more responsive to feedback. Local structures such as ASUREP, CSO-WASH, Chef fokontany, and STEAH have actively participated in these mobilizations following refresher training for these structures on their roles and responsibilities and the importance of accountability mechanisms as key tools for improving their results. In some communes, communal actors have had to review the roles of stakeholders in the mechanism to ensure the revitalization of the accountability mechanism.

The MID and the districts are committed to monitoring and reminding the communes of the importance of dialogue spaces like the SLC. Each institution has yet to be engaged to provide external support to the communes to ensure the continuity of accountability mechanisms. The

district was our initial scheme, given the importance of citizen participation in the decentralization laws; nevertheless, their commitments need to be shown.

Sharing of the impact of these structures was done at the SRMO level to influence regional actors on the importance of these mechanisms, and contact was made with the decentralization ministry team (MID) for exchanges to have an institutional monitoring mechanism for these structures. Thus, we were able to influence the monitoring of these tools at the level of the local governance index for WASH: a process to be implemented at the commune level and adopted at the MEAH and MID levels. However, the means to disseminate the tool across all Madagascar's communes have yet to be identified. RANO WASH is currently advocating to continue the discussion to elaborate on the process to disseminate the tools, the corresponding budget, and how to mobilize the funding. The ministry has begun to mobilize stakeholders to use the system.

At the national level, through the RANO WASH capitalization workshops, we have shared the achievements of these structures for a better quality of services and a better mobilization of power holders.

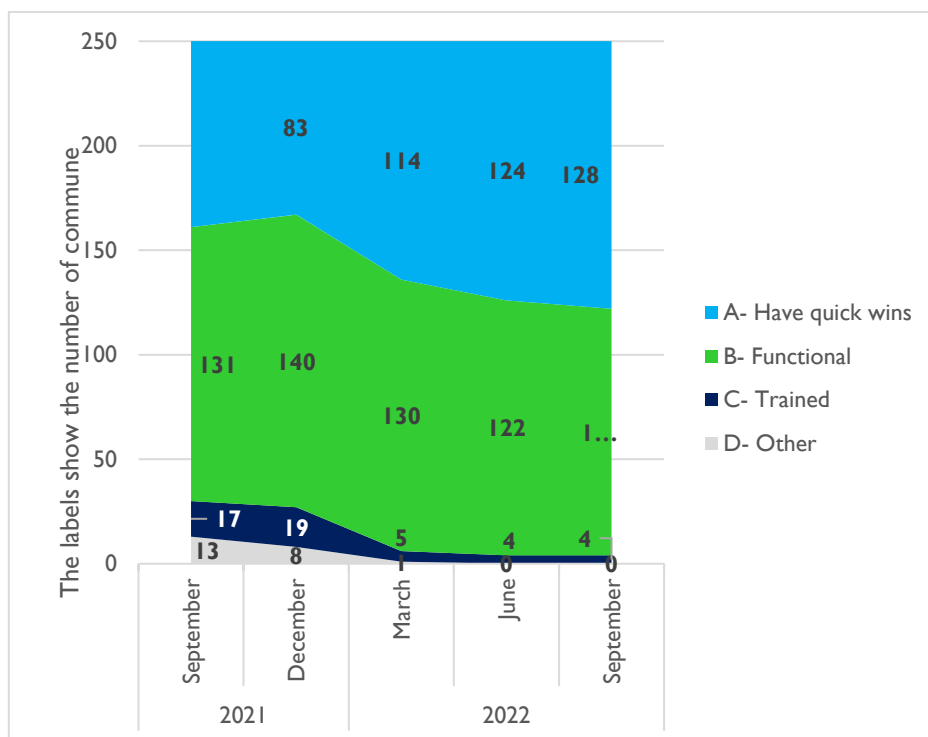
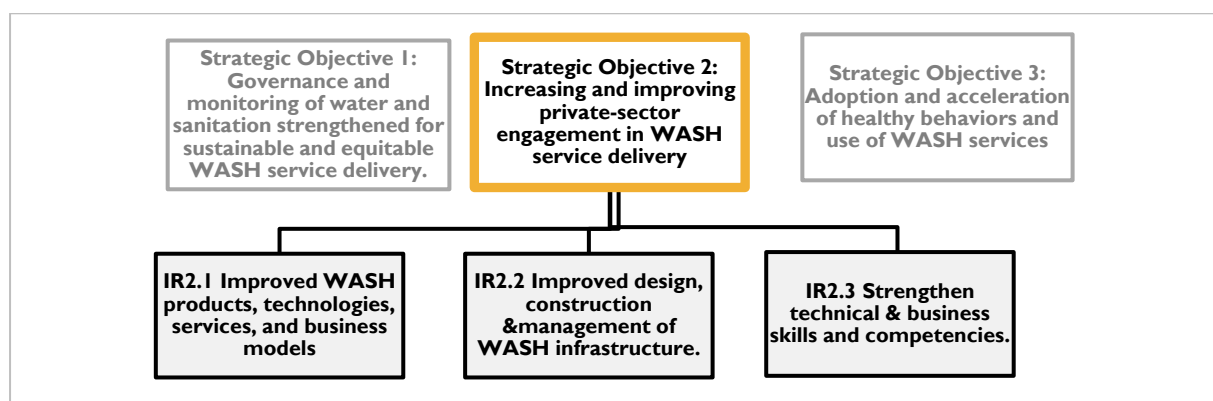


Figure 8. Progress of the Commune in Local Dialogue Structures (SLC) over the last four quarters

### Activities planned for the next quarter.

- Continue sharing of lessons learned for local structures and accountability mechanisms;
- Strengthen discussion with the MID, DREAH, and regional institutions to improve and monitor SLCs and accountability mechanisms.

## 2.1.2 Strategic Objective 2: Increasing Private-Sector Engagement in Delivering WASH Services



### Key Achievements

- **64 water systems**, of which **49 water systems in 38 communes** are operational and **15 water systems are under construction**;
- **55,736 of 89,122 people (63%)** gained access to basic drinking water services, and **11,508 of 36,270 people (32%)** gained access to safely managed drinking water services, with projected sales of **96,827** for new water users in FY23;
- The project reached **154,334 out of 210,000 (73%)** Life of Project objectives for the number of people gaining access to basic drinking water services and **56,845 out of 90,000 (63%)** for the number of people gaining access to safely managed drinking water services;
- **122,955 out of 100,000 (123%)** people targeted gained access to basic sanitation, and **86,649 out of 30,000 targeted (289%)** to a limited sanitation service in FY22;
- The project reached **101% of Life of Project** objectives for the number of people gaining access to **basic sanitation services** with **365,667 out of 362,712 targeted**, and **112%** for the number of people gaining access to **limited sanitation services** with **296,050 people out of 264,401 targeted**.

Table 4. Summary progress toward key SO2 indicators Q4.22 Update

Key Indicators	Q4			FY22			Life of Project		
	Target	Actual	%	Target	Actual	%	Target	Actual	%
# of WSPs/ artisans/vendors issued loan products for investment in WASH systems	0	4		40	51	128%	181	192	106%
# of people gaining access to basic drinking water services	43,494	16,574	38%	89,122	55,736	63%	210,000	154,334	73%
# of people gaining access to safely managed drinking water services	21,827	6,331	29%	36,270	11,508	32%	90,000	56,845	63%
# of people gaining access to a basic sanitation service	22,647	49,461	218%	100,000	122,955	123%	362,712	365,667	101%
# of people gaining access to a limited sanitation service	7,034	56,282	800%	30,000	86,649	289%	264,401	296,050	112%

Achievements for access to safe water in FY2022 are 63% for basic services and 32% for safely managed services, 73% for basic services, and 63% for safely managed services compared to Life of Project. A significant increase has been noted even though the targets are not met. In previous years, our efforts have been focused on supporting private operators to increase connections to water systems built with the project.

At the time of reporting, RANO WASH has only collected routine quarterly data for this outcome level indicator, which does not fully reflect access to basic or safe drinking water; for instance, most of the private connections are also informal shared connections with multiple other households that are not systematically counted on a routine basis.

These two indicators are now collected as part of the annual survey. The number of people accessing water is determined using the reverse of the inclusion probability in the data sample<sup>9</sup>. The annual survey for FY22, per discussion and approval from USAID, has been conducted as part of the final Project evaluation (November-December 2022), and the results will be fully reported with the Q1.FY23 quarterly report.

Towards the end of FY21 and FY22, our efforts have been multiplied to accompany the WSPs in their marketing activities to extend services in localities not covered by the system, strengthening their access to financing services or payment facilities from equipment and material suppliers, banks, and capital and guarantee operators. This support takes time to achieve increased water access. WSPs are beginning to invest in the extension of water systems through negotiations with the Communes, and the approach of setting up automatic water kiosks is beginning to show results.

As for access to sanitation services, the achievements are still more and more impressive. We are convinced that the systemic approach through strengthening leadership at all levels is yielding good results and will ensure the scaling up and sustainability of the achievements.

## IR2.1 Strategic Development and Innovation for Private-Sector Engagement in WASH Service Provision

### Output 2.1.2 Regional WASH market development plans drafted

#### Developing WASH markets in the project's regions of intervention

<sup>9</sup> This methodology has been approved by USAID and implemented in as part of the FY21 annual survey.

In FY22, the project actively disseminated WASH market opportunities and public-private partnerships for drinking water services. The goal is for communes, development actors, and especially the private sector to take ownership of the concept, commit to it, and scale it up.

Potential studies marked Q1.22, and technical support to the Communes to sell the market opportunities in their localities to engage private operators to invest. The project worked with MEAH and DREAH to organize regional and national fairs to connect Communes with investors. Four WASH fairs have involved seven companies in investing in water services. Achievements began to materialize in Q4.22 with 11 systems built and/or under construction for an additional 2,391 potential beneficiaries. The graph below shows the results of support to Communes to engage with private operators for WASH services.

The project also conducted selective dissemination to specific actors starting in Q2.22 to scale up the concept. Several actors have expressed interest in adopting and scaling up the RANO WASH approach. Below are some examples:

- Helvetas expressed interest in ensuring the scaling up of the PPP approach in the Amoron'i Mania Region,
- Nexta, as a business incubator, integrates the support of WSPs in their area of activity,
- Aris Trading, a supplier of equipment and materials, adapted its offer for WSPs taking into account the constraints identified during the implementation of RANO WASH activities.

# of intervention communes engaging with private sector to provide WASH services



These initiatives contribute to a stronger and more sustainable enabling environment for WSPs in which operators have better access to business coaching and incubation, more affordable and flexible supply chains that reduce their investment costs, and a wider network of operators demonstrating successful models.

The RANO WASH learning event in September 2022 also aims to disseminate to other NGOs and stakeholders the achievements and potentials of the sector highlighted with the project intervention.

### Management Of Drinking Water Systems

Managing contracts with WSPs remains challenging in promoting PPP for drinking water services. RANO WASH has put in place two contracts for the PPP model applied by the project: the construction contract between the project (through the consortium members) and the WSP and the management delegation contract between the Commune and the WSP and validated by the MEAH.

In FY22, RANO WASH continued to support the Communes and DREAHs to complete the contracting process with WSPs to manage water services with the model developed with MEAH for 20 years. The DREAHs are active in finalizing contracts at the communal and

regional levels. However, changes in ministers and MEAH leaders at the central level slow down the approval of contracts at the national level.

Thirteen management delegation contracts and amendments to delegation contracts are awaiting approval by the Minister in charge of drinking water. Thus, there are still 50 contracts to be signed before the end of the project. The Minister has expressed his commitment to monitor the situation closely, but this remains a major undertaking for the project. The main reason given by the department for the legal case is the hesitation of the MEAH to give the Communes their full power as the project owner.

We are in the process of involving the Ministry of the Interior and Decentralization, which promotes communal project ownership for the country's development. Such an obstacle could reduce the willingness of operators to invest in the sector.

We also encountered a specific case with the Commune of Amparafaravola. The WSP does not honor its commitments to the construction of the water system and the delivery of water services to the population. And this is contradictory to what is happening with the signing of the contract because the MEAH, which wants to manage the contract for fear of the inability of the Communes to manage conflicts, is not assuming its role as regulator. The consultations with all the stakeholders are dragging on. We continue to support the Commune in taking the case to court. Annexes 26 and 27 provide more details on the actions taken by the Commune and the current situation.

### **Water kiosk pilot Update: an integrated coverage model**

RANO WASH developed a distribution model in FY22 that addresses the challenges faced by the private sector in expanding system-level coverage. The need to increase the number of users of the drinking water system at a reasonable cost has led to the conclusion that collective water points represent a potential coverage alternative if the technical and financial management system of the water points is mastered, thus becoming a transitional source of income to accumulate financial resources to finance promotional campaigns on the price of individual connections.

In Q1.22, the project focused on assessing the capacity of young entrepreneurs to develop a distribution technology that could be used on an electronic basis. Young Entrepreneurs from Manampy Corporation developed a coin-operated kiosk, from which customers purchase a fixed volume of water by inserting a coin from a local shopkeeper. This model obviated the need for a kiosk operator and reduced staff requirements, thus lowering operating costs. Technical tests were conducted over more than six months.

In Q2.22, began the improvement of the business model around the kiosk. In Q3.22, the project focused on integrating the developed device into existing systems, including developing inter-private contracts and intervention at the commune level. A contract between WSP and Manampy Corporation was applied to specify that payments WSP received from kiosk consumptions would be used to finance promotional campaigns for private connections. Then, Q4.22 focused on the first deployments at the commune level.

## Box I. Water kiosks and JIRAMA

Being interested in the presentation of the model of automatic kiosk type, during the capitalization seminar of RANO WASH of September 21-22, JIRAMA requested a meeting to present the two types of automatic kiosks used by RANO WASH. The RANO WASH team accompanied by the two private operators, Ny Ravo and Manampy Corporation, designers of the two models of automatic water kiosks presented the models to the Directors of JIRAMA. The model of Manampy Corporation is the digitalized kiosk and the one of Ny Ravo, mechanic. JIRAMA was very interested in the digitalized model of MANAMPY Corporation for use in the city like Antananarivo. Ny RAVO explained the advantage of the mechanical kiosk in rural areas to facilitate maintenance and servicing.

JIRAMA has two objectives with the use of automatic kiosks

- the realization of the JIRAMA EAU III project financed by the World Bank, to install 50 thousand social connections in 5 years (of which 10 thousand/year) in Antananarivo.
- the possibility of granting water resale contracts to users after the meter, which MANAMPY Corp/Ny RAVO will also be able to do at their expense.

Below are the next steps with JIRAMA for the promotion of water kiosks in urban areas:

- JIRAMA will send us a list of needed improvements based on their needs
- RANO WASH will share the progress of the research conducted by MANAMPY Corp and the documents on water kiosks.

See also Annex 39. Implementation Steps for the extension of the water system managed by JIRAMA in Antanifotsy

### Output 2.1.3 Increased availability and accessibility of types and range of financial products for WASH services and products

One of the major challenges companies face is access to financial products. RANO WASH has focused in FY22 on connecting businesses with the options available and the financial institutions that offer the different options.

Partially subsidized loans (case of the financing developed with SUNREF), standard business loans (BNI, KRED, SMMEC BAOBAB, BOA...), financial guarantees (Fonds De Garantie de Madagascar, Solidis Garantie), capital investments (Solidis Capital Investments, Mirakap...), CSR mobilization (Fanalamanga...) and non-institutionalized resources such as diaspora associations from the communes of intervention were presented to the companies.

At the current stage of maturity of the sector, companies are starting to get their bearings regarding loans. The main issue of the project is to initiate a dynamic of loans to finance the financial needs of the enterprises necessary for their development. This dynamic is to be established both on the demand side (managing companies) and on the supply side (financial institutions).

# of WSP/artisans/vendors  
issued loan products for  
investment in WASH systems



Revised target : 40

Achieved to date : 51



Following the three presentations and networking events organized by the project, the financial sector has evolved:

- **On the supply side, financial institutions and guarantee funds have been triggered and perceive the WASH sector as a new sector with potential.** This interest is reflected in their initiatives in communicating about the sector, resulting in the development of new offerings (e.g., revenue collection is done by one WSP in Atsinanana on six water systems where SMMEC is collecting the water consumption billing at the customer level. Loans to users to finance specific SMMEC connections were developed in the Amoron'i Mania region for SMMEC-registered rural households. In Amoron'i Mania, the WSP is also a mobile money provider and has developed an offer using mobile money for water connection buying;
- **On the demand side, companies mobilize funds and selectively submit applications to different institutions (SUNREF, banks).**

In addition to large financial institutions, VSLAs continue to be a source of loans to small WASH operators, with 51 loans taken out from VSLAs in FY22 at loan values ranging from 500 to 7,968,000 MGA.

#### **Activities planned for the next quarter**

- Post on the RANO WASH website the tools or information needed to facilitate the provision of funds to support the private sector,

### **IR 2.2 Improved Design, Construction, and Management of WASH Infrastructure**

#### **Output 2.2.1—Improved Design and Construction of Sustainable WASH Infrastructure**

##### **TECHNICAL FEASIBILITY STUDIES (APSS) AND DETAILED DESIGNS OF CONSTRUCTION PROJECTS (APDs)**

During the whole project, we completed 113 APS and 83 APD. Thus, we can say that all the necessary study documents have already been completed. There will be no more APS and APD planned, while the revision and standardization of APD documents will continue this quarter to be archived in the SE&AM. The list of APS and APD reports is available in Annex 20.

As a result, the status of the use of the APD results produced by the project is as follows:

- 49 reports used for water systems constructed with technical and/or financial support from RANO WASH ;
- 15 reports for water systems in preparation for construction or under construction;
- 19 APD reports available for the call for investment (Trade show, B to B meetings, ...).

All the APS and APD documents developed by RANO WASH have been or will be shared with the communes, the DREAHs, and at the MEAH level after their standardization, both to serve as examples of technical studies and to inform construction in communes where APD and APS did not result in construction during the RANO WASH project life cycle.

The table below presents the APS and APD studies carried out during the life of the project for the seven intervention regions:

Table 5. APS and APD studies carried out during the life of the project

Region	APS	APD
<b>Atsinanana</b>	27	21
<b>Alaotra Mangoro</b>	24	13
<b>Amoron'i Mania</b>	15	8
<b>Haute Matsiatra</b>	11	10
<b>Vakinankaratra</b>	3	6
<b>Fitovinany</b>	28	18
<b>Vatovavy</b>	5	7
<b>TOTAL</b>	113	83

See annex 28. List of WSPs, APS and APD Q4.22

## ESF, WQAP, AND CRM MONITORING AND IMPLEMENTATION

As part of the ESF validation process, the project has established certain frameworks, including feedback on implementing artificial lakes via hybrid (earth and ferrocement) dams, land expropriation procedures, and compliance with construction site health and safety policies. All ongoing and completed projects have collected evidence of compliance with these specific activities.

To this end, environmental compliance is one of the most important aspects of project implementation. It ensures that the project interventions achieve the positive, sustainable changes in human health, nutrition, and the environment that were originally intended while minimizing negative environmental impacts. Adherence to environmental compliance measures also ensures the quality and sustainability of the services promoted by the project and the security of the investment.

The USAID has approved 50 ESFs since FY18. Annex 36 of this report provides more details regarding the list of sites.

Regarding the environmental compliance prescribed in the ESF document, the training and coaching of officials at the Communes and other key actors in implementing environmental measures related to the prevention of water resources took place before any start of work.

BushProof and Sandandrano continue to monitor the implementation of the environmental measures required by the ESF for each system during the construction phase. Corresponding documentation is being developed as construction progress and will be finalized with the submission of compliance plans by the contractors.

The WSP and the project have emphasized prior compliance and environmental protection around the various protected areas of the constructed systems to preserve quality and avoid fluctuation or variation in water quality during operation. This method is effective in avoiding any possible risk of contamination during operation.

For the time being, given the availability of tests conducted by the RISE Project, this opportunity has been seized by the WSPs for further evidence of the impacts of the protective measures being carried out. However, in the period not covered by RISE, the WSPs take on responsibility corresponding to their delegation contract. Their monitoring strategy is based on three main points: the change in the surrounding environment that is likely to degrade the spring's water quality, then the spring's original quality, and finally, the sensitive parameters requiring periodic monitoring. The water quality monitoring table in Annex 47 shows us the most detailed results per site.

## **INTEGRATED WATER RESOURCES MANAGEMENT - INTRODUCTION TO WATERSHED CONSERVATION**

The ultimate goal of IWRM is to manage water resources sustainably and equitably while ensuring watershed protection and restoration.

Examples of "measures" to improve water resources management include:

- Construction of green infrastructure, buffer zones, or reforestation;
- Implementation of compensation for water-related ecosystem services;
- Implementation and enforcement of water resource management plans.

To this end, in FY22, RANO WASH partnered with environmental actors such as the DREDD, the PLAE project, and the *Direction Régionale de l'Aménagement du Territoire* (Regional Directorate of Land Management) to implement the communal IWRM plan.

The different local actors (Executive, Councilors, STEAH, CSO, ASUREP, SLC, Chef Fokontany, Communities...) participate in reforestation activities to protect existing water resources and infrastructures.

In the other regions, reforestation activities have required the mobilization of several entities such as VOAMAMI groups, the Youth Association, the Women's Association, villagers, and public school students.

First, in Amoron'i Mania, as part of the collaboration between DREDD and DREAH with the support of the RANO WASH project on Integrated Water Resources Management (IWRM), a training session on the initiation of water management at the watershed level was carried out by the DREDD AMM.

For Vatovavy and Fitovinany, aiming at improving water resources management, the members of ASUREP of the Ambatofotsy water system in Fitovinany carried out a reforestation activity in collaboration with the NGO Ny Tanintsika intervening in the area through the project "Watershed."

In Haute Matsiatra, 05 cores communes were supported in the preparation of reforestation activities at the level of watersheds, namely: Androy, Ambalamahasoia, Andrainjato-Est, Andranovorivato, and Andrainjato. The major objective of these activities is to protect the watersheds from meeting environmental compliance and contribute to achieving the Malagasy government's program on "Madagasikara Maitso" (Green Madagascar).

For the Atsinanana region, two (02) workshops on IWRM were organized by the project team, with the support of DREAH, to build the capacity of representatives (Mayor and STEAH) of the twenty-three (23) Rural Communes with water supply systems.

In the Vakinankaratra region, to improve the management of water resources, the CSO-WASH, and the field agents, together with the RANO WASH team and the Commune team accompanied by the representative of the company that manages the Antsoatany water system, carried out a reforestation activity in the Analakely watershed in March 2022.

Finally, in Alaotra Mangoro, the climatic events have triggered an awareness of the importance of reforestation in the watershed area to buffer surface water flow and reduce silting. Thus, the WSP of Anosibe Ifody has taken the initiative to plant young fruit trees to protect the watershed. In Morarano Chrome, the Commune and *Logistique Pétrolière* planted 3,000 acacia trees in the watershed.

In addition, activities to improve watershed and water resource management have been implemented in the seven RANO WASH regions to protect watersheds or water resources properly.

However, reforestation planning was disrupted by cyclones during the second quarter. It was found that villagers' priorities were to rehabilitate their houses and replant rice.

See Annex 50. Environmental Screening Forms Q4. 22

Annex 51. Environmental Mitigation and Monitoring Report (EMMR) Q4.22

### **Update on Construction Works and Access to Water Services**

In Q4.22, seven construction sites were started for fifteen water systems under construction. Four systems will be accepted in Q4.22, of which three have been fully accepted, and one system is technically and provisionally accepted.

The development of drinking water systems follows a rather complex process involving many internal and external actors. Understanding this process is a real challenge, especially in understanding the involvement of private sector actors in a partnership perspective.

In FY22, several strategies were developed to achieve the drinking water access targets, aside from the restricted bidding (AOR) or PPP approach. The "PPP+" approach was also implemented, focusing on the economy of scale in terms of the locality where each private sector already working in WASH services was prioritized. Also, the "market approach" was developed, which led to unsolicited applications from corporate investors interested in developing their activities in the water sector to work in the localities where the project made its interventions. These approaches were carried out in compliance with the legal frameworks in force and involving the DREAH from the beginning of the process. The implementation of these infrastructures will be financed partly by the RANO WASH project and another source of private funding that the WSPs or the Commune will find.

Annex 29. Water System Construction Q4.22 and Annex 30. Water Supply Systems PPP Contracts Q4.22 provide more details.

The map of all RANO WASH water supply systems is available at the link below:

<https://crsorg.maps.arcgis.com/apps/webappviewer/index.html?id=5ef5eca5059a4be3bbd2e415de1b8bd0>

In summary, the following table shows the status of all project sites with drinking water infrastructure and the progress of work as of September 30, 2022:

Table 6. Status of water systems per region Q4.FY22

	Région	District	Commune	Site	Enterprise	Construction Status	Operational Status
1	ALAO TRA MANGORO	Moramanga	Anosibe Ifody	Ambodifody	Rano an'ala B	100%	Site in operation
2	ALAO TRA MANGORO	Moramanga	Beforona	Beforona	ACOGEMA	100%	Site in operation
3	ALAO TRA MANGORO	Moramanga	Sabotsy Anjiro	Sabotsy Anjiro	RPIJ	100%	Site in operation
4	ALAO TRA MANGORO	Amparafaravola	Amparafaravola	Ambongabe	EGC Tamby	100%	Site in operation / Waiting for Final Acceptance
5	ALAO TRA MANGORO	Amparafaravola	Amparafaravola	Betatamo	EGC Tamby	100%	Site in operation / Waiting for Final Acceptance
6	ALAO TRA MANGORO	Amparafaravola	Morarano Chrome	Morarano Chrome	LOVA VELU	100%	Site in operation / Waiting for Final Acceptance
7	ALAO TRA MANGORO	Moramanga	Morarano Gara	Morarano Gara	Rano an'ala B	100%	Site in operation / Waiting for Provisional and Final Acceptance
8	ALAO TRA MANGORO	Moramanga	Anosibe Ifody	Tsarafasina	Rano an'ala B	85%	construction work in progress
9	ALAO TRA MANGORO	Moramanga	Beforona	Ambinanisoavolo	ACOGEMA	90%	construction work in progress
10	ALAO TRA MANGORO	Moramanga	Beforona	Marolafa	ACOGEMA	90%	Work in progress
11	ALAO TRA MANGORO	Moramanga	Beforona	Marozevo/Soakambana	ACOGEMA	90%	Work in progress
12	AMORON'I MANIA	Ambositra	Ivato	Ivato Centre	AΠR	100%	Site in operation
13	AMORON'I MANIA	Manandriana	Ambatomarina	Ambatomarina	ACOGEMA	100%	Site in operation
14	AMORON'I MANIA	Ambositra	Ilaka Centre	Ilaka Centre	AΠR	100%	Site in operation / Waiting for Final Acceptance
15	ATSINANANA	Brickaville	Andovoranto	Ambila Lemaitso	AΠR	100%	Site in operation
16	ATSINANANA	Brickaville	Mahatsara	Mahatsara	2 ADH	100%	Site in operation
17	ATSINANANA	Brickaville	Ranomafana Est	Ranomafana Est	LOVA VELU	100%	Site in operation
18	ATSINANANA	Toamasina II	Ambodiriana	Ambodiriana	CREAT BTP	100%	Site in operation
19	ATSINANANA	Toamasina II	Ambodiriana	Analamangahazo	CREAT BTP	100%	Site in operation
20	ATSINANANA	Toamasina II	Ambodiriana	Fontsimavo	CREAT BTP	100%	Site in operation
21	ATSINANANA	Toamasina II	Amboditandrroho	Amboakarivo	EATC	100%	Site in operation

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	Région	District	Commune	Site	Enterprise	Construction Status	Operational Status
22	ATSINANANA	Toamasina II	Amboditandroro	Amboditandroro	EATC	100%	Site in operation
23	ATSINANANA	Toamasina II	Amboditandroro	Mahatsara	EATC	100%	Site in operation
24	ATSINANANA	Toamasina II	Ampasimadinika	Ampasimadinika	2 ADH	100%	Site in operation
25	ATSINANANA	Toamasina II	Ampasimbe Onibe	Ampasimbe Onibe	CREAT BTP	100%	Site in operation
26	ATSINANANA	Toamasina II	Fanandrana	Fanandrana	NMS	100%	Site in operation
27	ATSINANANA	Toamasina II	Mahavelona Foulpointe	Mahavelona-Foulpointe	Sandandrano	100%	Site in operation
28	ATSINANANA	Toamasina II	Sahambala	Ambalakondro	CREAT BTP	100%	Site in operation
29	ATSINANANA	Toamasina II	Sahambala	Ambodirafia	CREAT BTP	100%	Site in operation
30	ATSINANANA	Toamasina II	Sahambala	Maroangivy	CREAT BTP	100%	Site in operation
31	ATSINANANA	Toamasina II	Sahambala	Sahambala	CREAT BTP	100%	Site in operation
32	ATSINANANA	Toamasina II	Sahambala	Sahavongo	CREAT BTP	100%	Site in operation
33	ATSINANANA	Vatomandry	Ilaka Est	Ilaka-Est	LOVA VELU	100%	Site in operation
34	ATSINANANA	Vatomandry	Niarovana Caroline	Niarovana Caroline	2 ADH	100%	Site in operation
35	ATSINANANA	Brickaville	Fetraomby	Fetraomby	SEDERA	70%	construction work in progress
36	FITOVINANY	Ikongo	Ambatofotsy	Ambalatenina	Mickael	100%	Site in operation
37	FITOVINANY	Ikongo	Ambatofotsy	Ambatofotsy	Mickael	100%	Site in operation
38	FITOVINANY	Ikongo	Ambatofotsy	Ambodiarasakorihy	Mickael	100%	Site in operation
39	FITOVINANY	Ikongo	Manampatrana	Manampatrana	Mickael	100%	Site in operation
40	FITOVINANY	Vohipeno	Ambohitrova	Ambohitrova	Mickael	100%	Site in operation
41	FITOVINANY	Vohipeno	Andemaka	Andemaka	BushProof	100%	Site in operation
42	FITOVINANY	Vohipeno	Lokomby	Lokomby	Mickael	100%	Site in operation
43	FITOVINANY	Manakara Atsimo	Fenomby	Fenomby	Fitahiana	100%	Site in operation / Waiting for Final acceptance
44	FITOVINANY	Vohipeno	Vohitrindry	Vohitrindry	EC ABRAHAM	100%	Site in operation / Awaiting Final acceptance

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	Région	District	Commune	Site	Enterprise	Construction Status	Operational Status
45	FITOVINANY	Manakara Atsimo	Ampasimanjeva	Ampasimanjeva	EC ABRAHAM	8%	construction work in progress
46	FITOVINANY	Manakara Atsimo	Vohimasina Nord	Vohimasina Nord	Fitahiana	5%	construction work in progress
47	FITOVINANY	Vohipeno	Mahazoarivo	Mahazoarivo	Mickael	58%	construction work in progress
48	HAUTE MATSIATRA	Ambalavao	Andrainjato	Andrainjato	Mickael	100%	Site in operation
49	HAUTE MATSIATRA	Lalangina	Andrainjato Est	Andrainjato Est	SECOA	100%	Site in operation
50	HAUTE MATSIATRA	Lalangina	Androy	Androy	Mickael	100%	Site in operation
51	HAUTE MATSIATRA	Lalangina	Ambalamahasoa	Ambalamahasoa	Mickael	100%	Site in operation / Waiting for final acceptance
52	HAUTE MATSIATRA	Ambalavao	Namoly	Namoly	Miarintsoa	10%	construction work in progress
53	HAUTE MATSIATRA	Ambalavao	Sendrisoa	Sendrisoa	Miarintsoa	10%	construction work in progress
54	HAUTE MATSIATRA	Vohibato	Andranomiditra	Andranomiditra	Mickael	10%	construction work in progress
55	HAUTE MATSIATRA	Vohibato	Andranovorivato	Andranovorivato	LAZA	95%	construction work in progress
56	HAUTE MATSIATRA	Vohibato	Ihazoara	Ihazoara	Mickael	10%	construction work in progress
57	VAKINANKARATRA	Antsirabe II	Ambohitsimanova	Ambohitsimanova	ACOGEMA	100%	Site in operation
58	VAKINANKARATRA	Antsirabe II	Antsoatany	Antsoatany	2ADH	100%	Site in operation
59	VAKINANKARATRA	Antsirabe II	Soanindrariny	Soanindrariny	EC ABRAHAM	100%	Site in operation
60	VAKINANKARATRA	Betafo	Ambohimanambola	Ambohimanambola	ACOGEMA	1%	construction work in progress
61	VATOVAVY	Ifanadiana	Antaretra	Antaretra	Mickael	100%	Site in operation
62	VATOVAVY	Ifanadiana	Kelilalina	Kianjanomby	Mickael	100%	Site in operation
63	VATOVAVY	Mananjary	Andonabe	Andonabe	Ecowin	100%	Site in operation / Awaiting Final acceptance
64	VATOVAVY	Mananjary	Namorona	Namorona	Fitahiana	73%	construction work in progress

## ACCESS TO WATER SERVICES

Two main parameters affect the provision of drinking water to project intervention sites: the potential number of beneficiaries in the Commune and the coverage rate within each system. Overall project achievements remain below target for FY22. The updated service plan is attached and details the explanations given in this report section. An analysis of the two previously mentioned components helps to understand the project's choice of intervention to fill the gap, i.e., using kiosks via an inter-private partnership.

An analysis of the service plan reveals the following elements:

90 communes have been the subject of RANO WASH interventions in terms of access to drinking water services

The potential number of water beneficiaries of the systems built or supported in these 90 communes greatly exceeds the number of target beneficiaries (potential of 394,000 water users)

Of these 90 sites, 73 sites have had their drinking water coverage improved to a significantly high level (95% coverage on average), providing 180,991 beneficiaries to date out of a total of 211,179 beneficiaries at the end of FY22, i.e., 86% of the achievements to date.

Among these 90 sites, 17 still have low coverage (19% coverage on average), representing a potential of 121,652 beneficiaries available (for the 96,827 beneficiaries needed). If we manage to increase the internal coverage rate of these systems, there is still enough potential within the systems already built to fill the beneficiary gap

The project plans to scale services most efficiently by increasing coverage within the 17 systems addressed for FY23. By focusing on these 17 systems with the most potential to increase coverage, RANO WASH expects to reach its LOP targets by the end of FY23.

Socioeconomic factors remain a major deterrent to businesses' sale of private connections. Actions in the next quarter aim to address this specific situation with resources less dependent on the project teams. The inter-private complementarity, as described in section 2.1 with the water kiosk pilot update, where we describe an integrated coverage model, is the main strategy in coverage, not only for the remaining site of the project but mainly for general use as a new business model in water services. The graph below shows us that we are not far from the target set for each site already installed by the project and the potential latent beneficiaries that will allow us to reach our missing target for FY23.

**# of people gaining access to basic drinking water services as a result of USG assistance**



**63%**

**Revised target : 89 122**

**Achieved to date : 55 736**



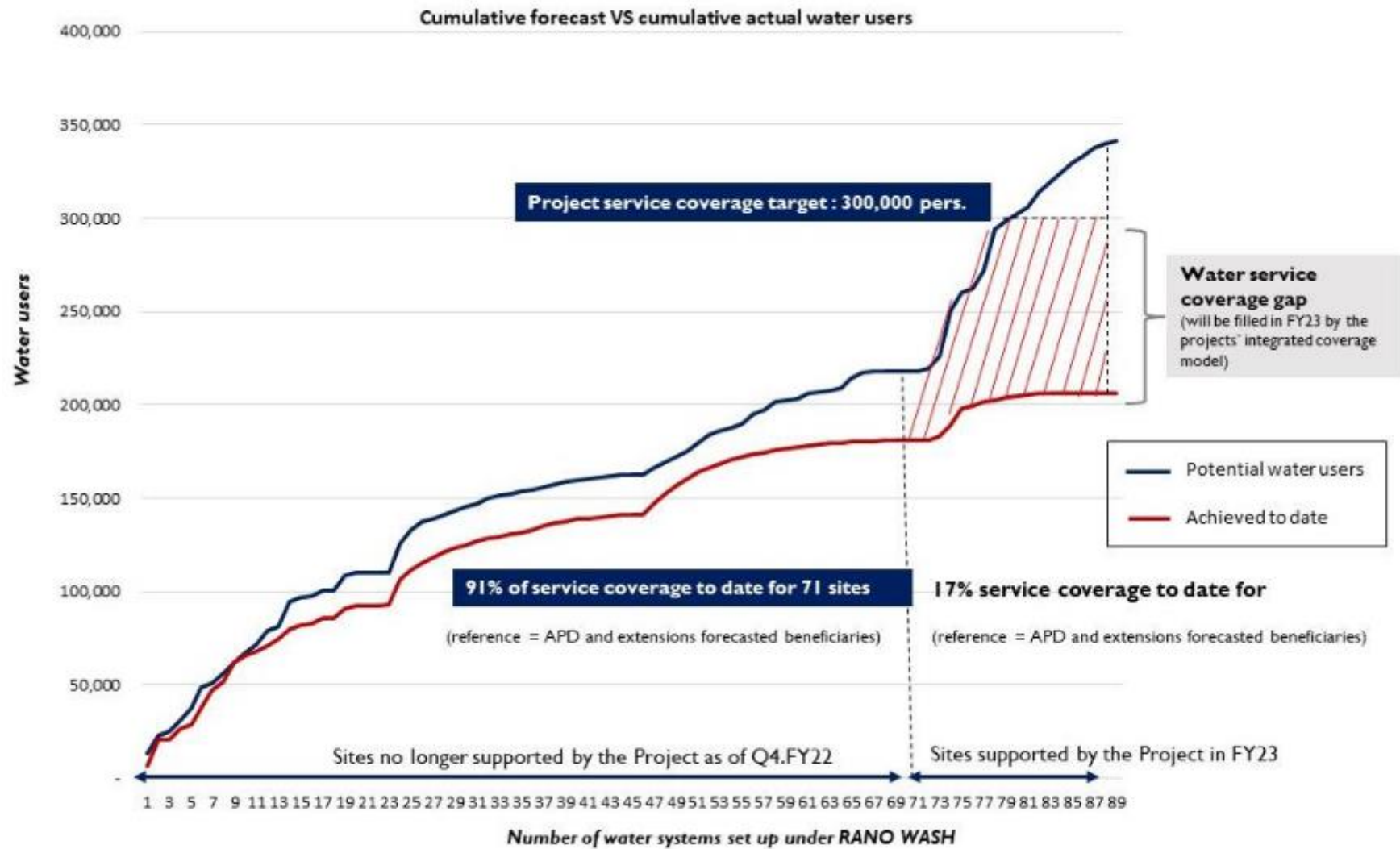


Figure 9. Evolution of water service coverage plans Vs. actuals

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See Annex 7. RANO WASH Project Performance Review Q4.22 for the overall FY22 and LoP summary of people gaining access to basic water services.

Regions	Basic drinking water services (new users)															Comments and next steps
	Q1			Q2			Q3			Q4			FY22			
	target	actual	%	target	actual	%	target	actual	%	target	actual	%	target	actual	%	
<b>Alaotra Mangoro</b>	8466	1873	22%	204	619	303%	4 952	3300	67%	8 720	1883	22%	22342	7 675	34%	Kiosk set up needs to be reviewed following lessons learned after the first installation. Relocation is necessary; despite the functionality of the majority of the kiosks, the counting is not yet started before this relocation.
<b>Atsinanan a</b>	10000	20637	206%	0	5	0%	475	123	26%	2 213	4187	189%	12687	24 952	197%	Several small water systems are realized in Atsinanana with funds mobilized by the consortium members and the contribution of the WSPs / Communes, leading to this high result.
<b>Amoron'i Mania</b>	600	865	144%	886	0	0%	1365	3512	257%	9 315	5138	55%	12166	9 515	78%	Ten automatic kiosks are planned to be installed in 3 sites to increase the basic service as well as the provision of materials; the implementation is underway but not yet accounted for.
<b>Haute Matsiatra</b>	1560	155	10%	644	105	16%	5448	626	11%	5 327	902	17%	12979	1 788	14%	The collection of social connections is problematic for companies, and individual connections are favored, hence the structure of coverage: basic low, safely managed high
<b>Vakinankaratra</b>	0	0	0%	1400	4340	310%	2450	0	0%	15 805	275	2%	19655	4 615	23%	New systems are being built, and beneficiaries from these systems will be counted for the next quarters
<b>Fitovinany</b>	3788	1152	30%	167	523	313%	3224	1004	31%	2 114	3295	156%	9293	5 974	64%	The objectives of the previous quarters have been switched to Q4, with a strategy of an endowment of materials and effective use of social or collective connections by the

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Regions	Basic drinking water services (new users)															Comments and next steps	
	Q1			Q2			Q3			Q4			FY22				
	target	actual	%	target	actual	%	target	actual	%	target	actual	%	target	actual	%		
																	WSPs. The project has been able to achieve notable results in terms of percentage (endowments) and coverage (shared water points)
<b>Vatovavy</b>	3788	75	2%	167	184	110%	3224	64	2%	2 114	894	42%	9293	1 217	13%	The marketing campaigns conducted with the WSPs showed a preference for private connections, resulting in a higher increase in safely managed results compared to basic water services	
<b>Total</b>	<b>28202</b>	<b>24757</b>	<b>88%</b>	<b>3468</b>	<b>5776</b>	<b>167%</b>	<b>21138</b>	<b>8629</b>	<b>41%</b>	<b>45607</b>	<b>16574</b>	<b>36%</b>	<b>98415</b>	<b>55736</b>	<b>57%</b>		

See Annex 7. RANO WASH Project Performance Review Q4.22 for the overall FY22 and LoP summary of people gaining access to safely managed water services.

Regions	Safely managed drinking water services (new users)															Comments and next steps
	Q1			Q2			Q3			Q4			FY22			
	target	actual	%	target	actual	%	target	actual	%	target	actual	%	target	actual	%	
<b>Alaotra Mangoro</b>	2265	295	13%	87	192	221%	2122	635	30%	5072	745	15%	9546	1 867	20%	The sites currently in operation are relatively saturated; the new sites recently received (Morarano Chrome, Morarano Gara) have a lot of potential but are in the early stages of operation
<b>Atsinanana</b>	1000	436	44%	0	42	0%	203	193	95%	3647	312	9%	4850	983	20%	The coverage of sites with social connections provides important access to water for households that take longer to acquire private connections
<b>Amoron'i Mania</b>	0	0	0%	380	0	0%	585	729	125%	4249	732	17%	5214	1 461	28%	Several connections in the process of being installed have not yet been registered in Ilaka

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Regions	Safely managed drinking water services (new users)															Comments and next steps	
	Q1			Q2			Q3			Q4			FY22				
	target	actual	%	target	actual	%	target	actual	%	target	actual	%	target	actual	%		
																	Centre, despite the sales that have been made, resulting in a delay in the number of beneficiaries, despite an increase in sales and requests.
<b>Haute Matsiatra</b>	636	235	37%	276	109	39%	2335	1174	50%	2315	2105	91%	5562	3 623	65%	The collection of social connections is problematic for companies, and individual connections are favored; hence the coverage structure: low for basic, high for safely managed	
<b>Vakinankaratra</b>	0	0	0%	600	114	19%	1050	256	24%	5755	925	16%	7405	1 295	17%	The construction of new systems is underway. The beneficiaries from these systems will be counted for the next quarters. The countable results come mainly from the promotion campaigns of the WSPs.	
<b>Fitovinany</b>	1451	131	9%	71	82	115%	1382	365	26%	788	856	109%	3692	1 434	39%	The objectives of the previous quarters have been switched to Q4. The project has launched joint marketing campaigns with the WSP (offer developed by the WSP and communication and prospecting energized by the project teams), resulting in many requests, hence the coverage in this region for Q4.	
<b>Vatovavy</b>	1451	0	0%	71	5	7%	1382	184	13%	788	656	83%	3692	845	23%	Marketing campaigns with WSPs have shown a preference for private connections, resulting in a higher increase in safely managed results compared to basic water services.	

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Regions	Safely managed drinking water services (new users)															Comments and next steps
	Q1			Q2			Q3			Q4			FY22			
	target	actual	%	target	actual	%	target	actual	%	target	actual	%	target	actual	%	
<b>Total</b>	<b>6803</b>	<b>1097</b>	<b>16%</b>	<b>1485</b>	<b>544</b>	<b>37%</b>	<b>9059</b>	<b>3536</b>	<b>39%</b>	<b>22615</b>	<b>6331</b>	<b>28%</b>	<b>39962</b>	<b>11508</b>	<b>29%</b>	

### ACCESS TO SANITATION SERVICES

The sanitation achievements are beyond our expectations. The project organized several events to document the lessons learned and disseminate them to sector actors at the regional and national levels and even internationally. These lessons learned are developed in depth in section 3.2.2.

### ACCESS TO BASIC SANITATION SERVICES

See Annex 7. RANO WASH Project Performance Review Q4.22 for the overall FY22 and LoP summary of people gaining access to basic sanitation services.

Regions	basic sanitation services															Comments and next steps
	Q1			Q2			Q3			Q4			FY22			
	target	actual	%	target	actual	%	target	actual	%	target	actual	%	target	actual	%	
<b>Alaotra Mangoro</b>	7 950	1754	22%	7 960	16746	210%	8 960	4601	51%	7 961	13144	165%	32831	36245	110%	Households largely prefer to use non-shared latrines daily, justifying the preponderance of this type of latrine.
<b>Amoron'i Mania</b>	1200	2096	175%	2112	2089	99%	2016	2200	109%	1300	1014	78%	6628	7399	112%	RANO WASH conducted behavior change activities to achieve ODF status in the Commune of Ambatofitorahana.
<b>Atsinanana</b>	3500	3533	101%	10000	2924	29%	8000	4658	58%	5276	5121	97%	26776	16236	61%	Local masons and self-construction clearly oriented toward the construction of non-shared latrines
<b>Haute Matsiatra</b>	1416	518	37%	2559	2749	107%	1989	1381	69%	1989	260	13%	7953	4908	62%	RANO WASH's objectives in terms of shared and non-shared latrines were achieved through the acquisition of ODF status by the Commune

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Regions	basic sanitation services															Comments and next steps
	Q1			Q2			Q3			Q4			FY22			
	target	actual	%	target	actual	%	target	actual	%	target	actual	%	target	actual	%	
																of Manamisoa in Q4 FY22. Reporting becomes less effective with the limited number of teams, with a relatively high overall target; the priority of the remaining available resources is to focus on sensitive indicators such as access to safe water...
<b>Vakinakaratra</b>	1962	537	27%	4037	19448	482%	4037	2097	52%	2521	1234	49%	<b>12557</b>	<b>23316</b>	<b>186%</b>	The overall goal is met, but a reduction in activities at the end of FY22 led to a slowdown in new beneficiaries
<b>Vatovavy</b>	2355	334	14%	3660	1503	41%	3640	603	17%	3600	2322	65%	<b>13255</b>	<b>4762</b>	<b>36%</b>	
<b>Fitovinany</b>	2355	1259	53%	3660	727	20%	3640	1737	48%	3600	26366	732%	<b>13255</b>	<b>30089</b>	<b>227%</b>	
<b>Total</b>	<b>20738</b>	<b>10031</b>	<b>48%</b>	<b>33988</b>	<b>46186</b>	<b>136%</b>	<b>32282</b>	<b>17277</b>	<b>54%</b>	<b>26247</b>	<b>49461</b>	<b>188%</b>	<b>113255</b>	<b>122955</b>	<b>109%</b>	

### ACCESS TO LIMITED SANITATION SERVICES

See Annex 7. RANO WASH Project Performance Review Q4.22 for the overall FY22 and LoP summary of people gaining access to limited sanitation services.

Regions	limited sanitation services															Comments and next steps
	Q1			Q2			Q3			Q4			FY22			
	target	actual	%	target	actual	%	target	actual	%	target	actual	%	target	actual	%	
<b>Alaotra Mangoro</b>	2 025	1866	92%	2 025	10199	504%	2 025	2921	144%	2 025	1272	63%	8100	16258	200%	Households largely prefer to use non-shared latrines daily, justifying the preponderance of this type of latrine. On the other hand, the population uses shared latrines more to save space due to a lack of space in some intervention areas, as in the case of the Commune of Beforona.
<b>Amoron'i Mania</b>	600	524	87%	900	600	67%	1638	1212	74%	0	136		3138	2472	79%	Households prefer non-shared latrines. Awareness-raising activities to achieve ODF status in the Commune of Ambatofitorahana.
<b>Atsinanana</b>	600	490	82%	3000	671	22%	2500	308	12%	2094	71	3%	8194	1540	19%	Local masons and self-construction clearly oriented toward the construction of non-shared latrines
<b>Haute Matsiatra</b>	200	249	125%	813	1061	131%	813	1006	124%	609	68	11%	2435	2384	98%	RANO WASH's objectives in terms of shared and non-shared latrines were achieved through the acquisition of ODF status by the Commune of Manamisoa in Q4 FY22. Reporting becomes less efficient with the limited number of teams, with a

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Regions	limited sanitation services															Comments and next steps
	Q1			Q2			Q3			Q4			FY22			
	target	actual	%	target	actual	%	target	actual	%	target	actual	%	target	actual	%	
																relatively high overall target. The priority of the remaining available resources is to focus on sensitive indicators such as access to safe water...
<b>Vakinakaratra</b>	43	61	142%	807	5986	742%	807	113	14%	806	61	8%	2463	6221	253%	The overall goal is met, but a reduction in activities at the end of FY22 led to a slowdown in new beneficiaries
<b>Vatovavy</b>	1170	313	27%	1500	961	64%	1500	152	10%	1500	4618	308%	5670	6044	107%	Behavioral change activities conducted by RANO WASH, technical support to local masons, the strong coordination with regional WASH actors, and especially the existence of the Vatovavy Fitovinany Madio competition are the main reasons behind this result.
<b>Fitovinany</b>	1170	1516	130%	1500	53	4%	1500	105	7%	1500	50056	3337%	5670	51730	912%	
<b>total</b>	5808	5019	86%	10545	19531	185%	10783	5817	54%	8534	56282	660%	35670	86649	243%	

The ripple effect on the population of ODF communities continues, and the good influence received from other communities that have achieved status encourages other communities to do the same. Overall, in FY22, the achievement of the objectives was affected by the reduction of teams at the end of the project.



## **UPDATE ON FECAL SLUDGE MANAGEMENT**

In FY22, the RANO WASH project initiated a pilot Fecal Sludge Management activity. The principle of implementing the activity is to diagnose the existing services and identify the weak points the project can improve for these services. This approach was chosen because the existing services are relatively numerous, but they all have operational difficulties. Rebuilding a service from scratch would bring fewer gains than starting from an existing service.

The activity's objective is to evaluate existing services to identify critical gaps and select one service to support addressing these critical gaps. The main objective is to support an existing FSM service on their operational pain points to get effective service. In Q1.22, the terms of reference were defined. And Sandandrano, that has expertise in the technical and institutional aspects of contracting and regulating public WASH services, has been chosen to conduct the study.

A diagnostic report highlighted three potential candidates for support: Eco-Dio in Fianarantsoa, Clean Impact in Toamasina, and Diotontolo in Foulpointe. The selection of the service to be supported is based on several criteria determining the viability of the service, including the market potential in the location of the treatment plant, the company's value capture system, the regularity of contracts, and environmental permits...

The activity is expected to continue for Q1.23. The next steps are to select and strengthen the service provider to improve its performance and capitalize on key factors to make a fecal sludge management service viable. Details of the recommendation for selecting ECO-DIO as the FSM pilot site for the project are proved in Annexes 56 and 57.

### **Activities planned for the next quarter**

- Monitoring the operation and condition of installed and newly constructed hybrid dams;
- Periodic monitoring of construction progress.
- Implementation of the selected FSM pilot site.
- Monitoring of the evolution of access to sanitation and drinking water coverage at the level of the WSPs,
- Periodic control of the respect of environmental protection measures and water quality with the WSP.

## **IR2.3 Strengthened Technical and Business Skills and Competencies**

### **Output 2.3.1 Strengthened capacity-building for the private sector in business systems and technical operations**

#### **Capacity building of water services providers and small entrepreneurs for effective water coverage**

After waves of training and capacity building for businesses in previous fiscal years, for FY22, RANO WASH focused primarily on business coaching and beneficiary coverage of systems. As collecting and analyzing data from businesses is an essential step in understanding how to support businesses, the project has carried out several activities to collect data to analyze the economic parameters of businesses. In Q1, enterprises' analysis of the value capture system determined what financial efforts enterprises need to make to obtain a particular connection. These efforts involve either a significant mobilization of cash or the need for external support

from financial partners to increase specific connections. An analysis of the marketing offers deployed and the campaign deployment periods by WSPs conducted in Q2 provided further insight into the companies' challenges. These data were confirmed by analyzing the dynamics of the companies during the different phases of the development of the systems: a newly built system is largely more dynamic than a system in cruising rhythm for several reasons, including the question of financing the campaigns.

An analysis of the profitability of the enterprises and the factors that determine their decisions carried out in Q4 made it possible to understand in greater detail the determinants of the decisions made by the WSPs and how the impact of the support given by the project affected their profitability.

The details of the cost-benefit analysis are presented in Annex 37. Water Systems Profitability and Business Models Analysis.

The following points were observed:

- RANO WASH-supported enterprises become more successful with each contract and capacity building, as shown in Table 7 below, demonstrating management performance as an enterprise gains experience over the years
- The timing of the capacity-building intervention is critical and should correspond to the firms' "windows of attention" to the system in question.
- WSP firms prefer construction contracts but remain strongly committed to systems management; the urgency of construction contracts distracts WSPs' attention from systems already built.

Table 7. Example of the evolution of a WSP on five sites over the years

SITE	START-UP YEAR	Turnover/Fix Cost ratio	T/FC score*
Site 5.1	FY20	0,52	1
Site 5.2	FY20	0,60	1
Site 5.3	FY21	1,20	2
Site 5.4	FY22	1,81	3
Site 5.5	FY22	2,16	4

\*T/FC score: 1 (low management performance) to 4 (good management performance).

RANO WASH's second priority for FY22 is coverage of existing systems and sustaining capacity to increase beneficiaries beyond project intervention. In their current situation, WSPs do not yet have the internal capacity to develop their market, especially because of the cost of individual connection promotion campaigns. Without these promotions, the cost of connecting to the network would be too high for most households. Outsourcing coverage via subcontracted water kiosk managers and using the funds collected to finance the campaigns is one of the challenges of FY22. - Structured a company (MANAMPY Corporation) to assist WSPs with their system coverage on a transitional basis.

Among the activities planned as part of the capacity building of enterprises is scaling services to additional water users. In this way, RANO WASH expects to reach or exceed its LOP targets, ensuring services for an additional 90,000 people through this model, and this is done in a way that the project teams are in retreat. Still, the activities are almost entirely conducted

through the inter-private partnership and are financially supported by RANO WASH. Annex 38 provides updates on lessons learned from implementing the kiosk-based model.

### Output 2.3.2 - Development of professional associations

This year, the project organized a meeting between a group of private operators in April 2022 in Antananarivo at the request of these companies and another meeting of AOPDEM members in September.

The objective of the first meeting was to structure this group of private operators working in the Alaotra Mangoro region. The operators regrouped to form a regional WSP association to pool their efforts and give a new impetus to business-to-business exchanges.

The company RANON'ALA-B shared during the meeting its experience in implementing WSP in its intervention communes, namely Mandialaza, Andaingo, and Anosibe Ifody. The different steps, from the expression of interest to the signing of the financing contract, the validation of the design of the services to be implemented, and the distribution of co-financing, were discussed while highlighting the unforeseen events that slowed the process.

At the national level, the second meeting was for AOPDEM. The president gave a strategic orientation to the member of the association concerning the association's status and the new future partnership with Uptime<sup>10</sup>, announcing the next visit of Uptime to its partners next November. There had been sharing: Uptime requirements, the visit's preparation, and the partnership's benefit.

On the other hand, this year is also marked by several workshops to formalize the cooperative of local masons and seamstresses of RANO WASH intervention regions. The objective of these activities is to formalize their statutes. Twelve (12) cooperatives (networks of local masons) and associations of WSPs out of six (06) planned, geographically dispersed, are created to develop and maintain mutually beneficial relationships.

#### # of national professional associations / local cooperatives developed with RANO WASH support

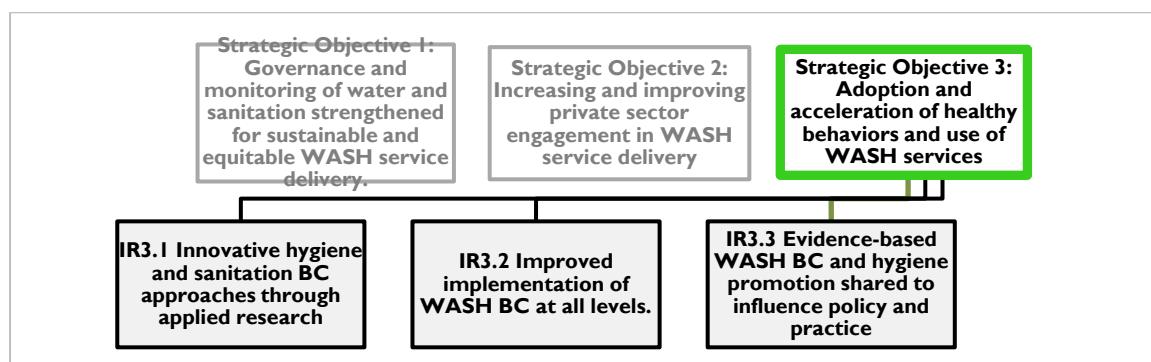


### Activities planned for the next quarter

- Hold a meeting to review the results of the WSP performance with the capital and guarantee operators and the banks;
- Encourage the group of private operators to continue holding exchange and sharing meetings;
- Support the WSPs in the implementation of their service plan and the extension of the systems;
- Support the cooperatives and associations of professionals to continue to maintain their relationships.

<sup>10</sup> Uptime is a global consortium working to deliver drinking water services to millions of rural people through long-term, performance-based funding to achieve Sustainable Development Goal 6.1 Uptime develops results-based contracts to sustain and scale resilient rural water services globally <https://www.uptimewater.org/>

### 2.1.3 Strategic Objective 3: Accelerating the Adoption of Health Behaviors and Use of WASH Services



#### Annual key achievements

- **1,954 communities out of 1,360 targeted (144%)** are verified ODF
- **55 Communes out of 34 targeted (162%)** are certified ODF
- The total number of **ODF Communes** for the project’s life is now **77 out of 68 targeted.**
- **122,955** people gained access to basic sanitation services out of 100,000 targeted (123%)
- **86,649** people gained access to limited sanitation services out of 30,000 targeted (289%)
- **98% of verified communities** remained ODF after follow-up
- **2,912 VSLA members out of 2,179 targeted (134%)** invested in WASH services and products

Table 8. Summary of Progress for Key SO3 Indicators Q4.22

Key Indicators	Q4			FY22			Life of Project		
	Target	Actual	%	Target	Actual	%	Target	Actual	%
# of new communities verified as ODF	103	405	<b>309%</b>	1,360	1,954	<b>144%</b>	5,429	5,543	<b>102%</b>
# VSLA members investing in WASH products and services	237	352	<b>149%</b>	2,179	2,912	<b>134%</b>	22,400	23,133	<b>103%</b>
# of people gaining access to a basic sanitation service	22,647	49,461	<b>218%</b>	100,000	122,955	<b>123%</b>	362,712	365,667	<b>101%</b>
# of people gaining access to a limited sanitation service	7,034	56,282	<b>800%</b>	30,000	86,649	<b>289%</b>	264,401	296,050	<b>112%</b>

### IR3.1 Improved Hygiene- and Sanitation-Behavior-Change Solutions through Applied Research

#### Output 3.1.1: Behavioral science innovations for WASH BC solutions through applied research

In terms of research, this fiscal year saw two main research activities:

- Research on the implementation of a market-based sanitation pilot model in collaboration with iDE;
- Research on approaches to promoting handwashing with soap in schools in collaboration with Happy Tap and Fondation Mérieux,

##### **Sanitation research with iDE**

This research and field-testing activity resulted in the development of flagship sanitation products for aspirational travelers through rapid prototyping techniques. It also tested triggers, messages, and marketing channels.

At the same time, iDE tested the idea of strengthening and expanding existing networks of sanitation entrepreneurs and ways to get hardware stores to partner more formally with local masons. Exploratory conversations with mobile money providers and financial institutions were also part of the study. Prototyping and testing of full-scale models took place in Lokomby, in the Manakara district, Fitovinany region, during Q4.

At the end of this activity, iDE provided a detailed report of the intervention, including the detailed characteristics of Kabone Mandamina, appropriate communication and marketing messages, and materials, as well as avenues to be explored to make Kabone Mandamina entrepreneurs professional. The executive summary is provided in Annex 6I. The full report is available on the project website<sup>11</sup>. Sharing sessions were also organized with MEAH and other stakeholders, especially during the industrial consultation workshop organized by UNICEF and MEAH on 17 and 18 May 2022.

The next step will be to continue the support given to the local masons of Lokomby with whom the prototyping and testing were done and to explore how the project can collaborate with other stakeholders to take over the further implementation of the development of this model.

##### **Partnership with Happy Tap and Fondation Mérieux**

RANO WASH, Fondation Mérieux<sup>12</sup>, and Happy Tap<sup>13,14</sup> are partnering together to implement a joint study on handwashing with soap to find evidence of better results from the combination of three approaches:

- The use of nudges for RANO WASH;

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<sup>11</sup> <https://care.mg/ranowash/human-centered-design-for-sanitation-business-development/>

<sup>12</sup> <https://www.fondation-merieux.org/en/>

<sup>13</sup> <https://www.happytap.net/>

<sup>14</sup> Each entity is responsible for the following (1) implementing its program in the designated schools. For instance, RANOWASH is responsible for setting up nudges in two schools: EPP Antanamalaza and EPP Antsoatany; (2) realizing the observation activities with the other organizations. To reduce bias, RANO WASH won't observe the practice of handwashing with soap by students in those two schools but rather will do so in the schools where Happy Tap and Fondation Mérieux did their activities (3), contributing to the analysis of the results; (4) sharing the results with stakeholders.

The Ministry of National Education will replicate and integrate the results into an overall strategy for strengthening school health, including the WASH Friendly Schools initiative and the MEN curriculum.

- The application of the "new normal" with the intensive use of handwashing stations with Happy Tap;
- The use of the WASH awareness program at the elementary school level with Fondation Mérieux,

To maximize the impact of the three approaches mentioned above, Happy Tap, RANO WASH, and Fondation Mérieux wish to combine their actions and propose a common approach to strengthen access to hygiene for children in schools.

The three entities are setting up a comparative evaluation to assess the extent to which the articulation of different means of action can maximize the impact of increasing the practice of Handwashing with soap (HWWS).

The indicator measured is the "Number of handwashing with soap and water of pupils observed during a half-day of school."

As a result of the research, the following outcomes are expected:

- Outcome 1: Implementing any single approach effectively increases student handwashing with soap.
- Outcome 2: Implementing a common approach that integrates all three approaches is even more effective in increasing handwashing with soap by students

Five schools were selected based on the following parameters:

- School 1: School to be equipped with nudges by RANO WASH
- School 2: School to be equipped with Handwashing facilities with the New Normal by Happy Tap
- School 3: School to benefit from WASH Awareness by Fondation Mérieux
- School 4: School to benefit from all three approaches
- School 5: Control school that did not benefit from any of the three approaches

After several readjustments of the observation conditions and the protocol to obtain the best possible result without bias, the initial observations were carried out in the five identified schools. These first results will be compared with the results of the second and third measurements to appreciate the differences.

The next measurements will be conducted during the next fiscal year, and the results will be shared by the second quarter of FY2023. This activity is done in collaboration with the Ministry of national education at the national and regional levels.

### **Output 3.1.2: Studies of integrated population, health, and environment (PHE) programming models stimulating cross-sectoral collaboration**

This fiscal year, the intersectoral collaboration approach was particularly used in Atsinanana and Vatovavy Fitovinany.

In Atsinanana, the project supported the regional PHE network led by the Madagascar Fauna and Flora Group (MFFG). The network, composed of several organizations with different complementary activities, implements integrated activities at three pilot sites: Antetazambaro, Sahambala, and Ambodiriana. RANO WASH provides activities related to access to WASH services. An exchange visit was organized among the network members to improve this intersectoral collaboration. The project also participated in the Girl's Camp and trained and facilitated girls in hygiene and sanitation promotion.

In Vatovavy, the project continued the collaboration with the Valbio Center. Environmental protection activities, as well as hygiene promotion, were organized in three schools in

Kianjanomby. Reforestation around the water system source was also continued and allowed the planting of 5,003 indigenous plants on 2.56 hectares. This plantation is intended to protect the watershed of the water system. The initiative also promoted environment and watershed protection among the school communities with spring and environmental protection training.

Conservation clubs composed of youth and elders of the village were set up in the communities. Their roles are to protect the environment, promote hygiene activities, and facilitate the economic development activities of the village. The vegetable garden initiative was also implemented in the schools, called "Grow your own food" or "*Amboleo ny Sakafonao*."

Despite the difficulties encountered in intersectoral collaboration, RANO WASH has supported partners to work together in a complementary manner. The project plans to continue supporting and promoting cross-sectoral collaboration initiatives for the next fiscal year by sharing lessons learned with the national PHE network.

### **Output 3.1.3: WASH–Nutrition linkages researched**

For this fiscal year, RANO WASH collaborated with nutrition offices and coordinated activities within communities in WASH and nutrition. In Vakinankaratra, local promoters combine their intervention with nutritional education with lead mothers, and the villages successfully achieved ODF status. In Atsinanana, the regional nutrition office is a very active member of the SRMO, making promoting integrated activities for WASH actors in the field easier.

As part of the project's withdrawal plan for the next fiscal year, the project will relay WASH-nutrition activities to SRMO and regional nutrition offices.

#### **Activities planned for the next quarter**

- Sharing sessions on MBS and behavior change approaches
- Collaboration with MEAH and UNICEF to relay MBS activities
- Sharing sessions with the PHE network and nutrition offices

### **IR3.2 Improved Implementation of WASH Behavior Change at All Levels: Communities, Government, and Private Sector**

#### **Output 3.2.1: WASH BC program coordination improved in RANO WASH regions**

Behavior Change activities and program coordination is mainly facilitated at the regional level within the SRMOs. The SRMOs, under the leadership of the regional directorate of water, sanitation, and hygiene, played a role in achieving ODF Communes by organizing contests between Communes and mobilizing all stakeholders.

In Fitovinany and Vatovavy, the Commune contest allowed the achievement of 12 ODF communes. In Fitovinany, health partners work together to improve coordination and share good practices around behavior change, and the project supports and participates in these exchanges. In Vakinankaratra, the project facilitated a sharing workshop on WASH behavior change strategy and governance with SRMO members, which resulted in more motivation and commitment to sustainable behavior change from the actors and regional authorities.

At the national level, the project participated in the sectoral review and provided insights on sanitation and hygiene activities. In addition, in Q4, the project initiated and facilitated the

collaboration and coordination between the MEAH, MoPH, and MoNE by hiring the consultant in charge of the study on the sustainability of WASH services in schools and health centers. The section on WASH-friendly institutions gives more detail on this.

### Output 3.2.2: Innovative CLTS and WASH BC implementation

#### CLTS AND SANITATION

During this quarter, 403 communities out of 131 targeted were verified ODF. This brings the ODF communities achieved for FY22 to 1,954 out of the 1,360 targeted. 55 out of 33 targeted Communes achieved ODF status.

The total number of ODF Communes for the project's life is now 77 out of 68 targeted.

# of communities verified as  
"open defecation free" (ODF)  
as a result of USG assistance



# of Communes certified as  
"open defecation free" (ODF)  
as a result of USG assistance



This good result has already been the subject of learning sessions within the team, resulting in the learning document we shared as an annex to the Q3 report. At the same time, the results of the ODF Communes were also the subject of an abstract submitted and accepted at the Health and Water Conference organized by the University of North Carolina and presented as a poster. The poster presents the role that the systems-strengthening approach has had on sanitation interventions at the communal level.

See Also Annexes 59, 60, and 63.

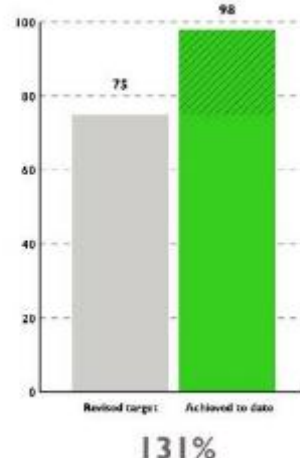


98% of the verified communities have maintained their ODF status for the maintenance of ODF status after verification. The implementation of sustainability plans at the local level led by local committees allows communities to maintain their status for the time being.

The project conducts two post-ODF follow-ups: the first is six months after the community is verified ODF, and the second is one year later. Verification is done using a verification form based on observing compliance with the ODF criteria defined in the national verification protocol.

This quarter, 49,461 out of 22,647 targeted people (218%) have access to basic sanitation services, while 56,282 out of the 7,034 targeted (800%) people have access to limited sanitation services. This result is consistent with the increased number of ODF Communes.

% communities verified ODF that remain ODF following verification

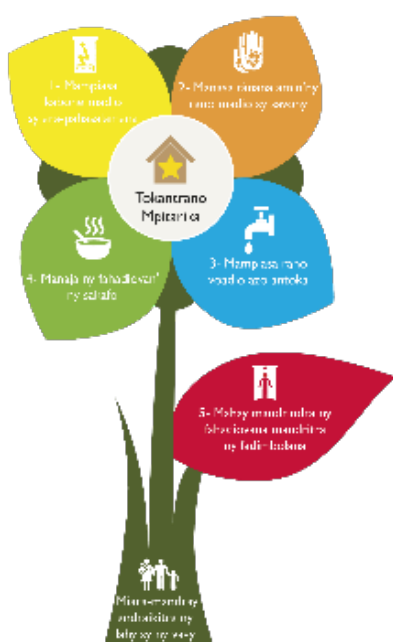


### GROW-UP STICKER CAMPAIGN

We have continued and closed the Grow-Up Sticker campaign for this fiscal year. Thus, the following table shows the latest results of this approach based on the figures in the project database. This table shows the total number of households accompanied during the campaign since its beginning in 2019.

Table 9. GUS Performance to date, the total number of households accompanied

Number of households reached by the campaign	Yellow petal - Use of toilet	Orange petal - Handwashing with soap	Blue petal - Use of safe water	Green petal - Food hygiene	Red petal - Menstrual hygiene
65,491	43,981	46,257	37,679	41,424	30,688
100%	66%	71%	58%	63%	47%



The results are quite mixed, and we are closing this activity by analyzing the parameters influencing these results. These parameters were collected from the different actors who participated in the implementation, including the project staff. This learning will be reported and documented in the first quarter of FY23.

In addition, as announced in the annual work plan, the project has focused on transferring the conduct of this activity to local authorities and structures by providing them with simple guidelines. The results of this transfer are reflected in the inclusion of the approach in the annual work plans of some Communes, with the related budget. Examples of these are compensation for travel expenses of local promoters or the purchase of notebooks and pens.

## VSLAs

### *Savings group investments in WASH services and products*

2,912 VSLA members invested in WASH services and products out of the 2,179 targeted. This brings the total number of VSLA members investing in WASH to 23,122 out of 22,400 targeted for the project's life.

For this quarter, a total amount of Ar 18,241,157 was invested in WASH services and products by VSLA members. 41% of this amount was spent on sanitation (toilet construction, rehabilitation of unimproved toilet, purchase of SanPlat slab...). 38% was spent on hygiene, half of which was spent on soaps. 21% was spent on water expenses and almost half on private connections.

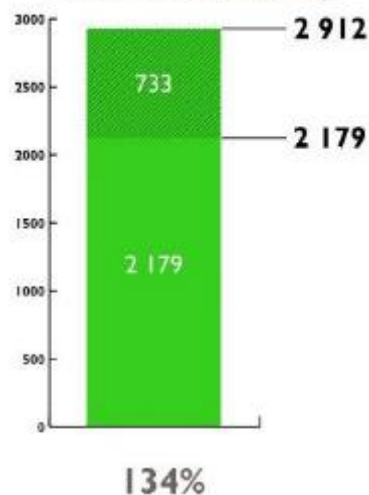
Two groups won the VSLA contest focused on water. A group from Alaotra Mangoro mobilized Ar 3,753,000 and reached 3,803 people to gain access to water services. The second group, in Haute Matsiatra, mobilized Ar 2,420,000 and reached 3,482 people to gain access to water services. The contest contributed to the achievement of water services objectives. This period was also marked by the evaluation of relay agents working with the project. This evaluation assessed each relay agent's performance as a replicator, trainer, and coach of VSLA groups.

Ninety-four relay agents out of 114 passed the assessment and can be certified. Those who did not pass will need further training and coaching. Thus, the project started to reach out to RPGEM and to discuss ways to support these relay agents, especially when the project ended. RPGEM and RANO WASH decided to hold a workshop on relay agents' professionalization in October to address this. (see also Annex 62. Charter for Collaboration and Coordination within Saving Groups Promoters)

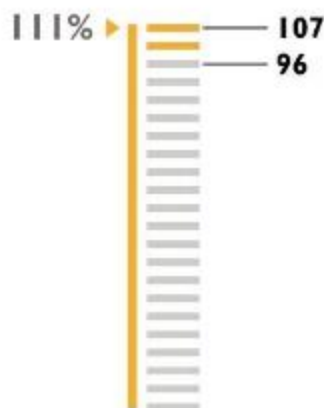
### **Support for healthcare facilities and schools**

Support to institutions also continued. One hundred seven institutions gained access to basic water services this quarter out of 96 targeted, while 260 toilets were constructed at the institutional level out of 193 targeted. Support for WASH committees also ensures that WASH services remain available at these institutions.

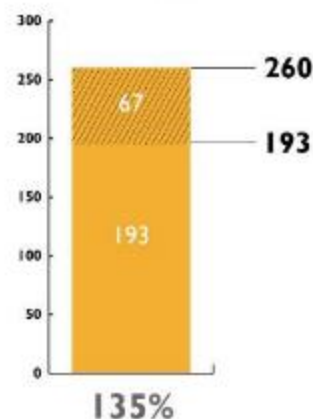
# of VSLA members who reported investing in WASH services or products (latrine, water connection, etc.)



# of institutional settings gaining access to basic drinking water services as a result of USG assistance



# of basic sanitation facilities provided in institutional settings as a result of USG assistance



The project collaborated with the three ministries (MEAH, MoPH, and MoNE) to recruit a consultant to develop models for the sustainability of WASH services at the institutional level to address this challenge. The consultant has started his activity and developed the assessment methodology. He presented the methodology to the three ministries team, RANO WASH, and other stakeholders working in the WASH in institutional settings. The next step for this activity will be a series of interviews at the national level and some field visits to see what is currently working or not at the level of institutions.

RANO WASH has requested the collaboration of other organizations to finance the field visits of the consultant in areas where RANO WASH does not intervene. So far, the project has been able to mobilize Fondation Mérieux, WSUP, USAID ACCESS, WaterAid, and UNICEF to organize these field visits. These field visits will be organized during the first quarter of FY23.

#### Activities planned for the next quarter.

- Learning about sustainable WASH services at the institutional level with the consultant and other stakeholders
- Collaboration with RPGEM to develop the model to professionalize and support the relay agents
- Support the DREAH and MEAH in continuing their support of sanitation and hygiene promotion activities

### IR 3.3 Evidence-based WASH behavior change and hygiene promotion shared to influence policy.

#### Output 3.3.1 National-level networks, policies, and programs engaged for sustainable WASH BC

##### Pre-validation workshop of Wash-friendly health center curriculum – Antsirabe with the MOPH

The project has been active in influencing WASH Friendly training practices by participating in the pre-validation workshop of the WASH Friendly training curriculum. Indeed, for several

years, the project has actively promoted a more appropriate and practical WASH Friendly Approach to training.

With the influence of various organizations and projects convinced of the need to improve the WASH Friendly approach, the MoPH Environmental Health team proceeded to establish a Learning to Master training curriculum that focuses on obtaining specific key skills for learners who are already in the workplace.

The workshop, organized from 11 to 15 July in Antsirabe, lasted five days and resulted in three more specific curricula: a curriculum for health workers, a curriculum for community health volunteers, and a new curriculum for hygiene committees. The latter curriculum is the novelty of this activity because it finally defines and clarifies the roles of hygiene committees that must ensure and supervise the delivery of quality WASH services at the health center level.

Operations and maintenance issues, as well as resource mobilization and possible collaboration with the private sector, are mentioned in this new curriculum. The MoPH professional training team is currently validating these curricula. The latest exchanges with the MoPH team reveal that they are still waiting for this validation and expect it in the first term of 2023.

#### ***Support MoPH to update communication materials***

RANO WASH supported the MoPH in holding a workshop on updating communication materials used at the health facility level in May. This resulted in the project co-design of 17 posters destined to be used in all the health centers in Madagascar. The drafts of these posters can be seen on the project website.<sup>15</sup>

#### **Field visit with the MEAH team to attend the prototype phase with iDE**

As presented in Section 3.1.1, the project worked with iDE on rapid prototyping to develop the aspirational toilet model. RANO WASH took advantage of this activity to share with the MEAH team the importance of the MBS approach to improving sanitation in Madagascar. Three MEAH staff members were invited to participate in the rapid prototyping. This gave them a different perspective on sanitation outside the usual CLTS activities.

In addition, after the field visit, we proceeded with a sharing session with the other MEAH staff members. This field visit and the sharing and debriefing session are opportunities for the MEAH team to understand how to integrate the market into sanitation promotion activities.

#### **Activities planned for the next quarter**

- Finalize the communication materials developed with MoPH
- Continue exchanging and sharing with MEAH on sanitation and hygiene promotion activities as part of our transition plan

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<sup>15</sup> <https://care.mg/ranowash/affiche-iec-appui-aux-institutions/>

## 2.2 Gender Mainstreaming

In FY22, the gender component of the RANO WASH project focused its activities on preparing for the Project's transition and closure. RANO WASH supported the MEAH in defining gender-sensitive indicators within SE&AM, documenting and disseminating approaches to mainstream gender and social inclusion. The Project also participated in annual celebrations such as International Women's Day and World Menstrual Hygiene Day.

### Review sessions and jointly define gender-sensitive indicators at SE&AM

In Q1, RANO WASH supported the Ministry in revising the monitoring and evaluation system by collaborating with a consultant. One of the areas targeted for improvement is indicators to monitor and evaluate sector performance while providing key gender-sensitive data for program quality and a more strategic focus, ensuring equitable access to services and commodities throughout the nation and sound and effective governance. Working sessions were held with the RANO WASH team and a consultant to help the Ministry have a responsive and feasible gender-sensitive monitoring and evaluation system.

RANO WASH assisted MEAH in ensuring that indicators are gender sensitive and proposed to introduce i) as a general principle, indicators related to access to services and service delivery should be disaggregated at least by sex and age of the head of household and by geographic location. RANO WASH has also prepared ii) additional indicators on gender and women's empowerment related to WASH governance.

See also Annex 65. Summary of Gender Mainstreaming Achievements in FY2022

### Learning activities on gender mainstreaming

Dissemination of good practices and lessons learned on gender and social inclusion RANO WASH has participated in several learning events to disseminate the Project's achievements in gender mainstreaming and social inclusion. The Project is always part of the events organized by the Ministry of Population, Social Protection and Promotion of Women, and the Ministry of Water, Sanitation and Hygiene. The Ministry of Population, Social Protection, and the Promotion of Women organized two sessions in FY22 to capitalize on partners' experiences and incorporate them into the national communication plan on the prevention and fight against gender-based violence that is currently being developed. RANO WASH has contributed to the reflections for the development of this plan.

The Project has also contributed to various celebrations to convey the importance of gender mainstreaming: World Women's Day, the 16 Days of Activism campaign, and World Menstrual Hygiene Day. Gender communication tools were shared for use by stakeholders.

### Box 2. Examples of proposed gender-sensitive indicators

#### Institutions level

- Number of primary, secondary, and higher education schools (with geographic location) with separate sanitation and hygiene/restroom facilities for boys and girls and teachers/staff.
- Number of primary, secondary, and higher education schools (with geographic location) with facilities to facilitate access for persons with disabilities
- Number of basic and non-basic health centers (with geographic location) with sanitation and hygiene facilities/separate toilets for men and women and staff

#### Women's empowerment related to water, sanitation, and hygiene governance :

- Percentage of women represented in public and private WASH coordinating organizations, regional coordinating positions, and water system associations/managers or water points with geographic location
- Percentage of women who feel they have improved their sources of income through the practice of water, sanitation, and hygiene-related trades with geographic location

RANO WASH has also initiated activities to provide the entire project team with the necessary tools to enable them to scale up the gender activities undertaken: Exchange and sharing workshops between the project staff and all the gender focal points, sharing of lessons learned on gender and social inclusion in the WASH sector during the project capitalization seminar in September.



## Intégration de Genre et Inclusion sociale : Bonnes pratiques pour l'accès à des services et produits WASH inclusifs

Comment garantir à tous l'accès et le  
contrôle des services et produits  
WASH ?

Séminaire de capitalisation – RANO WASH



BushProof



Most recently, the Project participated in international events and initiatives to share gender learning: the 8th African Water Week (AWW8) and the 6th AfricaSan, contributing to case studies with the GIZ-funded Women for Water partnership to share the impacts of women's empowerment activities in the WASH sector.

The report is available at <https://care.mg/ranowash/with-women-better-results-in-water-management-wfwp/>

### Activities planned for the next quarter

- Facilitate the gender marker with RANO WASH during the RANO WASH final evaluation;
- Finalize Gender learning products;
- Disseminate Gender learning products through learning events and several platforms.

## 2.3 Implementation Challenges and Modifications Made/Issues Addressed from the Last Quarterly Report

Table 10. Implementation Challenges FY22.Q4 update

Challenges	Modification / Resolution
<p><b>COVID-19</b> The pandemic's uncertain evolution is a challenge for all project stakeholders as it delays decision-making. The launch of the tendering and contracting process for new water systems was delayed by three months due to the lockdown, the closure of administrative offices, and the MEAH's COVID-19 response was prioritized. The Project adapted its approaches for business continuity and seized the opportunity to advance access to WASH services as a priority to respond to the pandemic. Travel restrictions at the national and local levels delayed several activities, such as data collection to finalize the WMDP, MEAL data collection, or equipment transport for the water systems.</p>	<p>All restrictions are lifted, but the project team must comply with sanitary measures.</p>
<p><b>Quality tests.</b> The analysis of water quality by the Institut Pasteur of Madagascar was limited this year because it was difficult to mobilize the IPM for water analyses that require on-site travel since the pandemic. Water operators continued the analyses with their means.</p> <p>In Q1, the IPM resumed its operations to meet water quality testing needs at the regional level. The region of Vatovavy Fitovinany is still in the process of seeing with the IPM their availability.</p>	<p>IPM has resumed its normal pace. The partnership with the RISE Project should also help WSPs benefit from IPM support.</p> <p>We have strengthened the monitoring and support of WSPs to ensure the treatment and monitoring of water quality. This will be a major project effort in FY23. We are looking for private operators who provide consumables for water quality testing and new testing equipment, such as chlorine reagents, aluminum sulfate, and other water treatment devices. We will continue to provide DREAHs with the frequent support needed by WSPs to ensure systematic water quality monitoring after the Project's close out.</p>
<p><b>Paradigm shifts regarding private sector engagement</b> The main challenges in engaging the private sector in providing WASH services reside in considering the private sector as a development actor and partner and for all stakeholders to understand and adopt a market-based mindset. It starts with the project members, who are more familiar and comfortable with community-based approaches and suspicious of the private sector. Government and local authorities have historically promoted the idea of free public services and have not developed an enabling environment for private sector engagement and investment.</p>	<p>Water service providers are small and growing businesses. They have the technical capacity for infrastructure but lack management and marketing capacity. This gap still makes it difficult to change the thinking of all WASH actors because we still need to build the capacity of these companies. The change is not obvious because it is a long process, and the expected results require more time. However, we are aware that this is a sustainable solution.</p> <p>We continued to organize events to share and debate the challenges of private-sector engagement in the WASH sector. We will continue to involve the DREAH and the MEAH at the national level in the reflections on the involvement of the private sector in influencing the sector.</p>

Challenges	Modification / Resolution
	<p>We will also continue training and coaching businesses to strengthen their marketing strategy. They are beginning to implement activities according to the work plans developed together but still require close follow-up because the impacts are not immediate. The appropriate solution is applied, such as providing materials to constitute a "revolving stock" system and an easy payment strategy. The support of the companies must be a long process until they take the pace to become a real entrepreneur.</p> <p>We are also organizing various events to engage investors to mobilize resources for the WASH sector and various funding institutions to support private sector engagement for the WASH sector. Smaller operators are among the main victims of the current inflation. We try to support the companies by providing materials and their connection with private sector support institutions and/or investment and guarantee institutions. We also strengthen them to advocate with the leaders.</p>
<p><b>Monitoring social changes to promote gender and social inclusion:</b> To monitor gender and social inclusion changes, having indicators to track social changes remains a challenge.</p>	<p>The Social Analysis and Action approach allowed us to identify social barriers at the community level and the areas of change to be prioritized. The approach provided us with simple tools to measure change.</p> <p>Establishing the various mapping of the actors facilitates the reflection at the level of the teams and the stakeholders with whom we work. We will disseminate these results to stimulate discussions.</p>
<p><b>It is still difficult for the different actors, including project staff, to reconcile behavior change activities with the use of WASH services.</b> The traditional conception of behavior change resulting from information and communication persists in individual and collective beliefs, sometimes making it difficult to implement more innovative strategies at different levels with other development stakeholders, public institutions, and especially private sector collaboration.</p>	<p>Continued activities with iDE will help us move forward in linking behavior change with service use. We are also strengthening marketing activities with water service providers and involving more VLSAs, who are generally more receptive to adopting products and services that improve their lives. We will accompany these early adopters to influence their neighbors and relatives for the ripple effect.</p> <p>The current good results demonstrate the effectiveness of the approaches and the importance of an integrated approach. We will strengthen the sharing of lessons learned.</p> <p>As part of the transition, RANO WASH will systematically organize a sharing meeting with UNICEF on activities with iDE to ensure continuity even after RANO WASH.</p>



Challenges	Modification / Resolution
<p><b>Transferring water services from community-based management to private management</b></p> <p>The transfer of community management to private management poses several challenges. The individuals who manage the water services are the first to refuse change for fear of losing their interest even if the services are not working well. The NGOs that set up the infrastructure are also the entities that manage it. And there are different types of social conflicts behind the infrastructures (water management, those who have allocated money for the infrastructure, ...). Few people and entities are familiar with the laws in place on communal project management. The transfer of management thus becomes a long process.</p>	<p>We have strengthened the inter-ministerial partnership for a common understanding of the laws and the approach adopted. We have also empowered all relevant authorities, such as the Governor of the Region, the Chief District, the Commune, and especially the MEAH and DREAH.</p> <p>We are documenting the process to serve as a tool for the sector, as it is a great challenge for the water sector in Madagascar. Then, we will include it in the PPP toolbox.</p>
<p><b>Resource mobilization for the WASH sector:</b></p> <p>Funding remains a major barrier to increasing access to services. The Project and private operators mostly fund the PPP model.</p>	<p>The Project continues to influence the public and private sectors on the added value of PPP for user-centered, inclusive, and sustainable WASH services. Capacity building of Communes on fiscal mobilization and engagement of local private operators is beginning to bear fruit.</p> <p>The Project supports DREAHs in organizing events such as the water fair meeting with stakeholders such as Chambers of Commerce and Industry, GEM/GFEM, banks, and MFIs to publicize WASH business opportunities.</p> <p>But most importantly, the Project contributes to advocating the importance of strong government leadership for successful private sector engagement.</p> <p>RANO WASH shares the PPP model with potential donors and investment/funding mechanisms at the national and international levels. In Q2, two sessions were organized with the IFC of the World Bank and Uptime. The latter is providing funding to WSPs for result-based contracts for water supply services. Larger matchmaking events will be organized in Q3.</p>
<b>NEW CHALLENGES</b>	<b>MEASURES TAKEN</b>
<p><b>Turnover at MEAH/DREAHs:</b> With difficult situations (COVID-19, Madagascar's water problem), WASH sector governance faces several challenges. Frequent change at the national and regional levels at the MEAH level only complicates and slows down ongoing activities.</p>	<p>The Project has always tried to work with the entire directorate team, national or regional, to ensure more skills transfer to a team, not just to the directors. The Project focuses on developing training and course modules to ensure approaches and tools continue to be used.</p> <p>The Project has also documented its achievements with MEAH and DREAHs. One of</p>

Challenges	Modification / Resolution
	the biggest paradigm shifts is the private sector's engagement in implementing PPP tools for drinking water services. RANO WASH is developing the PPP toolkit on its website for the moment. Still, it will transfer it to public websites such as MEAH and EDBM in the next quarters to ensure continuity and make it available to all actors in the sector.
<p><b>Natural Hazards:</b> Q2.22 was marked by three cyclones, heavy rainfall, and bad weather. Many Communes of intervention were inaccessible. Private operators and households had difficulty rehabilitating damage caused by wind or heavy flooding.</p>	RANO WASH has actively participated in Cluster meetings at the regional level to have timely information and share situations in the Project's intervention Communes. Participation in these meetings has contributed to the rapid escalation of information to enable emergency actors to respond to imminent needs.
<p><b>Insecurity</b> related to kidnapping peaked in January and February, with some confirmed cases in the Alaotra Mangoro region. RANO WASH had to interrupt activities in some Communes for the safety of the project team.</p>	The Project's mobilization of regional authorities, security forces, and stakeholders in the area has resulted in the systematization of information sharing on suspected cases of kidnapping and insecurity in general with law enforcement.
<p><b>Change in USAID subcontractor approval requirement (change from DUNS to UEI online system)</b></p> <p>Difficulty in obtaining the UEI needed to obtain USAID approval for the WSP construction contract delayed the installation of the water systems and impacted the outcomes for access to water services. It also impacts the budgetary performance of the Project.</p>	The Project field team members reviewed strategies to meet drinking water targets. Instead of starting construction, which will require time for contracting and contingencies during construction, the Project is opting to provide WSPs with materials for extensions to existing systems. Underserved villages will benefit from these interventions.
<p><b>Data collection during the transition phase of the project</b></p> <p>Difficulty in ensuring data completeness without the presence of project staff in the project's intervention communes</p>	For the last two quarters of FY22, the RANO WASH MEAL team has implemented a data loop that is not dependent on the project staff. However, we know the control limitations of all stakeholders involved in this data reporting system. We will hire part-time staff to coach these agents in the operationalization of the system to ensure that it continues beyond the Project's life.

## 3 MONITORING, EVALUATION, ACCOUNTABILITY, AND LEARNING (MEAL)

### 3.1 MEAL System Update

#### **RANO WASH dashboard**

The MEAL team finalized the project visualization dashboard, and the link to access the dashboard is presented below. The current dashboard has considered some new indicators as requested by the program team, and the new dashboard facilitates the visualization of achievements.

Below is the link to the dashboard: [Microsoft Power BI](#)

#### **Review of FY23 PMP**

At the end of the fiscal year FY22, the project met and exceeded most of the targets set for FY2-22, as well as the life of the project.

Indeed, a review of the targets was done, resulting in the five (05) indicators below that will still present targets to be achieved in FY23:

- 1.2. (HL.8.4-1) Value of new funding mobilized to the water and sanitation sectors as a result of USG assistance
- 1.1.1. National Sector Development Action Plan implemented
- 2.2.1. (HL.8.1-1) # of people gaining access to basic drinking water services as a result of USG assistance
- 2.2.2. (HL.8.1-2) # of people gaining access to safely managed drinking water services as a result of USG assistance
- 2.2.5. (HL.8.5-1) # of people benefiting from the adoption and implementation of measures to improve water resources management as a result of USG assistance

### 3.2 RANO WASH MEAL Transition strategy

#### **MEAL Transition strategy**

The Project MEAL transition plan has been prepared with the regional MEAL team. It presents the adjustment of the MEAL and SE&AM system to ensure the continuity of the reporting of achievements in the field, and especially to complete the needs of the project and the Ministry.

The MEAL transition plan update is presented in Annex 17 of this report.

#### **Operationalization of the collection system with STEAH using DHIS2-SE&AM**

As part of the implementation of the RANO WASH MEAL transition strategy and also to support the operationalization of the SE&AM, a training of the Ministry of Water, Sanitation and Hygiene staff on the DHIS2 platform was organized in the seven (07) regions of the project from August 16 to September 01, 2022.

The data collection forms in SE&AM-DHIS2, whether for the PTFs, the GICs, or the ATEAH, were designed with the MEAH team. Also, to operationalize the system, training was organized for

- On the one hand, train DREAH staff with PTFs in the 7 RANO WASH project intervention regions on the DHIS2 system and their roles in the operationalization of the data collection and validation system; and

- On the other hand, train the ATEAH of the project's intervention communes in the data collection system with the data collection forms using the DHIS2 platform.

The MEAH team provided the training with the support of the RANO WASH project MEAL team, as described in the table below.

Table 11. Type and number of people trained on DHIS2-SE&AM

Regions	Dates	Participants	Number of participants		
			Men	Women	Total
Vakinankaratra	August 16 and 17, 2022	DREAH, PTF	4	6	10
	August 18 and 19, 2022	ATEAH	29	0	29
Atsinanana	August 22 and 23, 2022	DREAH, PTF	1	1	2
	August 24 and 25, 2022	ATEAH	40	9	49
Alaotra Mangoro	August 29 and 30, 2022	DREAH, PTF	11	1	12
	August 31 and September 1	ATEAH	44	4	48
Amoron'i Mania	August 16 and 17, 2022	DREAH, PTF	6	2	8
	August 18 and 19, 2022	ATEAH	27	3	30
Haute Matsiatra	August 22 and 23, 2022	DREAH and PTF	4	5	9
	August 24 and 25, 2022	ATEAH	18	2	20
Vatovavy and Fitovinany	August 29 and 30, 2022	DREAH and PTF	4	2	7
	August 31 and September 1, 2022	ATEAH	51	4	55
<b>Total Participants</b>			<b>239</b>	<b>39</b>	<b>279</b>



Picture 1. DREAH V7V staff, DSI trainers from MEAH and RANO WASH team



Picture 2. ATEAH training in the Alaotra Mangoro region

### 3.3 Learning

#### Learning and capitalization plan

As part of the transition, a capitalization seminar was organized at the Panorama Hotel from September 19 to 22<sup>16</sup>. The seminar aimed to share the project's achievements with all the WASH sector stakeholders. (see Annex 11. TOR RANO WASH Capitalization Seminar).

As a first step, a workshop was held with the Project Coordination Team on August 24 and 25. The purpose was to share the project's learning products and define the seminar's objectives. For this, the exercises aimed at listing all the products and themes to be presented and the targets by themes.

As part of the learning questions, about 12 themes were addressed during the seminar<sup>17</sup>:

- **Strong government for inclusive and sustainable WASH services:** How can MEAH and DREAH leverage the systems approach for an enabling environment for WASH sector development?
- **Local structures committed to inclusive and sustainable WASH services for their communities:** How can local community initiatives be developed to influence the quality and development of WASH services?
- **Successful community ownership to ensure inclusive and sustainable WASH services:** How can communal ownership accelerate access to WASH services for Madagascar?
- **Good practices for access to inclusive WASH services and products:** How can we ensure access and control of WASH services and products for all?
- **WASH investment opportunities for the private sector:** How can the private sector contribute to WASH sector development?
- **Resource mobilization by Communes to achieve inclusive and sustainable WASH services:** How has the Project Owner increased public funding for inclusive WASH services?
- **Human-Centered Design to develop the sanitation business:** What approach should be taken to build a business that meets the aspirations of rural customers?
- **WASH business opportunity for young entrepreneurs and small private operators:** How can we contribute to the emergence of markets for WASH products through small private operators?
- **Ensuring the growth of companies Managers - Builders - Investors working in the drinking water sector:** How can we build a drinking water utility's profitability and support its management companies' growth?
- **Mobilize the private sector in implementing and managing sustainable and climate-resilient WASH infrastructure:** How has the private sector contributed to developing sustainable and climate-resilient WASH infrastructure?

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<sup>16</sup> <https://care.mg/ranowash/seminaire-de-capitalisation-du-projet-rano-wash-en-video/>

<sup>17</sup> See also Annex 9. RANO WASH Knowledge Management Framework and Annex 10. Learning Plan Q4.22

- **Strategies and actions to accelerate behavior change and the use of WASH services:** How have the GUS and VSLA approaches accelerated the adoption of hygiene behaviors and use of services?
- **The systems approach, a lever for scaling up ODF status:** How did a systems approach facilitate access to basic sanitation services and scale up ODF status?

The capitalization seminar then took place in 2 parts. From September 19 to 20, the goal was to share the themes treated between the PCT and the regional teams. Working teams were formed beforehand to deal with each of the finalized themes. Simulations were organized throughout these two days to prepare the sharing with the different sector actors. And from September 21 to 22, the teams presented the 12 key themes to the workshop with the actors and participants.

At the end of the workshop, the abstracts of the 12 themes and the presentations were put online on the RANO WASH website. An update of the website will also take place to insert all the documents that can be used as a reference for the 12 shared themes.

### **Learning studies**

#### **a. Inclusive accountability**

During the reporting period, the PCT conducted a learning study on inclusive accountability. RANO WASH PCT organized an e-learning workshop in May with the participation of the regional teams to have a shared understanding of the situation. The regional teams went down to the communes to conduct interviews with mayors and WSPs and group interviews at the community level. The draft brief is submitted as an annex to the current report. As a result of the analysis conducted, the following recommendations were made:

- **Recommendation 1: Involve the population in choosing channels to be set up for the accountability mechanism.** Involving the population in the choice of communication channels will allow for selecting channels that are most accessible to these communities and, therefore, likely to be used by them to provide feedback and complaints. Similarly, during the consultation process, it is important to be as inclusive as possible to allow vulnerable segments of the population to propose channels that are also accessible to them and that guarantee the confidentiality of information to avoid abuse.
- **Recommendation 2: Conduct mass sensitization of citizens on the existence of accountability mechanisms and their right to use them to provide feedback or complain about the management of public affairs.** The problem with accountability mechanisms in our communes is that the people who are supposed to use them are unaware. It is, therefore, important that when the commune engages in accountability, it sensitizes its populations to the existence of these mechanisms. It also creates awareness of the right of these populations to use the mechanisms in place to complain or provide feedback to the local authority.
- **Recommendation 3: Ensure that communication channels include those that can guarantee confidentiality and anonymity for sensitive complaints.** Most of the channels offered by municipalities do not guarantee anonymity and confidentiality for feedback and complaints. However, sensitive complaints such as whistleblowing and fraud need to guarantee the anonymity of the whistleblowers, and the community meetings that seem to be more widely used in the field do not necessarily guarantee this anonymity.

### **b. Gender approach promoted by RANO WASH**

During the sharing and transition workshop on the project's achievements in gender mainstreaming and social inclusion in WASH in May, themes were proposed for the videos to be produced on this theme. The script was developed in collaboration with the Communication team, and the filming and editing were done during this quarter. The story of Vola, a local seamstress living in the Amoron'i Mania region, helped cover the proposed themes. The video has been uploaded and is available on the RANO WASH website.

A learning study on gender and the private sector was also conducted. The purpose was to share the process initiated by the project in integrating gender in support of the collection of demands and the provision of WASH services, to analyze the access of women, youth, and marginalized groups to WASH services, and to discover the impacts at the level of women and youth entrepreneurs about their engagement in the private sector in the WASH sector.

At the end of this document review, RANO WASH has implemented a gender and social inclusion strategy focused on building self-awareness and self-esteem among women and marginalized groups, improving relations between different social groups, and transforming social structures. As a result of this gender strategy, particularly concerning access to services provided by the private sector, services are provided equitably to all segments of society.

Indeed, women are the majority of the beneficiaries of water and sanitation services. In addition, all age groups have equitable access to these services. However, despite the project's efforts, the participation of women and youth in local structures for participation in WASH sector management remains relatively low. But the efforts that have been made should be capitalized on to increase the representativeness of these groups both in membership and in the decision-making bodies of these local structures. Hence the need to build the capacity of women and youth in leadership and participation, especially to ensure that training venues are as close as possible to these vulnerable groups in society.

### **3.4 Accountability to people served: Green Line**

Overall, RANO WASH received only 69 calls from project beneficiaries, and the distribution of these calls per district is presented in the table below.

Table 12. Green Line. Number of RANO WASH calls FY22

Region	District	Number of Calls
<b>ALAOTRA MANGORO</b>	Amparafaravola	1
<b>AMORON'I MANIA</b>	Ambositra	5
	Fandriana	4
	Manandriana	2
<b>ATSINANANA</b>	Brickaville	5
	Vatomandry	6
<b>Haute Matsiatra</b>	Ambalavao	6
	Vohibato	2
<b>VAKINAKARATRA</b>	Antanifotsy	2
	Antsirabe II	1
	Betafo	15
<b>FITOVINANY</b>	Ikongo	1
	Manakara	18

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 RANO WASH FY2022 Quarter 4 and Annual Report

Region	District	Number of Calls
	Vohipeno	1
<b>Total</b>		<b>69</b>

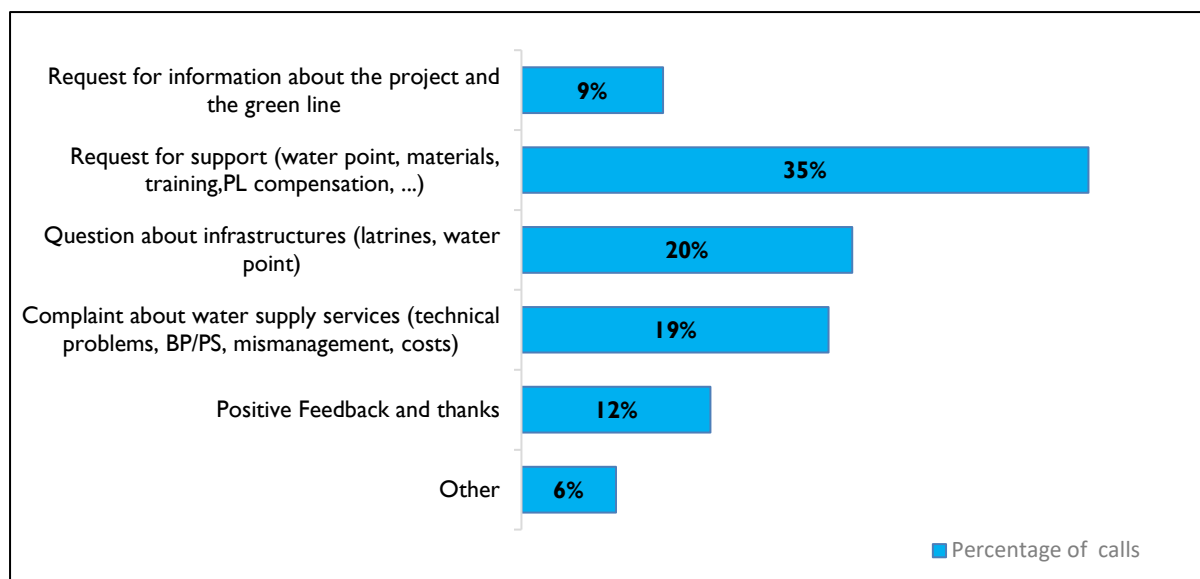


Figure 10. Green Line: Reasons for calls

Beneficiaries call for different reasons, as shown in figure 10. This year, most of the calls are related to requests for support, representing 35% of the calls recorded. 20% of the calls were related to sanitation and drinking water infrastructure issues, and 19% were complaints about water supply services.

Compared to the scope of the project and the number of targets, the use of the mechanism is still low.



## 4 MANAGEMENT AND ADMINISTRATIVE ISSUES

### Management

All project offices continued their activities during the reporting period, adapting and taking relevant sanitary measures to conduct their activities with a gradual return to in-person meetings across the consortium.

The Project continues to apply a matrix management structure to have better project management due to the program implementation's technical and geographical complexities. The Project also continues adaptive management, drawing lessons from experience with the COVID-19 pandemic, using a hybrid model (telework + in-person) modality for the PCT office in Antananarivo, using online platforms to organize webinars and online meetings, and adapting field activities, travel, and health restrictions. (see Annex 14)

Project management and coordination highlights from this quarter include the following:

- COP-DCOP/MEAL Programmatic and Technical Meeting – Weekly
- COP-DAF Finance/Operations Meeting – Weekly
- Project Coordination Team Meeting – Monthly
- Regional-PCT Skype Calls–Monthly
- Regional-level Team Meetings – Biweekly to Monthly
- MEAL PCT/Region/Skype – Weekly
- MEAL Review PCT/Region Meeting/Skype – Quarterly

### Personnel

- At the end of the reporting period (September), departure of Henintsoa Ramanahadray, MEAL Manager

### Transition plan

As part of the Project transition plan (Annex 8), the regional offices will be progressively closed with a handover/transition conducted with regional and communal authorities and stakeholders. The graph below illustrates the progressive withdrawal of project staff until June 2023: starting with field agents, then zone supervisors, regional team members, and the central project coordination office. The Subagreement of the consortium members ends in March 2023; the last three months will be devoted to the administrative subgrants closure and final reporting by the Project key personnel.

---

<sup>1818</sup> In the context of RANO WASH, the project is managed adaptively through a continuous learning and iterative approach. The project explores and refines ways to meet the project outcomes, based on the results of various research and assessments conducted to date, as well from the collaboration and synergies with other projects and stakeholders to inform implementation strategies.

## Rural Access to New Opportunities in Water, Sanitation, And Hygiene RANO WASH FY2022 Quarter 4 and Annual Report

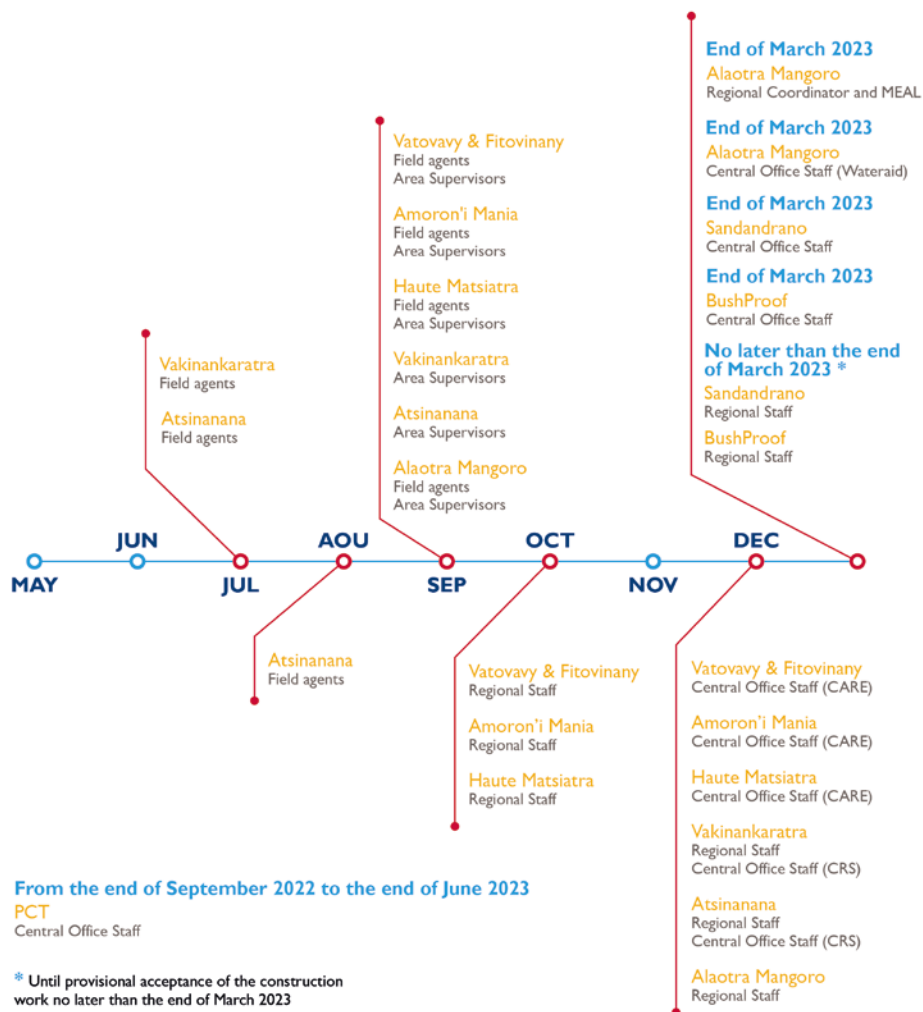


Figure 11: Phase out of the RANO WASH project team

### Coordination

RANO WASH continues to engage with USAID monthly and GoM partners at the regional, communal, and national levels. As part of the COVID-19 coordination, RANO WASH continues attending periodic meetings with USAID HPN partners

### Events and Visits

Some of the more noteworthy visits/events during this quarter (excluding those at the regional level) are presented in Annex 12.

## 5 FINANCIAL MANAGEMENT

RANO WASH's total expenditure in Q4 FY 2022 is \$1,742,887. It is computed to give a Year To Date (YTD) expenditure of \$6,330,069, representing a burn rate of 78% against the total budget of \$8,076,870.

The overall financial performance in Q4.22 has been affected by the delay in negotiating with the subcontractors for the construction to maintain the amount approved by USAID, which also took some time to get the approval.

Besides, CARE recorded commitments of \$151k not reported this quarter, giving anticipated YTD expenses of \$6,481,560, representing an anticipated burn rate of 80%.

RANO WASH also submitted the financial report (SF425) for this quarter to USAID, reporting a cumulative expenditure of **\$27,681,033**, representing a burn rate of **92%** compared to the NCE budget of \$30,000,000 and a cumulative cost-share of **\$3,909,273**, representing **130%** of \$3,000,000 per the Cooperative agreement.

Annex 4. RANO WASH Finance & Cost Share Q4.22 Update provides further details.

See also Annex 5. RANO WASH Disposal Plan Update Q4.22

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# RANO WASH

## Rural Access to New Opportunities in Water, Sanitation, And Hygiene

### FY2022 Quarterly & Annual Report

July 1 to September 30, 2022

# ANNEXES

# RANO WASH

## Rural Access to New Opportunities in Water, Sanitation, And Hygiene

### **FY2022 Quarterly Report**

### **July 1 to September 30, 2022**

Submission Date: October 30, 2022

Cooperative Agreement Number: AID-687-A-17-00002

#### **SUBMITTED TO**

Nary Ramanarivo, AOR, USAID/Madagascar

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#### **DISCLAIMER**

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## **ANNEX I. RANO WASH IN PICTURES**



Final acceptance of the water supply system of the commune of Ivato Centre, region Amoron'i Mania region on August 9 2022



RANO WASH / Photos : Dahery Razaka



RANO WASH / Photos : Dahery Razaka

ATR, the company manager - investor - builder of the AEP system in the Ivato Centre commune, Amoron'i Mania region, has installed a fire hydrant in its area. This device is now functional in case of fire



RANO WASH / Photos : Dahery Razaka



RANO WASH / Photos : Dahery Razaka

Courtesy visit by representatives of the Ministry of Water, Sanitation and hygiene and representatives of the RANO WASH project, to the head of the district of Ambalavao, Haute Matsiatra region



RANO WASH / Photos : Dahery Razaka



Photo : Dahery Razaka

Thanks to the sensitizations of the Fivoarantsoa association, within the framework of the national competition of the Village Savings and Credit Associations, 1,938 people from 188 households have access to drinking water in the Andrainjato commune, Haute Matsiatra region



RANO WASH / Photos : Dahery Razaka

RANO WASH communication team interviewing a new beneficiary of drinking water in the Haute Matsiatra region, Ambalamahasoa commune



RANO WASH / Photos : Dahery Razaka





125 private connections and 23 social connections are installed in the commune of Andrainjato, Haute Matsiatra region, through the newly built drinking water supply infrastructure



Built by the company Mickael within the framework of the RANO WASH project financed by USAID, this infrastructure guarantees access to drinking water for at least 2,407 people in the commune of Andrainjato, Haute Matsiatra region by the end of the year 2022



WASH / Photos : Dahery Razaka



Inauguration ceremony of the drinking water supply system in the commune of Andrainjato, Haute Matsiatra region, in the presence of the Minister of Water, Sanitation and Hygiene; the governor of Fianarantsoa; the deputy; the chief district; the mayor of the commune and representatives of the consortium RANO WASH





New drinking water infrastructure being finalized in the commune of Ambalamahasoia, Haute Matsiatra region



Eight new local promoters are being trained on the five key WASH messages by support technicians. They will facilitate the adoption of healthy behaviors by target households in the commune of Andonabe, Vatovavy region



This water supply system by solar pumping in the Andonabe commune, Vatovavy region, consists of a catchment dam, a purification station, water tanks, connecting the water networks to households and institutions.





Photos : Dahery Razaka

**Drinking water is now available in Andonabe commune, Vatovavy region**



Photos : Dahery Razaka

**This little girl soothes her thirst and takes advantage of the new collective water point offered by the company managing the AEP system in Andonabe, Vatovavy region**



**Mr. Philibert is very concerned about his hygiene. He has a latrine and a shower and is also treasurer of the village savings and credit association Avontsoa, in the commune of Ambohitsimanova, Vakinankaratra region.**



**Thanks to the sensitizations of the village association of savings and credit Avontsoa, the inhabitants of their village, Soamiakatra, commune Ambohitsimanova, region Vakinankaratra do not practice any more the defecation in the open air**





WASH / Photos : Dahery Razaka

**A special connection has been installed in the home of Solohery. He can quench his thirst at will**



Photos : Dahery Razaka

**In order to respect the hygienic rules in her small restaurant, Mrs Jeanne had a special connection installed in her home**



Access to drinking water in the Ambohitsimanova commune, Vakinankaratra region, facilitates the daily life of the inhabitants, especially mothers like Justine



**Madame Florine proudly displays her products in her workshop. She has been making washable sanitary napkins for two years following the training she received from RANO WASH. She sells about fifty towels per month.**



**Emmanuel, a local mason from Ambohitsimanova, Vakinankaratra region has invented a responsible and anti-pollution formula. These bricks are made from sand and plastic waste to build and decorate the latrines of his clients.**



RANO WASH / Photos : Dahery Razaka



RANO WASH / Photos : Dahery Razaka

The association Manirisoa, created by women seamstresses trained by RANO WASH, chaired by Maminaina has obtained a contract for the manufacture of washable sanitary towels for an amount of 47 million Ariary



**ACOGEMA, the company that builds and manages infrastructure in the commune of Ambohitsimanova, Vakinankaratra region, offers a 77% discount to the first hundred applicants for private and social connections**



**This semi-circular tank ensures the storage of drinking water before its distribution to households, schools and health centers in the Ambohitsimanova commune, Vakinankaratra region**



WASH / Photos : Dahery Razaka

The awareness campaigns conducted by RANO WASH teams in the regions are bearing fruit. Even children like Feno are getting used to the essential gestures to keep a good life hygiene



Photos : Dahery Razaka

After the inauguration of the drinking water supply system of the Andrainjato commune, Haute Matsiatra region, it was the first test of the water by its inhabitants. Wonder and joy fill their faces...



WASH / Photos : Dahery Razaka

Representatives of the **RANO WASH** team as well as members of the consortium and partners in front of the newly inaugurated collective water point at the public college in the commune of Andrainjato, Haute Matsiatra region



WASH / Photos : Dahery Razaka

The inhabitants of the commune of Ambalamahasoa, Haute Matsiatra region, can now draw water three steps from the door



RANO WASH / Photos : Dahery Razaka

**Water has arrived in the village...Bota quenches his thirst while his friends don't believe it yet**



**The first particular connection on Ivato center, Amoron'i Mania region**





Clara, 5 months pregnant, a woman who after a fall became disabled, had a special connection installed in her yard in order to have a healthy and clean lifestyle like normal people



RANO WASH / Photos : Dahery Razekel



This couple, along with their five children, built their own latrine and had a connection installed in their house to facilitate the adoption of good hygiene practices





Seminar of Capitalization of the RANO WASH Project at the Hotel Panorama from 19 to 21 September 2022



## ANNEX 2. RANO WASH SUCCESS STORIES Q4.22



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# SUCCESS STORY

## Testimony of a Village Agent who contributed to the development of a whole community...



**RAFANJAMALALA JEANNE ARLETTE** is a village agent in the commune of Andrainjato Ambalavao, Haute Matsiatra region.

Her role is to create village savings and credit associations (VSLA). She chose this job because she is convinced that mobilizing a small group of people to work together and support each other could change the world. In her case, the adoption of behavioral changes leads to progress and would allow the development of her community.

She has been able to create 25 savings and loan groups since she decided to take on this task one year ago. Founder of a village savings and loan association

«I walked several kilometers under the sun from Fokontany to Fokontany» she said. The difficulty would not make me give up the opportunity to contribute to the development of my commune.

The RANO WASH project launched the National VSLA group competition at the beginning of the year, which consisted in increasing the number of beneficiaries with drinking water.

Arlette convinced 10 VSLA groups to participate in this contest, which gave her the title of Relay Agent. Only one of them could finish to the end, the Association FIVOARANTSOA.

She established with them an action plan to win this contest, to create the maximum of particular connections by making sensitizations door to door, to create private meetings of information or animations during the days

of the market, and to build collective water points. 2 have been created which generated 800 beneficiaries. The FIVOARANTSOA group mobilized 1,800,000 ar between them to enable the realization of their action plan.

It was not easy. Walking several kilometers a day without eating except for green mangoes found on the road, hard knocks, sunburns, were their daily life during the few months of the contest.

**RASAMIMANGA MARCELLE**, municipal councillor of the commune of Andrainjato and member of the group VOAMAMI FIVOARANTSOA actively participated in the contest

Sensitizing a household was not easy,» he said. We had to come back 2 or 3 times to convince them. We take them quickly to the manager so that they don't change their mind.



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Thanks to Arlette's encouragement, the support of the commune of Andrainjato and their determination, the FIVOARANTSOA group came 2nd in the National VSLA competition and 1st in the Haute Matsiatra region by creating 3,482 beneficiaries with drinking water.

Arlette's efforts were rewarded by a motorcycle offered by the RANO WASH project as the best relay agent and she became the head of the agency of the company MICKAEL also, the manager of the new drinking water system in Andrainjato Ambalavao, since recently.

The perseverance of a few people can contribute to the development of a whole commune, why not of a whole country.

Actions led by :  care

## ANNEX 3. COMMUNICATION AND MEDIA UPDATE Q4.22



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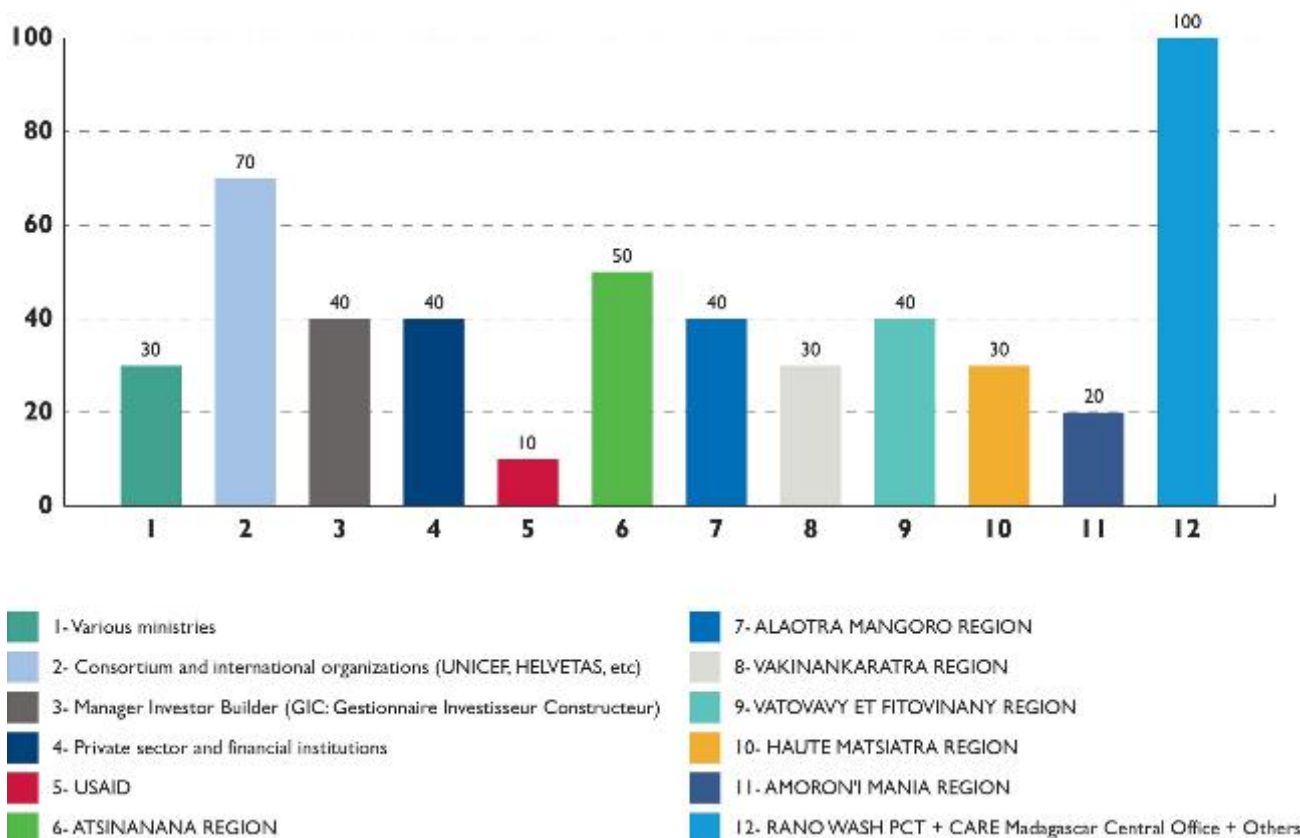
The RANO WASH Communication team is responsible for effectively documenting and disseminating project achievements, results, best practices, and lessons learned to a broad audience at the international, national, and local levels. The team also provides communication assistance to the project coordination team and regional teams.

## DESIGN AND DISTRIBUTION OF CALENDARS

Like every New Year, the communication team designs calendars and goodies to distribute to partners, consortium members and other actors from all sectors.

A total of 500 calendars have been designed and scheduled for distribution.

### Calendar distribution list for the year 2022



## MAJOR EVENTS DURING FY22

### Q1

#### Water forums in the regions of intervention of RANO WASH

Currently, 59% (15.3 million people) do not have access to basic water services in Madagascar. Regarding hygiene, 77% (20 million people) of the population does not have access to a basic hygiene service (hand wash, water, soap), and more than 80% of public institutions remain without water, sanitation, and hygiene (WASH) services.

Within the Plan Emergence de Madagascar (PEM) framework, and according to the Velirano n°2 of the President of the Republic, the promotion of universal access to drinking water is a priority. In 2023, the objective is that 60% of the population will have access to drinking water.

Thus, the establishment of Public-Private Partnerships at the level of the Communes would allow for the financing, implementation, and development of a wider range of management options for improved water supply services in urban and rural areas to achieve this objective.

Communes have expressed the need to seek partnerships, as they have resources (financial? water?) for water services, following TFP support on planning, budgeting, and resource mobilization for WASH services.

In order to reach the 60% target of people with access to water services by 2023, we have supported the Communes to carry out an inventory of business opportunities in the «water business», of existing drinking water infrastructures and to establish a communal water supply plan.

In this context, amongst other major events, several water forums in the regions of Vakinankaratra, Amoron'i Mania, Atsinanana and Alaotra Mangoro have been organized for the months of November and December 2021.

#### Official launch of the national «hand hygiene for all» campaign

Global Handwashing with Soap Day (GHWSD) took place on October 15. It is dedicated to raising awareness to wash hands with soap to prevent many infectious diseases.

It is within this framework that the Minister of Water, Sanitation and Hygiene Minister Ladislas Adrien RAKOTONDRAZAKA, the Ministry of Public Health Professor Zely Angelo RANDRIAMANANTANY, the Ministry of National Education SAHONDRARIMALALA Marie Michelle, the representative of USAID Dr. Haja Razafindrafito, and the Chief of Party of the project RANO WASH, Sebastien FESNEAU participated in the launch of this campaign at the Hotel CARLTON Anosy. An advocacy that aims to support good hygiene practices, including handwashing with soap on a regular basis.

With the leadership of the three Ministers and the commitment of all actors like RANOWASH, Madagascar is on the right track to achieve the major goals of hand hygiene for all.



## **Economic and Commercial Fair of the 23 regions**

From November 25 to 28, 2021 took place the Economic and Commercial Fair of the 23 regions at the Barea Mahamasina Stadium. With more than 700 local companies, economic operators and public decision makers, 16 major cities of Madagascar held simultaneously and interconnected the same event.

With the objective of economic recovery, it was an opportunity to highlight the wealth of each region and even each municipality of Madagascar and to find business opportunities. The objective was also to create the connection between the economic operators of the 23 regions in order to discover new outlets.

It was within the framework of this event that the RANO WASH project funded by USAID, in joint organization with the Ministry of Water, Sanitation and Hygiene organized a conference on business opportunities in the WASH sector on Friday, November 26, 2021. RANO WASH also held a stand to further publicize the project and business opportunities in its communes of intervention



## **Water, sanitation and hygiene sector review 2021**

A water, sanitation, and hygiene review was organized on December 7 and 8, 2021. The event was scheduled to see the achievements and results reached by each actor in WASH for the year 2021, the constraints and lessons learned; to discuss the strategic points of each axis of action defined in the performance contract, and to insert the Integrated Water Resources Management (IWRM) aiming at the preservation of water quality and the rational use of resources. The objective was to obtain the results of the performance evaluation of the sector related to the strategic documents in order to coordinate, harmonize and program future actions

DATE	EVENT	LINK
29 September to 01 October 2021 - Fianarantsoa - Haute Matsiatra Region	Annual review FY2021 in Fianarantsoa, Haute Matsiatra Region	<a href="https://care.mg/ranowash/la-revue-annuelle-fy21-de-rano-wash-a-fianarantsoa-region-haute-matsiatra/">https://care.mg/ranowash/la-revue-annuelle-fy21-de-rano-wash-a-fianarantsoa-region-haute-matsiatra/</a>
October 11 to October 13, 2021 - Antananarivo	PCT review workshop	
October 25, 2021 - Antananarivo	Official launch of the national campaign "hand hygiene for all"	<a href="https://care.mg/ranowash/lancement-officiel-de-la-campagne-nationale-hygiene-des-mains-pour-tous/">https://care.mg/ranowash/lancement-officiel-de-la-campagne-nationale-hygiene-des-mains-pour-tous/</a>
03 to 06 November 2021 - Antsirabe - Vakinankaratra Region	Vakinankaratra Water Forum - USAID visit	<a href="https://care.mg/ranowash/revue-sectorielle-eau-assainissement-et-hygiene-2021-du-07-et-08-decembre-2021/">https://care.mg/ranowash/revue-sectorielle-eau-assainissement-et-hygiene-2021-du-07-et-08-decembre-2021/</a>
November 08, 2021 - Antananarivo	CWG (Communications Working Group) meeting with USAID	
November 24 to November 28, 2021 - Antananarivo	Economic and Trade Fair of the 23 Regions and "Conference on business opportunities in the water, sanitation and hygiene sector"	<a href="https://care.mg/ranowash/foire-economique-et-commerciale-des-23-regions/">https://care.mg/ranowash/foire-economique-et-commerciale-des-23-regions/</a>
07 to 08 December 2021 - Antananarivo	Water, Sanitation and Hygiene Sector Review 2021	<a href="https://care.mg/ranowash/revue-sectorielle-eau-assainissement-et-hygiene-2021-du-07-et-08-decembre-2021/">https://care.mg/ranowash/revue-sectorielle-eau-assainissement-et-hygiene-2021-du-07-et-08-decembre-2021/</a>
15 and 16 December 2021 - Ambohitra - Amoron'i Mania Region	Inter-Regional Fair of Water, Sanitation and Hygiene AMORON'I MANIA	<a href="https://care.mg/ranowash/foire-inter-regionale-de-leau-de-l'assainissement-et-de-l'hygiene-pour-les-regions-amoroni-mania-haute-matsiatra-et-fitovinany-region-amoroni-mania/">https://care.mg/ranowash/foire-inter-regionale-de-leau-de-l'assainissement-et-de-l'hygiene-pour-les-regions-amoroni-mania-haute-matsiatra-et-fitovinany-region-amoroni-mania/</a>
December 16 and 17, 2021 - Toamasina - Atsinanana Region	"Regional Forum on the Water, Sanitation and Hygiene Market" for Atsinanana Region	<a href="https://care.mg/ranowash/forum-sur-le-marche-de-leau-de-l'assainissement-et-de-l'hygiene-region-atsinanana/">https://care.mg/ranowash/forum-sur-le-marche-de-leau-de-l'assainissement-et-de-l'hygiene-region-atsinanana/</a>
December 21 and 22, 2021 - Ambatondrazaka - Alaotra Mangoro Region	Water, Sanitation and Hygiene Fair for the Alaotra Mangoro Region	<a href="https://care.mg/ranowash/foire-inter-regionale-de-leau-de-l'assainissement-et-de-l'hygiene-pour-la-region-alaotra-mangoro/">https://care.mg/ranowash/foire-inter-regionale-de-leau-de-l'assainissement-et-de-l'hygiene-pour-la-region-alaotra-mangoro/</a>

## Q2

The Communication team developed communication materials which helped disseminate and publicize the RANO WASH project’s results and achievements. This ensures visibility of the project’s technical and capacity building interventions. For instance, communications activities include, but are not limited to, field descent, online campaigns on social media, event and fair organizations with the Ministry of Water, Sanitation and Hygiene; producing success stories, developing short excerpts and publishing them on the RANO WASH website and other social media platforms (YouTube, Twitter), producing reports, email marketing to other entities and partners.

For Q2. FY 22, the Communication team participated in regional and national activities. To cite a few, the Team attended and covered International Women’s Day and World Water Day.

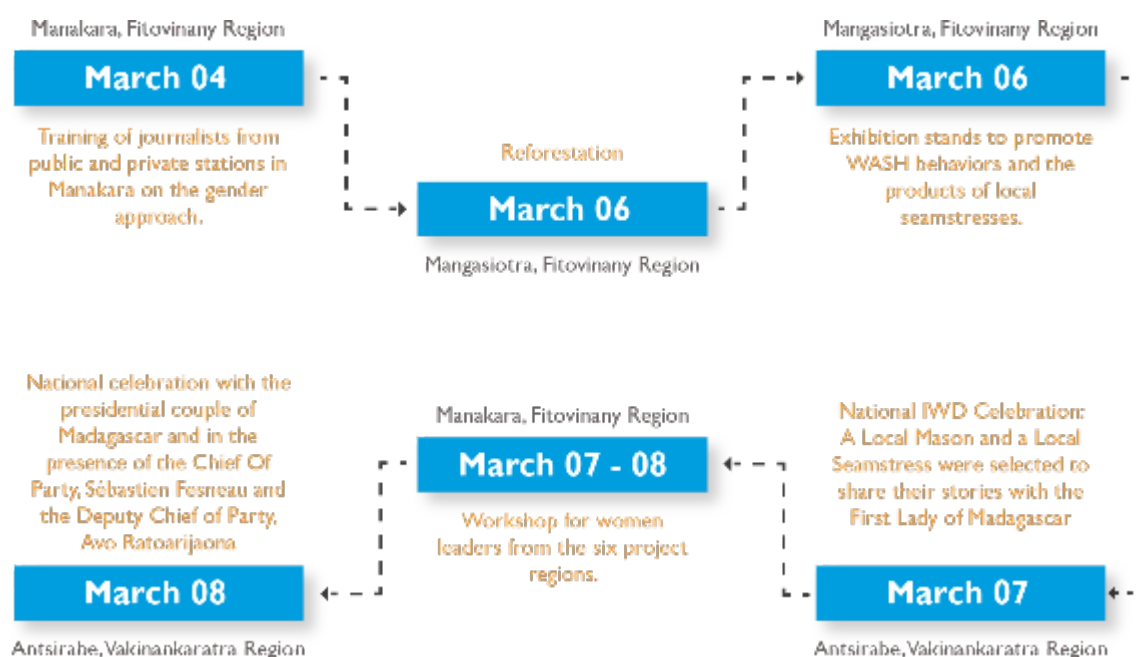




## International Women’s Day in March 2022

This year, the celebration of the International Women’s Day was spread over three days and took place as follows

Date	Location	Activity	Roles of the communication team
March 04	Manakara, Vatovavy Fitovinany Region	Training of journalists from public and private stations in Manakara on the gender approach.	The communication team attended this training to reinforce gender knowledge.
March 06	Mangasiotra, Vatovavy Fitovinany Region	Reforestation	Coverage and participation in reforestation
March 06	Mangasiotra, Vatovavy Fitovinany Region	Exhibition stand to promote WASH behaviors and the products of local seamstresses.	Installation of visibility materials Coverage of the event
March 07	Antsirabe, Vakinankaratra Region	National IWD Celebration: A Local Mason and a Local Seamstress were selected to share their stories with the First Lady of Madagascar	Preparation of visuals during the testimonies of our actors Photo coverage
March 07 - March 08	Manakara, Vatovavy Fitovinany Region	Workshop for women leaders from the six project regions.	Photographic coverage and production of a video on the women leaders
March 08	Antsirabe, Vakinankaratra Region	National celebration with the presidential couple of Madagascar and in the presence of the Chief Of Party, Sébastien Fesneau and the Deputy Chief of Party, Avo Ratoarijaona	The communication department provided the protocol service





For International Women’s Day, the USAID Madagascar Facebook page and Twitter published one of the success stories collected by the Communication team. The publication tells the story of RASOMANANA Sina, the first woman mason in Brickaville was very well received. Two publications were made by USAID Madagascar, one in French and Malagasy, and the second in English.

The French and Malagasy publication generated over **8.5k likes, +350 comments and 44 shares**.

Similarly, the English publication generated over **3.2k likes**.

RASOAMANANA Sina’s inspiring story is one of the most commented and has generated the most reaction to date on USAID Madagascar publications.



RANO WASH / Photo : Dahiry Razaka

## **World Water Day in March 2022**

The national celebration of World Water Day was held in Manakara from March 21 to 23. The RANO WASH project, funded by USAID, played an important role in the national celebration of World Water Day.

### **Theme:«Groundwater Development»**

#### **March 21, 2022: Tam-tam animation**

A tam-tam animation around the city of Manakara was conducted to open the celebration. Stops were made in crowded places and many partners (RANO WASH, UNICEF, ACCESS) of the Ministry of Water, Sanitation and Hygiene organized a radio crochet. WASH-related gifts such as cleaning products were distributed to the winners.

#### **March 22, 2022: Official Ceremony - Conference-Debate - Infrastructure Visit -**

In the square of Manakara City Hall, government officials such as the Minister of Water, the Governor of the Equatorial Region, the Prefect and representatives of all stakeholders held their speeches on the theme «Groundwater Development».

There was also a conference and debate on water and climate change.

The day ended with a visit to the solar pumped drinking water infrastructure in Vohitrindry. The system includes a vertical borehole 25 m deep and a storage tank with a volume of 50 m<sup>3</sup>, the system is co- financed by AFD and USAID through the RANOWASH project.



4,413 people will benefit from drinking water thanks to this infrastructure by 2022 and up to more than 6,000 within 20 years.

During the visit, the Minister of Water and Hygiene, FIDINIAVO RAVOKATRA emphasized in his speech that the USAID RANO project assists the government in the realization of Velirano No. 2 of the Malagasy government «drinking water for all».

During the event, the communication team made a live broadcast on the Care Facebook network. The objective is to share with everyone, especially with those who were not on the premises, the content of the celebration.



### March 23, 2022: Reforestation activities

The national celebration of WED was closed by a reforestation session in Ambambogna, rural commune of Ambila, district of Manakara, Fitovinany region. 600 cinnamon seedlings were grown there to contribute to the implementation of the «Green Madagascar» challenge and aims to protect rice fields but also to develop the economy.







### **Support to the Ministry of Water, Sanitation and Hygiene (MEAH)**

As the RANO WASH project aims to involve public actors, it serves as a support to the Ministry of Water, Sanitation and Hygiene.

During the celebration of World Water Day (WWD), we improved the design of the posters and invitations.

We printed visual aids such as tarpaulins, posters, the WED roll up and banners.

In addition, we sent a delegation from the Ministry of Water, Sanitation and Hygiene (MEAH) to participate in the XIVth World Water Forum in Dakar.

We also developed an advocacy on the WASH sector in Madagascar

## OTHER EVENTS DURING Q2 FY22

### January 31st, 2022 Provisional reception of the new drinking water supply system in Ivato Centre, Amoron'i Mania Region

The provisional reception of the new drinking water supply system in the commune of Ivato Centre, Ambohitra district, Amoron'i Mania region took place on 31 January 2022.

The system will be able to serve 3,700 people. It is composed of two catchment dams: in Sahavondronina with a surface area of 78m<sup>2</sup>, and Ankazontana with a surface area of 75m<sup>2</sup>, a treatment plant of 49m<sup>2</sup>, 2 head tanks and a buffer tank of 25m<sup>3</sup> each. The population of the Ivato center can hope to have access to drinking water from now on. Nearly 178 people have already expressed their wish to have access to a social connection or a private connection until today. A monobloc in the chief town of the commune and a sanitary block at the level of CSB II have also been built to improve the life of the inhabitants.

[Provisional reception of the new drinking water supply system in Ivato Centre, Amoron'i Mania Region - RANO WASH \(care.mg\)](#)





RANO WASH / Photos : Dahery Razaka

### **February 1st, 2021: Multipurpose reforestation on the AmindrasandamboAndrainjato site - Haute Matsiatra Region**

A reforestation session was carried out on February 1st at the Amindrasandambo site, Andrainjato commune, Haute Matsiatra region. Its success is due to the collaboration between public and private entities.

The protection of watersheds is the major objective of this action. And this, for an integrated management of water resources and to meet environmental compliance. At the same time, it contributes to the achievement of «Madagasikara Maitso» (Green Madagascar), a program of the Malagasy government.

The Ministry of Environment and Sustainable Development has granted 7378 eucalyptus and acacia plants.

The February 1st session gathered about 50 participants, mainly members of the village savings and credit association (AVEC). They were able to plant 545 saplings. More than 8,000 young plants should be planted on the Amindrasandambo site by the end of the year.

## February 21st, 2022: Business opportunities in the WASH sector: Field visit with NextA and WeLight in Anosibe Ifody

On February 21, 2022, Nexta and WeLight visited Anosibe Ifody, Moramanga district, Alaotra Mangoro region, on the initiative of the USAID funded RANOWASH project.

NextA is a platform set up by the Axian group in order to develop and support entrepreneurship in Madagascar. Similarly, WeLight provides access to clean energy 24 hours a day in rural areas in Madagascar and especially in Africa by deploying a unique and innovative model of solar mini-grids.

The field visit was an opportunity to learn more about business opportunities in the water, sanitation and hygiene sector. It was also an opportunity to better identify the profiles of managers who have already invested in the sector. WeLight representatives in particular were looking for partnership opportunities with the GICs (Managers Investors Builders).

[Business opportunities in the WASH sector: Field visit with NextA and WeLight in Anosibe Ifody - RANO WASH \(care.mg\)](#)



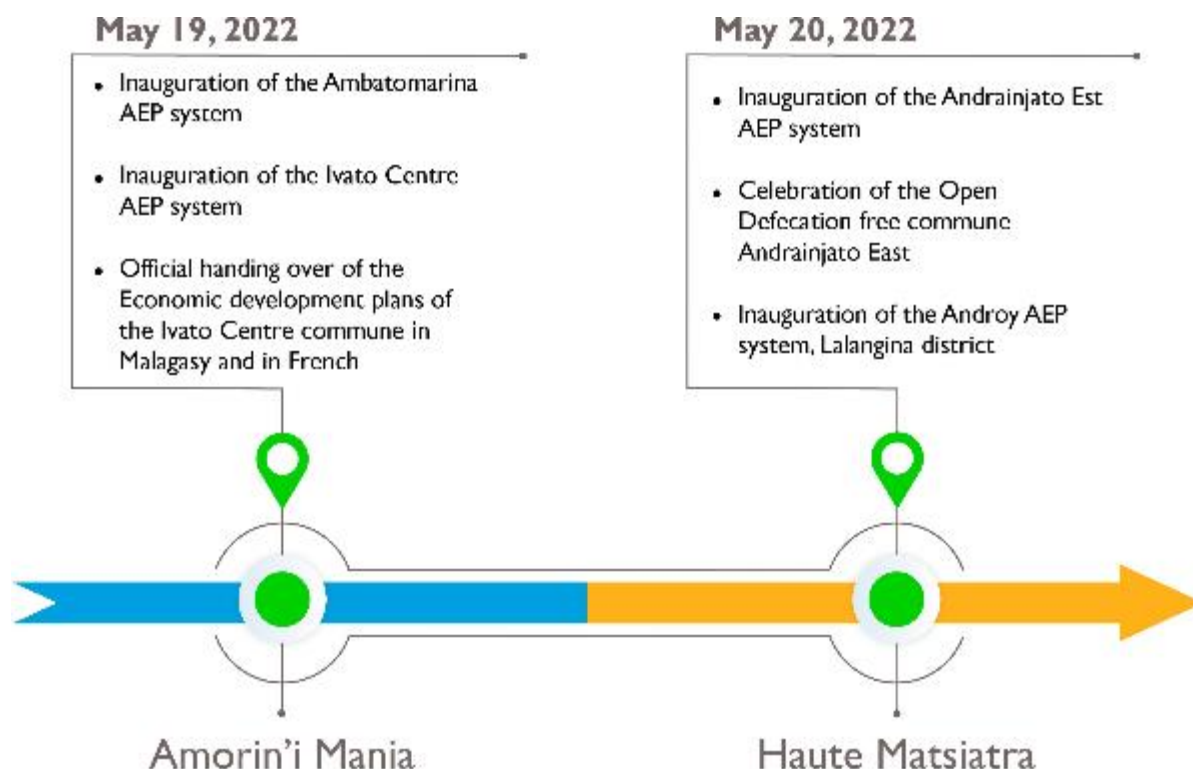
RANO WASH / Photos : Daheiry Razaka Rafenomanana

### Q3

The communication team developed communication materials that helped disseminate and publicize the results and achievements of the RANO WASH project.

This helps ensure the visibility of technical interventions and builds project capacity. For example, communication activities include, but are not limited to, field trip, online social media campaigns, organizing events and fairs with the Ministry of Water, Sanitation and Hygiene; producing success stories, developing short clips and publishing them on the RANO WASH website and other social media platforms (YouTube, Twitter), producing reports, email marketing to other entities and partners.

For Q4. FY22, the communications team participated in regional and national activities. Details include:





photos Dahery Razaka

## FOUR SYSTEMS INAUGURATED IN 2 DAYS AND AN ODF CELEBRATION ATTENDED BY THE MINISTER OF WATER, SANITATION AND HYGIENE

2038

ANDRAINJATO EST



ANDROY



AMBATOMARINA



IVATO CENTRE



This quarter began with a series of short inaugurations. On May 19 and 20, the PCT communication team ensured the smooth running of the inauguration ceremonies of drinking water infrastructures in the communes of Ivato Centre and Ambatomarina, Amoron'i Mania region, and in the communes of Androy and Andrainjato Est, Haute Matsiatra region. On that day, the ODF (open defecation free) celebration in the commune of Andrainjato Est also took place.

### *The main tasks of the communication team in the organization of these events*

#### - Design of invitations and technical sheets

We designed the invitation that was distributed to the invited partner actors and local authorities. Thus, the form containing the technical details of the four systems (Ambatomarina, Ivato Centre, Androy and Andrainjato East) was designed by our team.

Also, the team ensured the creation of a banner for each site, illustrating in bubbles points and in photos the contents and horizons of the system. This support is used to decorate the premises and at the same time as a photobooth.

#### - Pilot of the whole logistics

Since the places for the ceremonies are not presentable (desert), we had to hire service providers for the installation of tents for the officials and the public. These tents decorated the premises and allowed everyone to be in the shade. In addition, the system needed some draping for amenities.

A giant screen was installed in the inauguration square for the projection of visual media during the ceremonies. Among the contents shown on the screen, we can highlight the four videos of the four systems that our team produced.

- **Protocol management**





The four systems inaugurated in two days are located in two regions and four different municipalities. Our team ensured the smooth running of the ceremonies within the planned timing. Each activity carried out was perfectly matched with the protocols of the authorities such as the Ministry of Water, Sanitation and Hygiene as well as the representatives of USAID, the consortium and the other partners.

It was very eventful but also rich in emotions given the success of the events.

**Deliverables**

- **In-house production**

Our team not only prepares the events, we are accountable for each activity and are committed to producing deliverables.

	System video	4	<p>These videos concern the systems inaugurated in the communes of Ivato Centre and Ambatomarina, Amoron'i Mania region and the communes of Androy and ...</p> <p>They illustrate the contents of the systems and the number of people served by the system now and in 2040.</p>	<a href="https://www.youtube.com/">https://www.youtube.com/</a>
	Video summary of events	1	<p>This is a film capturing the key messages and highlights during the entire inauguration (official ceremonies, ribbon cutting, tour of the systems, speeches...)</p>	<a href="https://www.youtube.com/watch?v=GWroh9iC_EY&amp;t=10s">https://www.youtube.com/watch?v=GWroh9iC_EY&amp;t=10s</a>
	Article on the web page	2	<p>These articles report on the inauguration events in the Amoron'i Mania and Haute Matsiatra regions</p>	<a href="https://care.mg/ranowash/amoroni-mania-le-ministere-de-leau-inaugure-deux-systemes-dapprovisionnement-en-eau-pour-environ-12-589-personnes/">https://care.mg/ranowash/amoroni-mania-le-ministere-de-leau-inaugure-deux-systemes-dapprovisionnement-en-eau-pour-environ-12-589-personnes/</a>
	Image bank		<p>... new photos are added in the image bank of RANO WASH</p>	



RANO WASH / Photos : Dahery Razaka

### Other

In addition to the above-mentioned internal (team) productions, partners and the press have also reported on them:

News broadcast	5	<p>Three major channels namely TVM (national channel); Real TV and IBC reported on these events in their news broadcasts. TVM and IBC broadcast 2 different elements. The original elements are in Malagasy and were translated into French by our team to allow French speakers to understand the content.</p>	<p><a href="#">Journal Télévisé TVM - Inauguration AMM</a>  <a href="#">Journal Télévisé TVM - Inauguration HM</a>  <a href="#">Journal Télévisé IBC du 28 Mai 2022 - Inauguration AMM et HM</a>  <a href="https://www.youtube.com/watch?v=Ax_IIZBBEBc">https://www.youtube.com/watch?v=Ax_IIZBBEBc</a>  <a href="https://www.youtube.com/watch?v=nFehIsViuLA">https://www.youtube.com/watch?v=nFehIsViuLA</a></p>
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### - Publication on social networks

Public and private sectors talked about these events on social networks. Among others, we distinguish :

- WaterAid Madagascar
- The Ministry of Water, Sanitation and Hygiene in Madagascar
- The Embassy of the United States in Madagascar
- Orange Actu



Rural Access to New Opportunities in Water, Sanitation, And Hygiene  
 RANO WASH FY2022 Quarter 4 & Annual Report – Annexes

<https://www.facebook.com/groups/204073783022993/permalink/5159351697495152/>

<https://www.facebook.com/meahmadagascar/posts/pfbid02XuLQMjd4dtyx-QHX6Dn9FqmPqWakXuzGG3A2wYe-Nen7cEpCXDRgWGYgR5peWRHK3PI>



<https://mg.usembassy.gov/u-s-government-improves-access-to-clean-water-and-sanitation>



<https://www.facebook.com/orangeactu/photos/a.138058993221150/3176126962657429/?type=3>

<https://www.facebook.com/meahmadagascar/posts/pfbid026anaLo4Z1gIe-duYmdTnYKhUrXzCTD85VetzvRgo-7hAB5JkYrCs2gm1UCsvyEXPZyl>



<https://www.facebook.com/meahmadagascar/posts/pfbid02R2pxVmbT1z9n-NoLE46jmPxlw4CwWUht7RhVcSD-NRWSzTthDKwjTUFhbLd5VY92YI>

Articles in the newspaper :

<https://depeche-taratra.mg/33199-2/>



Press release from the American Embassy:

<https://mg.usembassy.gov/u-s-government-improves-access-to->

### Kaominina Andrainjato Atsinanana Afaka amin'ny fangarena ankalamanjana ny mponina

Nankasitrahana amin'ny ezaka ratany niala amin'ny fangarena ankalamanjana ireo fokontany dimy ao amin'ny kaominina Andrainjato. Natao ny famentana amin'ny fahatongavan'izany ny mponina ka resy fahatany izy ireo.

Namorina lava-piringa manora-penitra isan-tokantrano ny mponina. Miasa rano ny lavaka sy ny toerana asiana ny taratasy avy hofafana. Tanjona ny tsy fahasitahana ny foto.

Nisy ny fandraisan'anjara-ny RanoWash tamin'ny fanofanana ny komity natongana hanamboatra lava-piringa manora-penitra sy madio. Notokanina koa ny fotodrafitra famatsian-dra-

Ireo fokontany afaka amin'ny fangarena an-kalamanjana.

no ao amin'ny kaominina Andrainjato Atsinanana. Misy toby fangarona-dra- no sy ny fanadiovan-dra- no ary fitarihan-dra- no, tonga avy an-tokantrano ny rano madio ary misitraka izany koa ny sekoly...

Tandontsany toy ny anakandriamaso ny sabandriaka misy ny fotodrafitra mba tsy hifanitra ny rano. Niaraha tamin'ny RanoWash, Care, CRS, Wateraid, Bushproof ary Sandandrono ny fiantaterahana ny fotodrafitra momba ny famatsian-dra- no amin'ny faritra Maziara Ambony

Tatiana A

### FAHADIOVANA SY FIDIOVANA Miasa amin'ny kaominina 250 ny tetikasa RanoWash

Miasa amin'ny faritra Vatoavavy, Fivoavavy, Maziara Ambony, Amoron'i Mania, Vakinankaratra, Alaotra Mangoro ary Atsinanana, anatin'ny kaominina 250 ny tetikasa RanoWash. "Fantenana ara- fanompo ny fahafanovan'ny kaominina amin'ny famampiana ny olona hahazo rano fisotro madio ny tetikasa Rano Wash", hoy Ratoarijaona Avo. Mita vonona miara-miara amin'ny ao an-toerana koa ny kaominina ahafahana mitanina izany fotodrafitra izany. Tantaraizany sampan'asa dimy, ahiana ny Care International, WaterAid, CRS ary ny sehatra ny miasa rano : Sandandrono sy ny BushProof ny tetikasa. Ho an'ny faritra

Ireo fampandrianakany samany, hahita'ny tetikasa RanoWash.

Miasa rano, ny Care International, no manamiana ny manatantana ny ONG Miazimisa raha manao ny pakady tekinika ny Bush Pro. Fomba-miasa amin'ny zandri- maso ny Rano izany, Maziara

sarany ny vahoaka amin'ny fisitrahana ny rano ahafahana mikojakoja ny fotodrafitra mba hahatana.

Ho moodely ahafahan'ny sehatra tsy miankina mitondra vola ho fanasariana fotodrafitra no atao'ny tetikasa RanoWash. Mihoatra ny 40 ny fotodrafitra famatsiana rano madio efa nitsangana.

"Loharano any an-tandromboina ho an'ny toerana samany ary any ambanin'ny any ny fampandrian'ny sehatra" ny fiantaterahana mba, hoy ny talen'ny Bush-Proof RanoWash Serge. Iaraha amin'ny USAID ny fampandrianana ny fotodrafitra.

Tatiana A



WASH / Photos: Dahery Razaka

## CELEBRATION OF THE JMHM

The international community commemorates every May 28 a World Menstrual Hygiene Day. Thus, Madagascar joined the whole world to celebrate this day under the theme «We commit ourselves to support young girls and women to manage their menstruation».

### Course of the celebration

This year, the Ministry of Water, Sanitation and Hygiene, in collaboration with the Ministry of Public Health and the Ministry of National Education and with the support of its partners, celebrated World Menstrual Hygiene Day (WMD) on May 26, 27 and 28, 2022 in the Analanjirofo Region. Below are the activities carried out for the celebration of the WMD:



### Day 1 (May 25, 2022):

- Team building for departmental teams
- Meeting to finalize the preparation of the event: regional technical team, core team and partners (including the USAID-funded RANO WASH project);
- Courtesy visits to the Governor and regional directorates (DREAH, DRSP, DREN Analanjirofo);
- Animation on the local TVM Analanjirofo channel focused on the announcement of the event and the promotion of Menstrual Hygiene and Health Management;
- Raising awareness about GHSM through the program «Feon’ny Fahasalamana», in collaboration with the Ministry of Public Health.

### Day 2 (May 26, 2022):

Exchange visits with the VOAMAMI Group: Fokontany Mahavanona, CR Ambodimanga II; the youth association «Woman’s Club», Lycée Ampasina Maningory; the MAVILA association, CR Mahambo; the women’s group in the Fokontany Ambinany Iazafo, CR Mahambo.



### Day 3 (May 27, 2022):

- Provision of Hygiene Kits to the association of disabled women; to women in the Central House of Fénérive Est; and to health personnel and patients at the CSB II Fénérive Est;
- Sketch and slam contest, radio contest, with various animations;
- Tam tam mobile on the holding of the event.



Photos Dahery Razaka

**Day 4 (May 28, 2022):**

- Great March honored by the presence of the Minister of EAH;
- Official ceremony related to the national celebration of the WFD: series of speeches, official launch of the Ikal’Lio Game (UNICEF), visit of the stands and prize-giving.

We participated intensively in all these celebratory activities. Also, the RANO WASH project, funded by USAID, was among the officials of the event.



RANO WASH / Photos Dahery Razaka

## Our roles in the celebration

To note that the RANO WASH project financed by USAID intervenes in the fields of Water, Sanitation and Hygiene, it is naturally interested in the menstrual health of girls and women. Thus, we have contributed to the realization of the celebration programs. Here are our roles:

### - Reception of the second preparation meeting

Three preparatory meetings were held before the event. These meetings mainly allowed to jointly identify the national theme of the WMBD with the related messages, to define together the activities to be carried out and to determine the contributions of each entity concerned in the realization of the celebration.

The RANO WASH project agreed to host the second meeting at the Project Team Coordination (PCT) office in La City Ivandry. Apart from attending the meeting itself, the Communication Team was able to organize a snack for the break.



### - Evaluation of the towel making contest and awarding of sewing machines to the winners

The RANO WASH project, financed by USAID, offered sewing machines to the winners of the washable sanitary napkin contest. The winners are «Women's Club», an association of students from Ampasina Maningory High School and a village savings and credit association (AVEC) in Analanjirifo.

The RANO WASH team was also part of the jury for this competition.

### - Coverage of all the activities of the event

The communications team participated in all of the WWD celebration activities. In addition, we marked this celebration by providing our imaging skills (photo and video coverage).

The video coverage of the event is one of our contributions to the realization of this activity. The video produced will be shared with the ministries and partners involved in the celebration. Thus, it will be broadcast by the national channel in the program co-produced by the Ministry of Water, Sanitation and Hygiene.

## Deliverables

As part of the WDW celebration, we were able to produce:

- A storytelling video of the winning group of the sketch contest
- A clip of a local artist for a WASH awareness song
- A video tutorial for making washable sanitary napkins
- A video coverage of the entire WDW celebration

## Miscellaneous :

Mr. Minister of Water, Sanitation and Hygiene Fidiniavo RAVOKATRA with his collaborators, visited the infrastructures of drinking water supply of Foulpointe, Commune Mahavelona, District Toamasina II, Region Atsinanana, which are in the offices of Sandandrano before joining Fénérive Est for the JMHM.

Qualified as a «school site» within RANO WASH, it is a laboratory where SANDANDRANO teaches the techniques of construction, management and operation of a water system in rural areas.

The technology developed for ferrocement hydraulic structures and drinking water treatment was a revolution. Indeed, the main problem of the waters of the eastern coast of the island is the excessive presence of iron. The treatment unit designed by SANDANDRANO consists in eliminating all the harmful components. The duplication of this system in the other regions of Madagascar is possible.



- Participation in the SPE exchange (PSI CRS stand)





## Q3

### INAUGURATION OF WATER SUPPLY INFRASTRUCTURES

in two regions simultaneously: on Andonabe and on Andrainjato Ambalavao on August 12, 2022 (field trip)

**Andonabe:** A system co-financed by USAID and AFD was inaugurated by local authorities and the Director of Cabinet of MEAH, representing the Minister

**Andrainjato Ambalavao:** Inaugurated by the Minister in person with the Deputy of Ambalavao and the Governor of Fianarantsoa

The communication team organized the two events in collaboration with the regional teams, from coordination, logistics (installation and uninstallation with the log team) to press management.

See link :<https://care.mg/ranowash/le-ministre-de-leau-de-lassainissement-et-de-lassainissement-a-inaugure-deux-systeme-dapprovisionnement-en-eau-potable/>

#### Media :

<https://care.mg/ranowash/journal-tv-inaugurations-de-systeme-dadduction-deau-potable-sur-haute- matsiatra/>

[https://www.youtube.com/watch?v=Ax\\_IIZBBEbc&list=PLGmapP9y2A\\_evtjpcO\\_6JQoKwqUNDJ4P-](https://www.youtube.com/watch?v=Ax_IIZBBEbc&list=PLGmapP9y2A_evtjpcO_6JQoKwqUNDJ4P-)



Here are the different publications about these events :



Ministère de l'Eau, de l'Assainissement et de l'Hygiène de Madagascar

16 août · 🌐

...

RANO FISOTRO MADIO HOAN'NY MPONINA AO AMIN'NY KAOMININA ANDONABE FARITRA VATOVAVY SY NY KAOMININA ANDRAINJATO, FARITRA MATSIATRA AMBONY | 12 Aogositra 2022

Notokanan'Andriamatoa Fidiniavo RAVOKATRA, Ministry ny Rano, Fanadiavana sy Fidiovana ny faran'ny herinandro teo, faha 12 aogositra 2022 ny fotodrafitrasa ho famatsiana rano fisotro madio ao amin'ny Kaominina Andonabe Faritra Vatovavy sy ao amin'ny Kaominina Andrainjato, Faritra Matsiatra Ambony. Nanotrona azy tamin'iza... Voir plus

Voir la traduction





Actualités

Politique Société Economie Culture Sport Photos Pha



**Un système d'adduction en eau potable au bénéfice de 8 000 personnes**

17 Aug 2022

Selon le rapport de mise à jour de mise à jour du Plan sectoriel de l'Eau, de l'Assainissement et de l'Hygiène, un faible taux d'accès à l'eau potable est noté dans le pays. Seuils 24 % de la population ont accès à l'eau potable contre 30 % pour les infrastructures d'assainissement de base.

Madagascar cherche ainsi à améliorer et sécuriser la production d'eau dans le pays en menant divers projets avec ses partenaires.

La Commune d'Andonabe dans la Région Vatovavy, et celle d'Andranjato dans la Région Haute Matsiatra ont été dotées de nouvelles infrastructures d'eau améliorées comprenant de nouveaux barrages pour la collecte de l'eau, des stations de traitement, des réservoirs, des citernes et des conduites. Ces infrastructures comprennent également des douches publiques, des latrines, des stations de lavage des mains, des points d'eau et des canalisations pour relier les systèmes d'eau aux écoles et aux établissements de santé. Elles ont été inaugurées récemment par Fidiavo Rakotra, Ministre de l'Eau, de l'Assainissement et de l'Hygiène, en présence des autorités des Régions et les partenaires techniques et financiers et bailleurs USAID.

Ce système d'adduction en eau potable est destiné à répondre aux besoins quotidiens de plus de 8 000 personnes dans ces deux communes pour résoudre une situation précaire en matière d'approvisionnement en eau potable.

Le Gouvernement malgache, à travers le Ministère de l'Eau, de l'Assainissement et de l'Hygiène, en partenariat avec le projet rural RANO WASH et l'USAID, a mis en place ces nouveaux systèmes d'adduction en eau potable, pour améliorer la santé et le bien-être des personnes issues des deux communes. Ces dernières font partie de 250 municipalités soutenues par l'USAID dans le cadre de son projet d'accès aux nouvelles opportunités en matière d'eau et d'assainissement en milieu rural.

Dans la commune d'Andonabe, la célébration comprenait également l'attribution du statut de Fin à la dédication à l'air libre.

fin

USAID Madagascar  
 17 août

Rano fisotro madio!

Clone maherin'ny 8.000 avy ao amin'ny kaominina Andonabe ao amin'ny Faritra Vatovavy sy Andranjato ao amin'ny Faritra Matsiatra Ambony no hisitraka rano fisotro madio.

Rafi-pamokarana rano madio vaovao sy nohatsarana no namboarina tamin'ny alalan'ny toekasa RANO WASH, izay vatsian'ny USAID vole ary tanterahin'ny CARE International Madagascar miaraka amin'ny mpiara-miombon'antoka avy amin'ny tanjaka sy ny setitra by miankina anisan'izany ny Minis... Voir plus

Voir la traduction



USAID Madagascar  
 @USAIDMadagascar

8,000 people in central and southeastern #Madagascar will now access #cleanwater. We work with @CAREMadagascar and its partners to build #water infrastructure to the most underserved areas: [bit.ly/3Pw6CTt](https://bit.ly/3Pw6CTt)

Traduire le Tweet



## CAPITALIZATION SEMINAR OF THE RANO WASH PROJECT

**16/09/2022** : field visit and installation of equipment (PANORAMA)

**19/09/2022** : Hardware installation and testing

**20/09/2022 – 22/09/2022** : Assistance with logistics during the seminar:

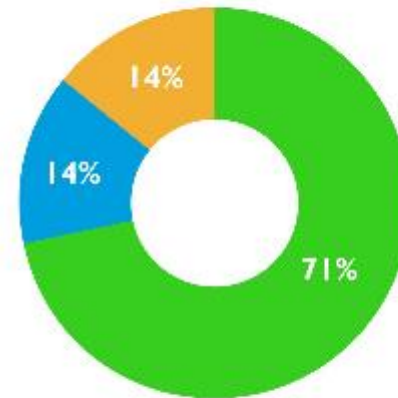
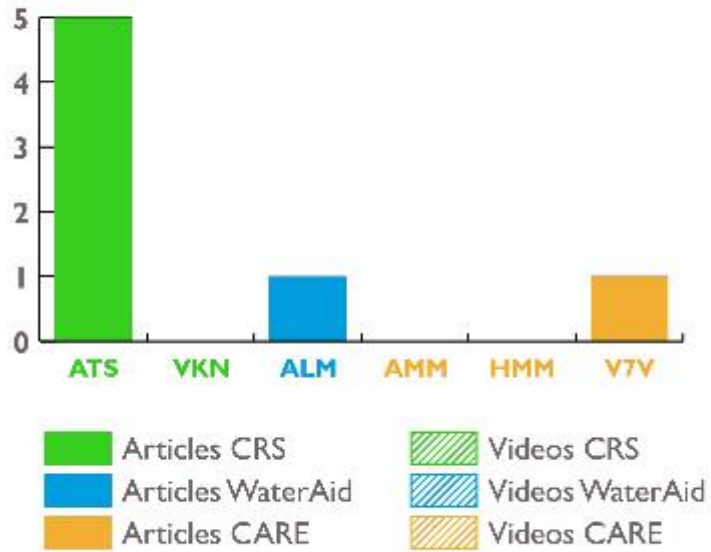
- Ensured the smooth running of the seminar
- Installation of materials
- Manage the projection of presentations (assist participants in case of difficulties during their presentations)
- Design of slides for participants
- Support on all logistical levels throughout the seminar
- Provide photo and video coverage during the seminar

## LIST OF THE COMMUNICATION TEAM'S FIELD TRIPS (FY22 - Q1)

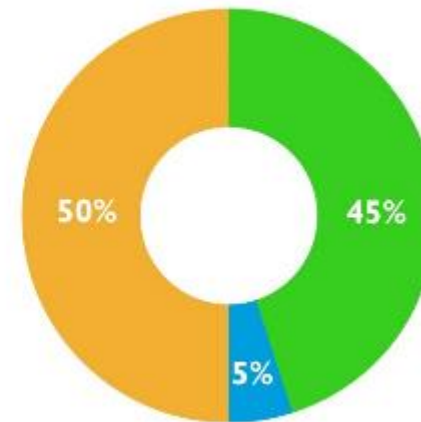
Most of the missions carried out by the communication team for FY22 Q1 focused on the WASH forums preparation. Some missions, for example, were aimed at producing promotional videos for the communes. Other missions were for the elaboration of communal files. And finally, other missions for the preliminary organization of the different forums or the photo, video, and media coverage.

DATE	OBJECTIVES	REGION
October 14, 2021 - October 20, 2021	«Collection of Success Stories : <ul style="list-style-type: none"> <li>• Antanifotsy - Antsirabe</li> <li>• Mahaiza Ambohimiarivo Soavina»         </li></ul>	Vakinankaratra Region
01 November 2021 - 06 November 2021	«Inter-Regional Forum on the Water, Sanitation and Hygiene Market (Antsirabe) Drinking water site visit (Soanindrariny) Conference with the private sector». Inauguration of water infrastructure (Ambohitsimanova)	Vakinankaratra Region
November 29, 2021 - November 05, 2021	<ul style="list-style-type: none"> <li>• Consecration ODF Commune Kianjandrakefina</li> <li>• World Toilet Day Celebration (Ambositra)</li> </ul>	Amoron'i Mania Region
06 December 2021 - 10 December 2021	«Workshop of exchanges on the progress of committed men (Manakara)»	Vatovavy Fitovinany Region
07 December 2021 - 12 December 2021	Visit and design of communal sheet with real photo and video presentation (Fetraomby, Andranobolaha, Foulepointe)	Atsinanana Region
14 December 2021 - 17 December 2021	Inter-Regional Fair on Water, Sanitation and Hygiene (Ambositra)	Amoron'i Mania Region
20 December 2021 - 23 December 2021	Inter-Regional Fair on Water, Sanitation and Hygiene	Alaotra Mangoro Region

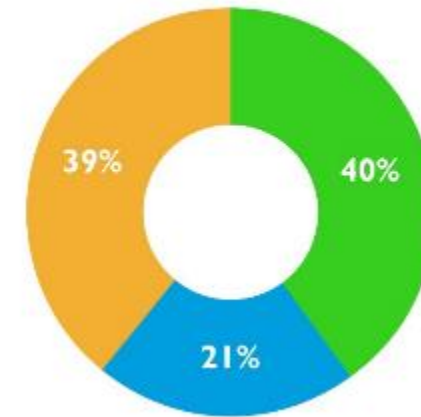
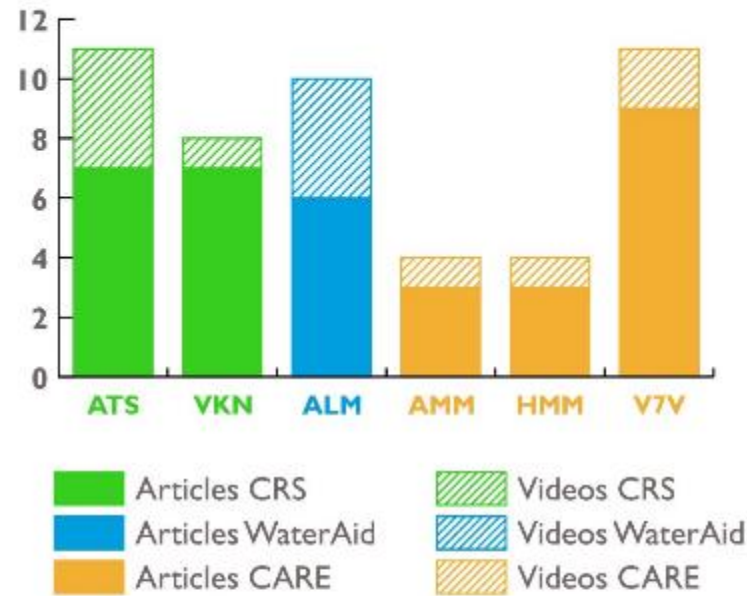
## Success Stories et Vidéos (FY18)



## Success Stories et Vidéos (FY19)

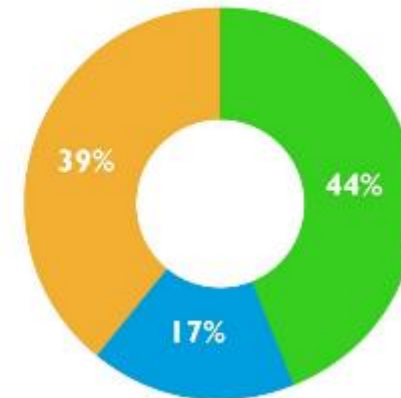
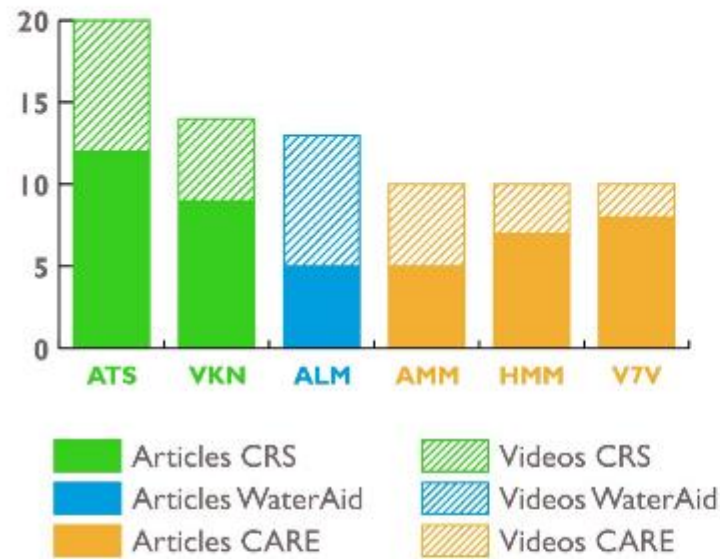


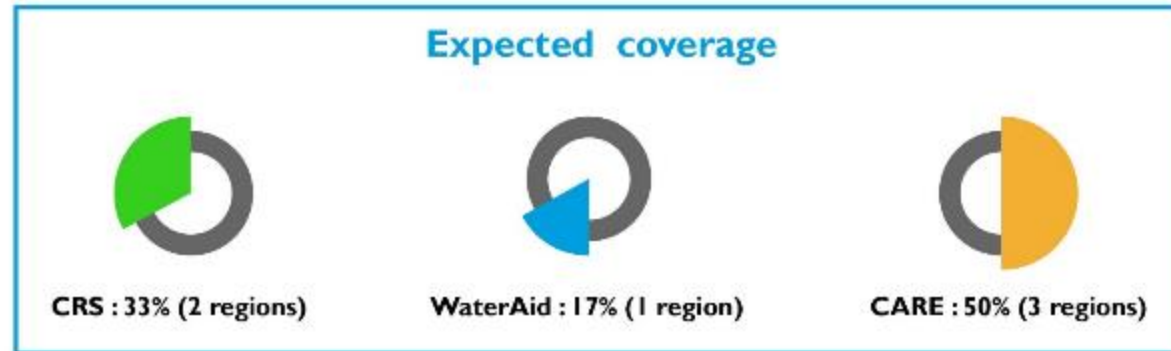
## Success Stories et Vidéos (FY20)



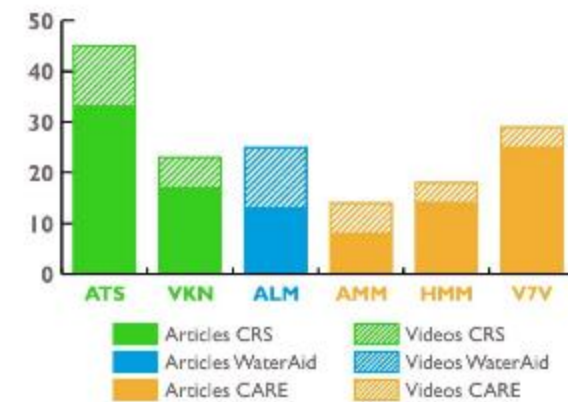
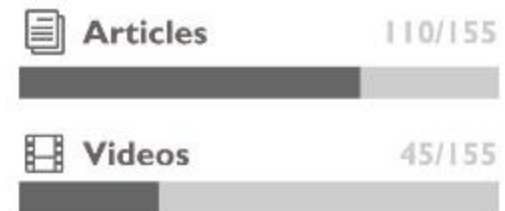
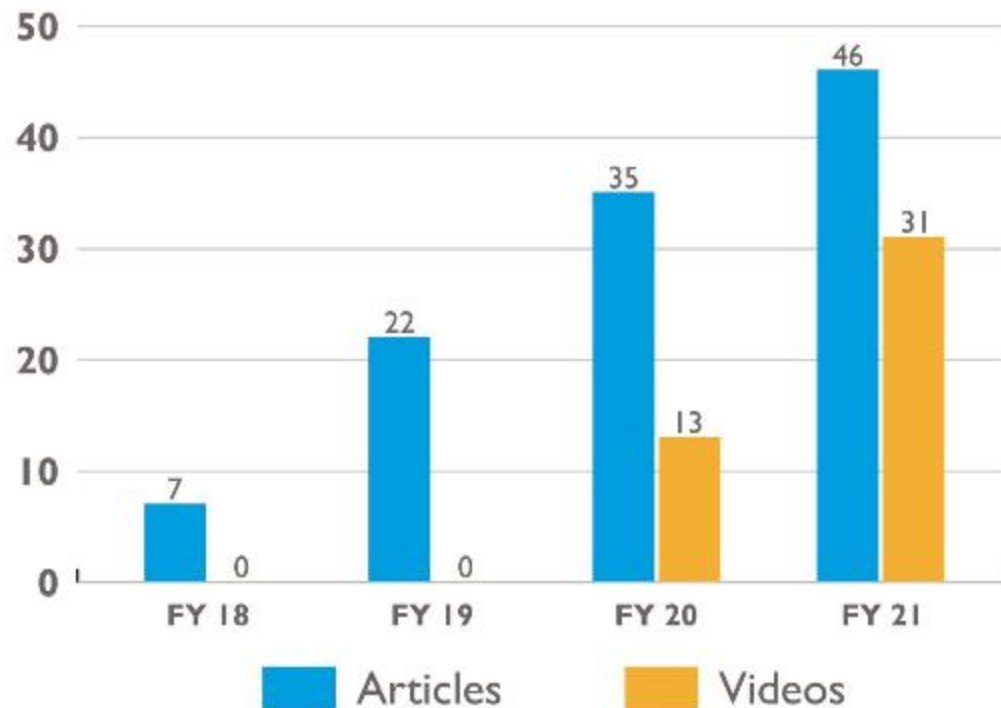


## Success Stories et Vidéos (FY21)



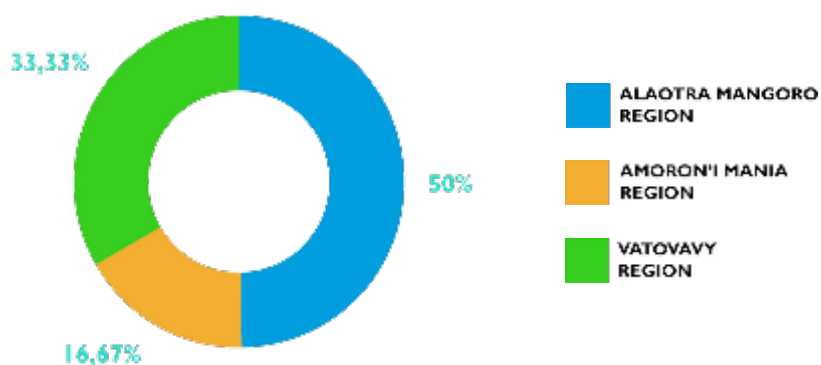


## Total (FY18 - FY 21)



## LIST OF SUCCESS STORIES COLLECTED IN FY 22 Q2

Title	Region
<b>ONJA, a proud village and relay agent</b>	Alaotra Mangoro
<b>JONAS, a local mason who makes a living by building latrines.</b>	Alaotra Mangoro
<b>VSLA FANANTENANA, a large investor in Water, Hygiene and Sanitation</b>	Alaotra Mangoro
<b>RASTA:A local mason who built an inclusive sanitary block</b>	Vatovavy
<b>RAKOTONINDRINA VOLAFARIVO : A woman with reduced mobility but autonomous and leader at the same time</b>	Amoron'i Mania
<b>TAHINJANAHARY HORTENSIA : A young minor who finances her own studies through her membership in the savings and loan group of her village</b>	Vatovavy



H / Photo : Dahery Razaka

Title	Region
<b>Agent relais AVEC :A job that makes everyone progress</b>	Alaotra Mangoro
<b>A network of 11 masons entrepreneurs created thanks to the promotion of «kabone mandamina</b>	Fitovinany

## VIDEOS CREATED DURING FY 22

### Q2

Video title	Region
<b>Tsarasaotra Public Primary School</b>	Amoron'i Mania
<b>Drinking water supply system Vohitrindry</b>	Fitovinany
<b>UNDER DEVELOPMENT</b>	
<b>Drinking water supply system in Andonabe</b>	Vatovavy
<b>Model household</b>	Fitovinany
<b>VSLA Fanantenana Contest</b>	Alaotra Mangoro

### Q3

Video title	Region
<b>Zivano's WASH awareness clip</b>	Atsinanana
<b>Andonabe's infrastructure</b>	Vatovavy
<b>Hightlight of Infrastructure Inauguration</b>	HM,AMM
<b>Washable sanitary napkin tutorial</b>	Atsinanana

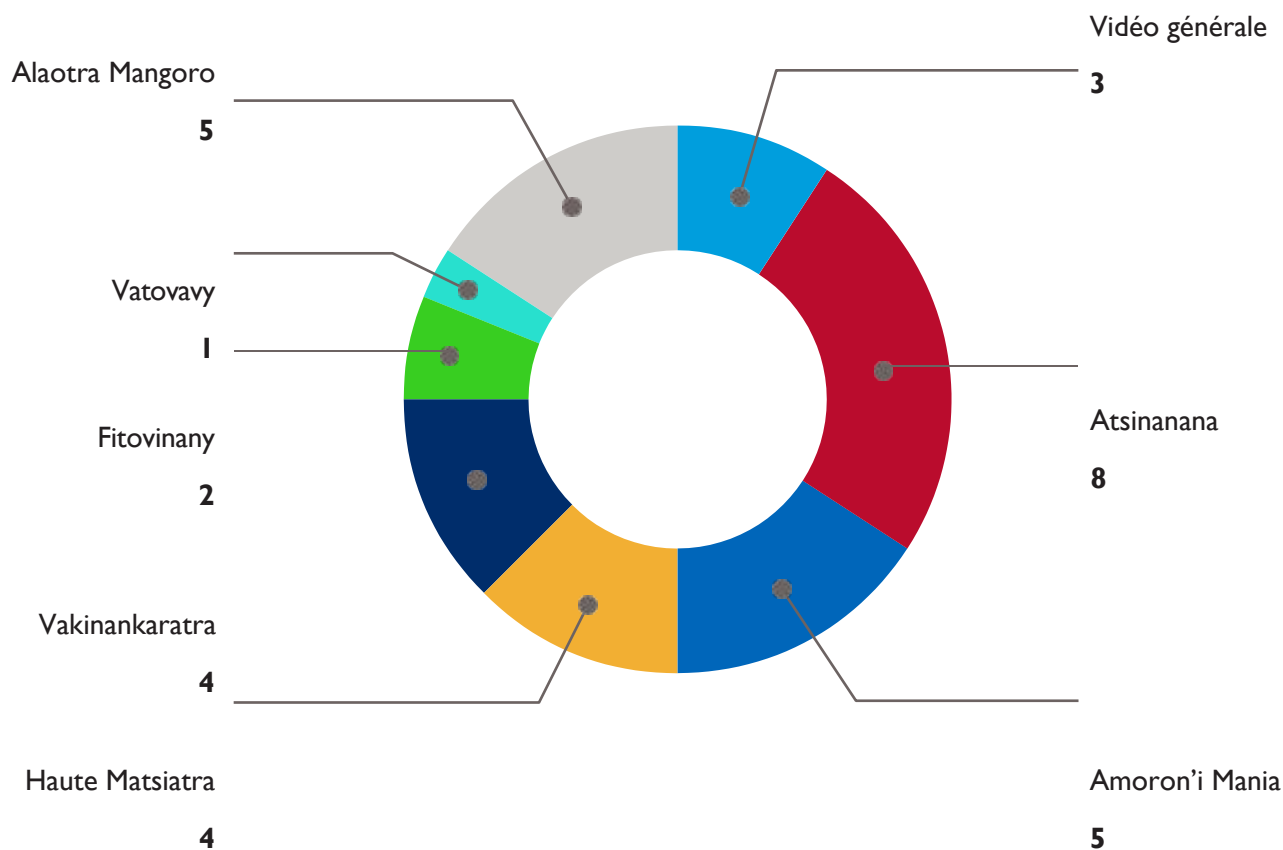


## Q4

Video title	Region
Tuto salaka women's club Fenerive Est	Atsinanana
Jingle Rano Wash	-
Video VSLA Andrianjato Ambalavao	Haute Matsiatra
naVideo success CL Lucie	Atsinanana
Video présentation Rano Wash	-
Video Sketch JMHM Lycée Fenerive Est	Atsinanana
Commune ANDRANOBOLAHA	Atsinanana
Commune Foulpointe « Assainissement »	Atsinanana
Commune Fetraomby	Atsinanana
Commune FANANDRANA	Atsinanana
VOAMAMI Fanantenana	Alaotra Mangoro
Commune Ambomiarivo	Vakinankaratra
Commune Antanifotsy	Vakinankaratra
Commune Soavina	Vakinankaratra
Commune Ambojanahary	Alaotra Mangoro
Commune Ambohivory	Alaotra Mangoro
Commune Vohitsara	Alaotra Mangoro
Infrastructures Ambatomarina	Amoron'i Mania
Infrastructures Ivato Centre	Amoron'i Mania
Infrastructures Andrainjato Est	Haute Matsiatra
Infrastructures Androy	Haute Matsiatra

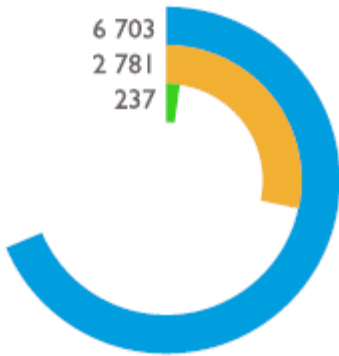


Video title	Region
Infrastructures Andrainjato Centre	Haute Matsiatra
Infrastructures Andonabe	Vatovavy
Infrastructures Ambohitsimanova	Vakinankaratra
Infrastructures Vohitsindry	Fitovinany
EPP Tsarasaotra	Amoron'i Mania
Infrastructures Ambila Lemaintso	Atsinanana
Vola : « Couturière local »	Amoron'i Mania
Commune Ranomalnty ODF	Alaotra Mangoro
Ménage modèle Vohitsindry	Fitovinany
Le Métier WASH transforme la vie des femmes et des filles en monde rural	-
Infrastructures Ilaka Centre	Amoron'i Mania



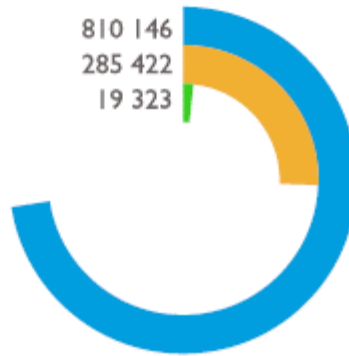
# WEBSITE

## Clics



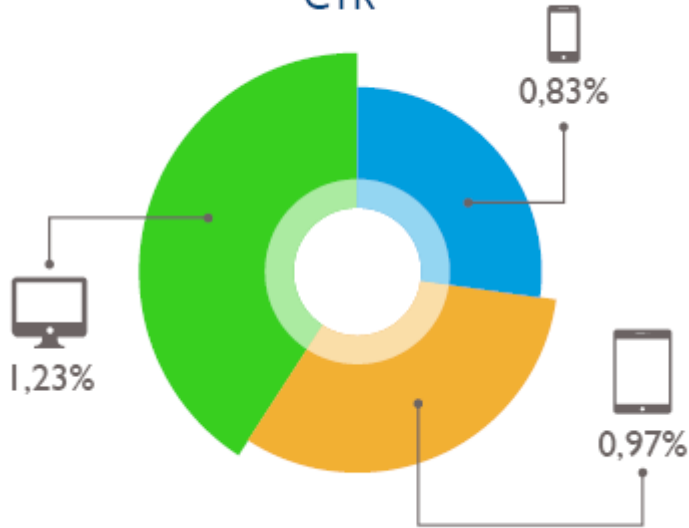
● Mobile ● Ordinateur ● Tablette

## Impression

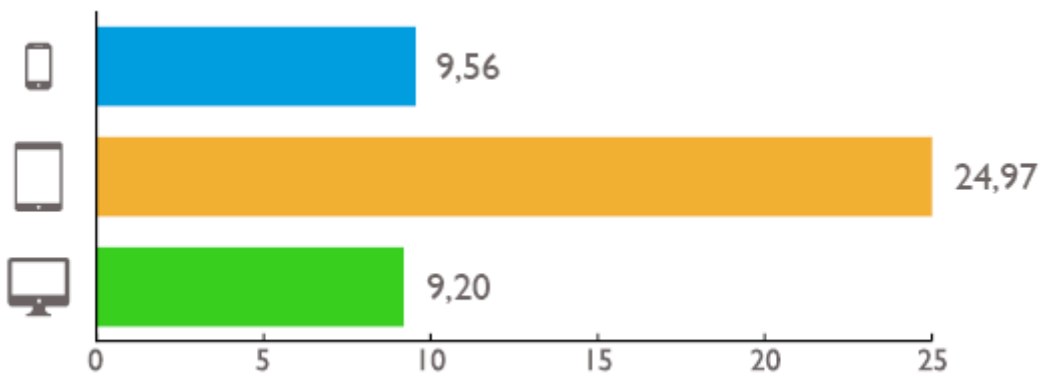


● Mobile ● Ordinateur ● Tablette

## CTR



## Position



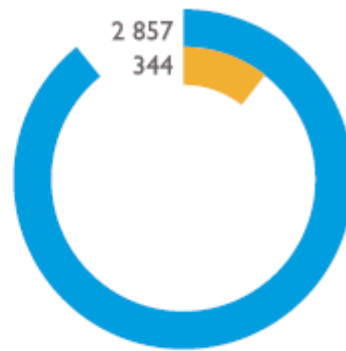
## APPEARANCE IN SEARCH RESULTS

### Clics



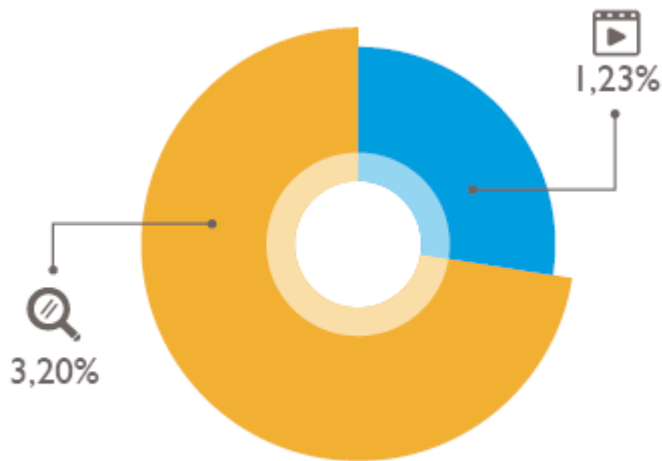
● Vidéos ● Résultats Web Light

### Impression



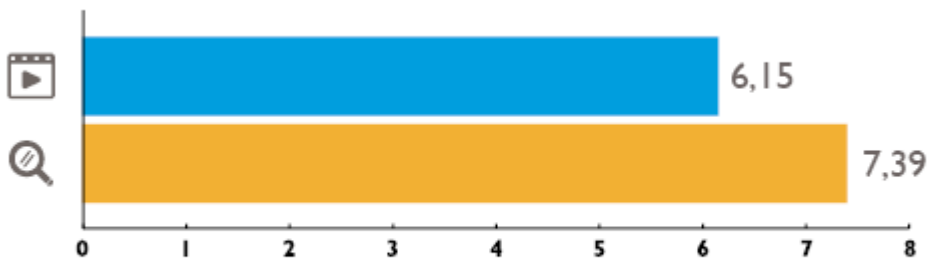
● Vidéos ● Résultats Web Light

### CTR



● Vidéos ● Résultats Web Light

### Position



● Vidéos ● Résultats Web Light







RANO WASH / Photos : Dahery Razaka

## RANO WASH WEBSITE FRONT-END

- **New Template for the Rano Wash website:**
  - **Homepage : favicon creation**
    - The website becomes Bi language
    - Insert search bar
    - Creation of the new Logo
    - Creating a new menu and sub-menu
    - Inserting a photo slider banner
    - Creation of « Featured Category »
    - Rano Wash video presentation
    - Insert " Photo album "
    - Creation Article " News : Success stories "
    - Creation of a contact form
    - Creation counter in Rano Wash in brief
    - Creation scroll to top
    - Chatbox creation

## Webpages

### - Menu Rano Wash:

- Redesign of the pages, Improvement of the " Skin, structure, etc... ".
- Submenu :
  - o Rano wash and the 4 components of the project:
  - o <https://care.mg/ranowash/rano-wash-et-les-4-composants-du-projet/>
  - o Our team : Page modification : Resize Photo and harmonization <https://care.mg/ranowash/notre-equipe/>

### - Regions of intervention menu:

- Insertion of google map by sub-menu and insertion of success stories:

#### Alaotra Mangoro :

- o Amboavory, the umpteenth commune dedicated to ODF (Open Defecation Free) - Alaotra Mangoro Region: <https://care.mg/ranowash/amboavory-enieme-commune-consacree-odf-open-defecation-free-region-alaotra-mangoro/>
  - o Business opportunities in the EAH sector: Field visit with NextA and WeLight in Anosibe Ifody: <https://care.mg/ranowash/opportunitites-daffaires-dans-le-secteur-eah-visite-de-terrain-avec-nexta-et-welight-a-anosibe-ifody/>
  - o Inter-regional water, sanitation and hygiene fair for the Alaotra Mangoro region: <https://care.mg/ranowash/foire-inter-regionale-de-leau-de-lassainissement-et-de-hygiene-pour-la-region-alaotra-mangoro/>
  - o The management of the commune of Ranomainty, Alaotra Mangoro region: the testimony of a very dynamic young mayor: <https://care.mg/ranowash/la-gestion-de-la-commune-de-ranomainty-region-alaotra-mangoro-le-temoignage-dun-jeune-maire-tres-dynamique/>
  - o Major challenges in becoming an ODF commune: testimonies of the first deputy mayor and a field agent in Bejofo, Alaotra Mangoro region : <https://care.mg/ranowash/les-defis-majeurs-pour-devenir-une-commune-odf-temoignages-du-premier-adjoint-au-maire-et-dun-agent-de-terrain-a-bejofo-region-alaotra-mangoro/>
- PARTICIPATION OF RANO WASH IN THE MEDICAL CARAVAN IN AMBOHIBARY, MORAMANGA, ALAOTRA MANGORO REGION : <https://care.mg/ranowash/participation-de-rano-wash-a-la-caravane-medicale-a-ambohibary-moramanga-region-alaotra-mangoro/>

#### Amoron'i Mania :

- o Inaugurations of drinking water supply systems in Amoron'i Mania and Haute Matsiatra : <https://care.mg/ranowash/inaugurations-de-systemes-dapprovisionnement-en-eau-potable-sur-amoroni-mania-et-haute-matsiatra/>

- o Laying of the foundation stone for the construction of drinking water infrastructures in the Commune of Ilaka Centre, Region Amoron'i Mania: <https://care.mg/ranowash/pose-de-la-premiere-pierre-pour-la-construction-dinfrastructures-en-eau-potable-dans-la-commune-dilaka-centre-region-amoroni-mania/>
- o Provisional reception of the new drinking water supply system in Ivato Centre, Amoron'i Mania Region: <https://care.mg/ranowash/reception-provisoire-du-nouveau-systeme-dadduction-deau-potable-a-ivato-centre-region-amoroni-mania/>
- o Inter-regional fair of water, sanitation and hygiene for the regions Amoron'i Mania, Haute Matsiatra and Fitovinany - Region Amoron'i Mania: <https://care.mg/ranowash/foire-inter-regionale-de-leau-de-lassainissement-et-de-lhygiene-pour-les-regions-amoroni-mania-haute-matsiatra-et-fitovinany-region-amoroni-mania/>

#### Atsinanana :

- o Forum on the water, sanitation and hygiene market - Atsinanana Region: <https://care.mg/ranowash/forum-sur-le-marche-de-leau-de-lassainissement-et-de-lhygiene-region-atsinanana/>
- o Mauricia, a little girl who thrives on clean water : <https://care.mg/ranowash/mauricia-une-petite-fille-qui-sepanouit-grace-a-leau-potable/>
- o Water technology developed by Sandandrano: unexpected impacts on the environment and the living conditions of households: <https://care.mg/ranowash/technologie-de-leau-developpee-par-sandandrano-des-impacts-inattendus-sur-lenvironnement-et-les-conditions-de-vie-des-menages/>

#### Haute Mahatsiatra :

- o Directory of Water Sanitation and Hygiene Stakeholders: <https://care.mg/ranowash/annuaire-des-acteurs-du-secteur-eau-assainissement-hygiene/>
- o TV News - Inaugurations of drinking water supply systems in Haute Matsiatra: <https://care.mg/ranowash/journal-tv-inaugurations-de-systeme-dadduction-deau-potable-sur-haute-matsiatra/>
- o The Minister of Water, Sanitation and Hygiene inaugurated two drinking water supply systems: <https://care.mg/ranowash/le-ministre-de-leau-de-lassainissement-et-de-lassainissement-a-inaugure-deux-systeme-dapprovisionnement-en-eau-potable/>
- o Haute Matsiatra: 3,279 new beneficiaries of WASH services through drinking water systems in Andrainjato Est and Androy: <https://care.mg/ranowash/haute-matsiatra-3-279-nouveaux-beneficiaires-des-services-wash-grace-aux-systemes-dadduction-deau-potable-a-andrainjato-est-et-androy-2/>
- o Inaugurations of drinking water supply systems in Amoron'i Mania and Haute Matsiatra: <https://care.mg/ranowash/inaugurations-de-systemes-dapprovisionnement-en-eau-potable-sur-amoroni-mania-et-haute-matsiatra/>
- o Multipurpose reforestation on the Amindrasandambo Andrainjato site - Haute Matsiatra Region: <https://care.mg/ranowash/reboisement-a-vocation-multiple-sur-le-site-amindrasandambo-andrainjato-region-haute-matsiatra/>

### Vakinakaratra :

- o An individual sanitary block has become a model in Mandritsara: <https://care.mg/ranowash/un-bloc-sanitaire-individuel-est-devenu-un-modele-a-mandritsara/>
- o Involvement and collaboration between decentralized structures in the management of a conflict with the local population concerning the construction of a new drinking water supply system in Soanindrariny : <https://care.mg/ranowash/implication-et-collaboration-entre-structures-decentralisees-dans-la-gestion-dun-conflit-avec-la-population-locale-concernant-la-construction-dun-nouveau-systeme-dapprovisionnement-en-eau-potabl/>

### Vatovavy :

- o World Water Day: closed with a reforestation session : <https://care.mg/ranowash/journee-mondiale-de-leau-cloturee-par-une-seance-de-reforestation/>
- o Inter-regional fair of water, sanitation and hygiene for the regions Amoron'i Mania, Haute Matsiatra and Fitovinany - Region Amoron'i Mania : <https://care.mg/ranowash/foire-inter-regionale-de-leau-de-lassainissement-et-de-lhygiene-pour-les-regions-amoroni-mania-haute-matsiatra-et-fitovinany-region-amoroni-mania/>

### Fitovinany :

- o World Water Day: National celebration followed by a visit of the water pumping system in Vohitrindry: <https://care.mg/ranowash/journee-mondiale-de-leau-celebration-nationale-suivie-de-la-visite-du-systeme-dadduction-deau-par-pompage-a-vohitrindry/>
- o International Women's Rights Day in Manakara with the First Lady - Fitovinany Region: <https://care.mg/ranowash/celebration-de-la-journee-internationale-des-droits-des-femmes/>
- o VOHILANY, the island proud of its efforts - Vatovavy & Fitovinany Region: <https://care.mg/ranowash/vohilany-lilot-fier-de-ses-efforts-region-vatovavy-fitovinany/>

#### - **Stories and news menu:**

- Improvement of page layout and insertion of article, image and video content

#### - **Menu resources / PPP / Announcements and offers :**

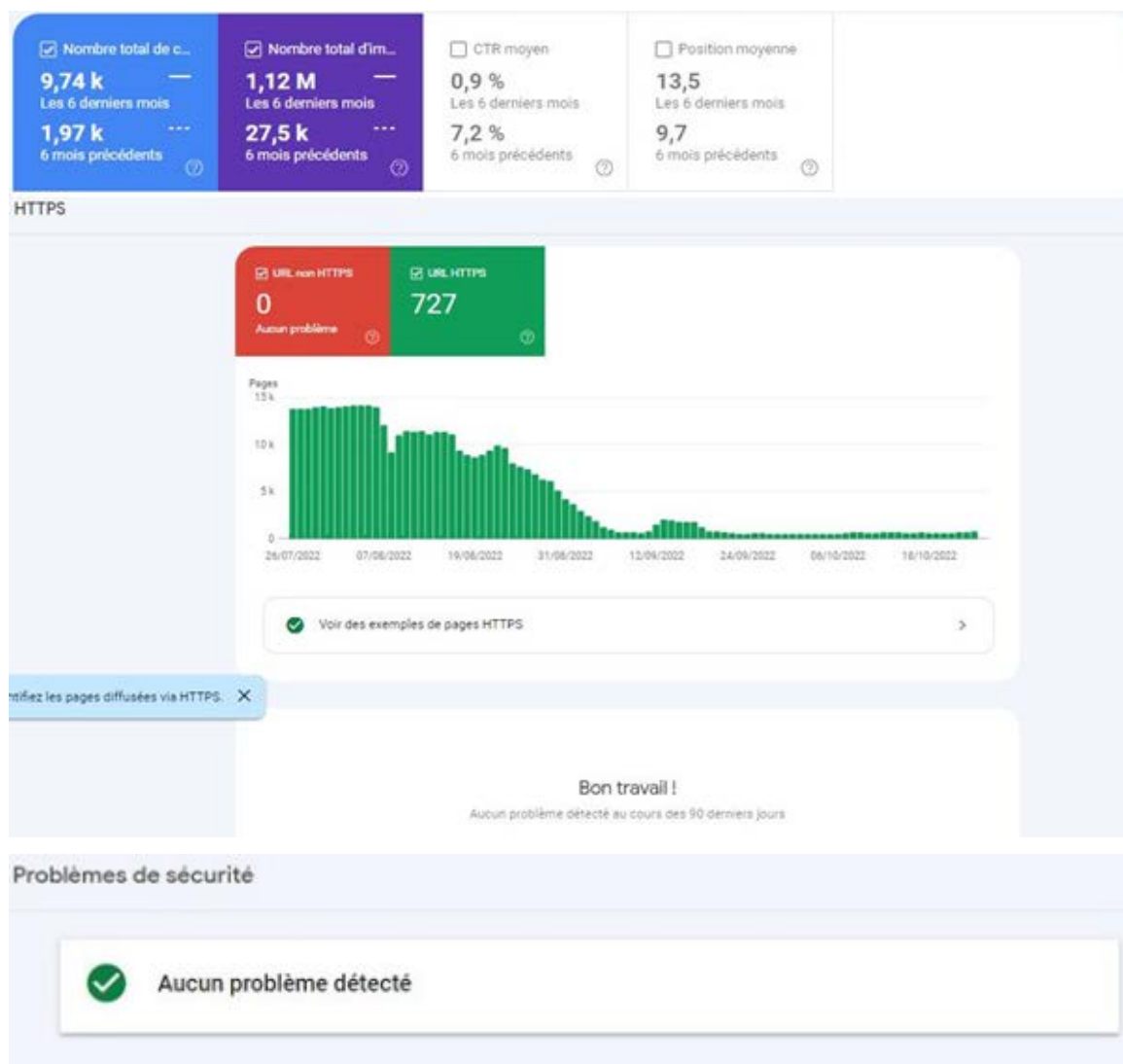
- Submenu creation and document insertion

## SITE RANO WASH BACK-END:

- Installation page builder « elementor »
- Installation PDF Poster
- dFlip books
- Yoast SEO
- ACF
- Wordfence Security
- Wp statistics
- Everest gallery

Increase of the site score

Strengthening of the security of the site



## SUMMARY OF FIELD TRIPS DURING FY 22 Q2

Date and region(s) covered	Objectives of the mission	Link
January 31, 2022 - February 3, 2022	<p><b>AMORON'I MANIA REGION</b></p> <p><i>Ivato Center :</i></p> <ul style="list-style-type: none"> <li>• Provisional reception of the water supply system</li> <li>• Meeting with GIC (Gestionnaire Investisseur Constructeur)</li> </ul>	<p><a href="https://care.mg">Réception provisoire du nouveau système d'adduction d'eau potable à Ivato Centre, Région Amoron'i Mania - RANO WASH (care.mg)</a></p>
	<p><b>HAUTE MATSIATRA REGION</b></p> <p><i>Andrainjato Est :</i></p> <ul style="list-style-type: none"> <li>• Reforestation coverage in the framework of watershed protection</li> </ul> <p><i>Androy :</i></p> <ul style="list-style-type: none"> <li>• Video shooting on the beneficiaries of private and social connections</li> <li>• Interview with the Mayor</li> </ul>	<p><a href="https://care.mg">Reboisement à vocation multiple sur le site Amindrasandambo Andrainjato - Région Haute Matsiatra - RANO WASH (care.mg)</a></p>
March 15, 2022 - March 26, 2022	<p><b>ALAOTRA MANGORO AND ATSIANANA REGIONS:</b></p> <p><i>Sabotsy Anjira- Amboavory-Amparafaravola- Foulpointe- Mahatsara Brickaville-</i></p> <ul style="list-style-type: none"> <li>• The objective was to make the control and follow-up of VSLA in full competition</li> <li>• Shooting for the new WASH program and VSLA contest</li> <li>• Media coverage of the ODF consecration of Amboavory</li> </ul>	<p><a href="https://care.mg/ranowash/amboavory-enieme-commune-consacree-odf-open-defecation-free-region-alaotra-mangoro/">https://care.mg/ranowash/amboavory-enieme-commune-consacree-odf-open-defecation-free-region-alaotra-mangoro/</a></p>
	<p><b>VAKINANKARATRA REGION</b></p> <p><i>Ambohitsimanoa, Antsoantany :</i></p> <ul style="list-style-type: none"> <li>• First shooting for the realization of a video on environmental compliance</li> <li>• Collection of image bank</li> <li>• Menabel Vatofotsy</li> <li>• Logistical support and guarantee of visibility during the SO3 review</li> </ul>	<p><a href="https://care.mg/ranowash/celebration-de-la-journee-internationale-des-droits-des-femmes/">https://care.mg/ranowash/celebration-de-la-journee-internationale-des-droits-des-femmes/</a></p>
February 27, 2022 - March 13, 2022	<p><b>AMORON'I MANIA REGION</b></p> <p><i>Tsarasaotra :</i></p> <ul style="list-style-type: none"> <li>• Shooting a video on the WASH Friendly School</li> <li>• Ambositra</li> <li>• Interview with Vola (local disabled mason) for a success story</li> </ul>	<p><a href="https://care.mg">INFRASTRUCTURE EN EAU POTABLE SUR VOHITRINDRY - YouTube</a></p>

Date and region(s) covered	Objectives of the mission	Link
February 27, 2022 - March 13, 2022	<p><b>VATOVAVY SY FITOVINANY REGION</b></p> <p><b>Manakara :</b></p> <ul style="list-style-type: none"> <li>• Meeting with women leaders of the six regions of the project</li> <li>• Coverage of the «Women Leader» workshop</li> <li>• Participation in the training of journalists on the integrated gender approach by RANOWASH</li> <li>• Coverage of the activities of the celebration of the International Women’s Rights Day</li> <li>• Ambohitrova</li> <li>• Shooting of a video for the VSLA program</li> <li>• Shooting of a video on the relay agent</li> <li>• Antsary</li> <li>• Coverage of the International Women’s Rights Day - reforestation with the First Lady of Madagascar</li> </ul> <p><b>Andemaka</b></p> <ul style="list-style-type: none"> <li>• Rush for the First MBS Sanitation product test with IDE</li> <li>• Andonabe and Vohitrindry</li> <li>• Shooting of a video on the infrastructures co-financed by AFD (Agence Française de Développement) and USAID</li> </ul>	<p><a href="https://care.mg/ranowash/celebration-de-la-journee-internationale-des-droits-des-femmes/">https://care.mg/ranowash/celebration-de-la-journee-internationale-des-droits-des-femmes/</a></p> <p><a href="#">INFRASTRUCTURE EN EAU POTABLE SUR VOHITRINDRY - YouTube</a></p>
March 20, 2022 - March 27, 2022	<p><b>AMORON’I MANIA REGION</b></p> <p><b>Ambositra :</b></p> <ul style="list-style-type: none"> <li>• Shooting of a success video on Vola (Local disabled mason)</li> </ul> <p><b>VATOVAVY SY FITOVINANY REGION</b></p> <p><b>Manakara:</b></p> <ul style="list-style-type: none"> <li>• Preparation of the WWD (World Water Day)</li> <li>• Coverage of the WWD (World Water Day) (with live transmission of the event)</li> </ul> <p><b>Vohitrindry:</b></p> <ul style="list-style-type: none"> <li>• Visit of the infrastructure co-financed by AFD (French Development Agency) and USAID with the Minister of Water, Sanitation and Hygiene</li> </ul> <p><b>Andonabe:</b></p> <ul style="list-style-type: none"> <li>• Finalization of the shooting for a video on the infrastructure co-financed by AFD (Agence Française de Développement) and USAID</li> </ul>	<p><a href="#">INFRASTRUCTURE EN EAU POTABLE SUR VOHITRINDRY - YouTube</a></p> <p><a href="#">Journée mondiale de l’eau : Célébration nationale suivie de la visite du système d’adduction d’eau par pompage à Vohitrindry - RANO WASH (care.mg)</a></p> <p><a href="#">Journée Mondiale de l’Eau : clôturée par une séance de reforestation - RANO WASH (care.mg)</a></p>

Q3

Date	Location	Purpose of the mission	Links
May 15 to 21, 2022	Amoron'i Mania and Haute Matsiatra regions	<ul style="list-style-type: none"> <li>- Preparation of the 4 inaugurations in the communes Ambatomarina and Ivato Centre, Amoron'i Mania region and in the communes Androy and Andrainjato Est, Haute Matsiatra region (logistics, agendas, protocol...)</li> <li>- Event coverage</li> <li>- Organization of a press tour</li> </ul>	<a href="https://care.mg/ranowash/inaugurations-de-systemes-dapprovisionnement-en-eau-potable-sur-amoroni-mania-et-haute-matsiatra/">https://care.mg/ranowash/inaugurations-de-systemes-dapprovisionnement-en-eau-potable-sur-amoroni-mania-et-haute-matsiatra/</a>
May 25 to June 2, 2022	Atsinanana and Analanjirifo regions	<ul style="list-style-type: none"> <li>- Shooting storytelling winning sketch contest</li> <li>- Clip hira fanentanana WASH - Filming tuto making washable sanitary napkin</li> <li>- JMHM coverage in Analanjirifo with Minister MEA and UNICEF Representative. RANO WASH was among the officials during these events. On this occasion, we gave sewing machines to the association of young high school students and a VSLA group on Analanjirifo</li> <li>- Cover PSI CRS Ivoloana stand2</li> <li>- Coverage of the visit of the minister of our systems on Foulpointe, precisely, a passage in the office of Sandandrano</li> <li>- We participated in an activity of the Atsinanana region, SPE exchange, with several donations made in the region</li> <li>- Ambila : interview, system video</li> </ul>	
June 27 to July 3	Vatovavy	Lokomby: Preparation of the exhibition session from June 30 to July 01, 2022, the main objective of the « Testing field 2- IDE ».	





## OTHER ACTIVITIES DURING Q2 FY 22

### I. Team Building Organization

A team building was organized to reinforce the cohesion between the collaborators as well as to welcome the new CARE director in Madagascar, Monique Morazain.

The communication team ensured the success of this event, notably the sound system, the animation, the games and the search for a provider for the food.

### 2 Support for the organization of internal events

The communication team contributes to the organization of internal events of the project such as the SO3 review and the biannual review RANO WASH.

- For the biannual review RANO WASH, the objective is to finalize the transition plan of the project. The event took place at the Catholic Relief Service Tsiadana from March 14 to 16, 2022.
- As for the SO 2 Mid-Year Review, it took place the week of February 28 in Antsirabe, Vakinankaratra region. It was an opportunity to evaluate the activities carried out and to share the difficulties encountered by the regions as well as the methods adopted to overcome them

The roles of the communication team were crucial and versatile, including logistics coordination.



RANO WASH / Photos : Daheery Razaka

### 3 Production of a WASH program

The RANO WASH project developed a program on WASH with the Ministry of Water, Sanitation and Hygiene. It is awarded to the VSLA competition. The program is called RANO AINA.

Here is the concept:

- All VSLA members try to get water at home, either through a private or social connection. Afterwards, they canvass potential customers.
- Each VSLA association could also work with public and private actors such as water system managers, ATEAH, the mayor in order to create a WASH service.

In this regard, we have done some filming in the following locations:

Region	Communes
<b>ALAOTRA MANGORO</b>	Sabotsy Anjiro Bejofo Amparafaravola Commune suburbaine Ambatondrazaka
<b>ATSINANANA</b>	Mahatsara Brickaville Ampasimadinika Foulpointe
<b>VATOVAVY AND FITOVINANY</b>	Ambohitrova

The program will be broadcast on national television starting May 8, 2022.









## COMMUNICATION TOOLS

Below are some of the communication tools that have been developed and used through FY 22 o

RANOWASH Website,

- o Facebook page (CARE International Madagascar),
- o Twitter (CARE International Madagascar),
- o Quarterly Newsletter (RANO WASH à la une - February 2022)
- o E-mailing,
- o Press releases and other materials for media engagement,
- o Press conferences (when applicable),
- o Informative Brochure,
- o Different events and fairs in the 7 regions of intervention,
- o Success stories and beneficiary testimonials,
- o Photography and video message

 Calendar	500 calendars distributed
 Newsletter	1261 people reached, nationally and internationally
 Rano Wash Website	14 post published
 Written success stories	6 success stories
 Videos	5 videos
 Field descent	4 field descents

## NEWSLETTER

The RANO WASH Communication team is responsible for effectively documenting and disseminating project achievements, results, best practices, and lessons learned to a broad audience at the international, national, and local levels. The quarterly newsletter remains one of the means to effectively achieve this goal. Indeed, the RANO WASH project has been sending out regular newsletters since September 2021, Q4 FY21.

The last newsletter was published in February 2022, Q1 FY 22 «RANO WASH A LA UNE - FEBRUARY 2022».

This year, for the second edition of the Newsletter “RANOWASH A LA UNE – FEBRUARY 2022”, we sent 1261 emails compared to 1034 last year. An online preview of the newsletter is available at the following link: <https://viewstripo.email/80b103f6-f593-4e3e-956712582e3b1644242646756>



### RANO WASH À LA UNE - Février 2022 -



#### Inauguration du système d'adduction d'eau potable gravitaire à Ambohitsimanova, Région Vakinankaratra

Un système d'Adduction d'Eau Potable Gravitaire à Ambohitsimanova. Infrastructures financées par l'USAID à travers le projet RANO WASH, dans le district d'Antsirabe II, a été inauguré... [Lire la suite](#)



#### Le premier forum de l'eau à Madagascar

Le forum vise à promouvoir le partenariat public privé en faveur de l'accès à l'eau et la Région Haute Matsiatra avec la Direction Régionale de l'Eau, Assainissement et Hygiène l'avaient organisé afin d'inviter les entreprises locales, régionales et nationales à investir dans le secteur de l'eau, l'assainissement et l'hygiène et en particulier l'eau potable... [Lire la suite](#)



#### Lancement officiel de la campagne nationale "hygiène des mains pour tous"

Le Volirino 2 du Président de la République vise à ce que 90% des Malgaches aient l'habitude de se laver les mains avec de l'eau propre et du savon d'ici la fin de l'année 2023. Cette activité est la plus simple et la moins coûteuse... [Lire la suite](#)

## LIST OF GRAPHIC DESIGNS AND SUPPORT BY THE COMMUNICATIONS TEAM FOR FY 22

### Q2

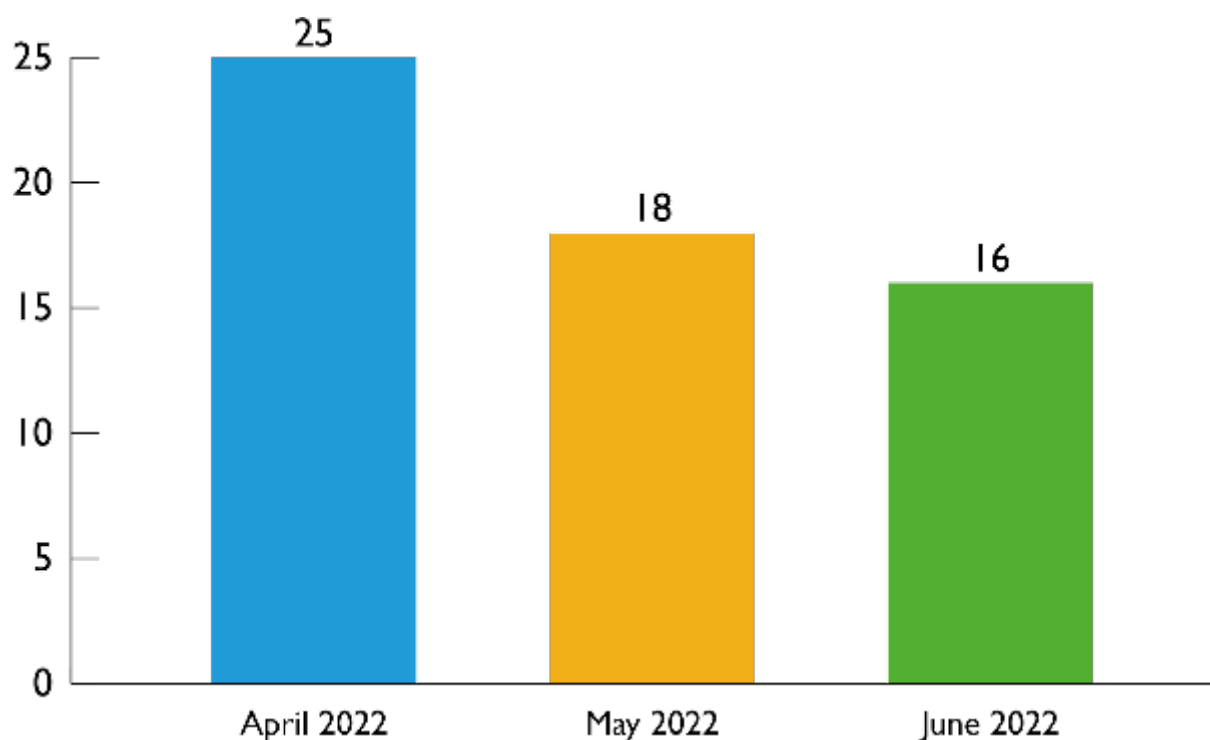
JANUARY	FEBRUARY	MARCH
Greeting card design	Layout Strategic Recommendations for RANO WASH	Design VOAMAMI plate
Layout of the organization chart	Modification Calendar	Modification of the Financial Education Advisory Card
Layout THE CONTRIBUTION OF THE SAVINGS GROUPS	Modification of GIS Reminder Card	Modification of VSLA certificate
Layout Catalogue of products	Design of the Financial Education Advisory Card	Modification poster Hajaiko ny fahadiovan'ny kabone
Layout Fisy Teknika Lehilahy sy tovolahy mampahefa ny Vehivavy sy tovovavy	VOAMAMI Professional Card Design	Modification poster Sekoly mendrika
Layout Ministry of Water, Sanitation and Hygiene Magazine	VSLA Certificate Modification	Modification poster Tobim-pahasalamana mendrika
Canva design Common form	Poster design SO3 - institutions	Kakemono modification
Layout Gender mapping Q1	Hajaiko ny fahadiovan'ny kabone poster design	CAD layout Learner
Layout Success Story Q1 FY22	Sekoly mendrika poster design	CAD layout Trainer
Guidelines for spontaneous PPP layout	Tobim-pahasalamana mendrika poster design	Modification of business card (Minister, Tech Collaborator, CRD, DAH, DIRCAB)
Men and boy Role Models in WASH layout	Design Kakemono	Layout Advocacy document
Layout offer Logistics Assistant Driver	Plate design Andrainjato	Modification Banner Fankalazana Nasionaly ny Andro Manerantany ho an'ny Rano
Design Communication Kit FR	Plate design Andrainjato East	Modification Poster Andro Manerantany ho an'ny Rano
Design Communication Kit ENG	Design plate Andrainjato Androy	Modification Poster sensitization Andro Manerantany ho an'ny Rano
Layout The toilet everyone wants	Design pen RANO WASH	Design Invitation Sustainable Linkage Day

JANUARY	FEBRUARY	MARCH
Layout Sheet I - The different types of disabilities	Design gourd RANO WASH	Design WASH Brochure
Layout Prototyping and Testing Progress	Modification of the product catalog	Modification Roll up World Water Day
Layout The determinants of handwashing with soap	Design sticker MEAH USAID RANO WASH	Design Banner FIKAMBANAN'NY MPAHAY TAO KABONE SY MPAHAY TAO-TRANO: «MENDRIKA
Layout The determinants of handwashing with soap	Design Banner Viavy miavotse Haute Matsiatra	Layout Program (World Water Day)
Modification Calendar		Update Organizational Chart
		Update Product Catalogues

### Q3

April 2022	May 2022	June 2022
Wash in pictures formatting	Illustration Extension GIC & Extension MANAMPY CORP	Layout Logo Terms of Reference
Care RW Header Formatting	Design of the Androy inaugural plaque	Design invitation Business opportunities in the WASH sector
Formatting success stories	Design of the inaugural plaque Andrainjato East	CAD layout Trainer
Formatting AFD Header	Design of the Ambatomarina inaugural plaque	Layout CLTS Learner
infographic Calendar distribution list for the year 2022	Design of the inaugural plaque Ivato Centre	Layout EH Trainer
Formatting Elements in an AEP system EN	Design invitation Amoron'i Mania	Layout 8I PL Trainer Module V3
Formatting Elements in an AEP EN system	Design invitation Haute Matsiatra	Layout 9I Module ASA Trainer VFI + cmts TY
Gender Mapping layout EN	Layout Androy sheet	Layout 92 ASA Learner Module
Layout Water Quality Management Approach for a Drinking Water Supply System	Layout Andrainjato East Sheet	Mockup cap design
Layout PDMW Atsinanana EN	Layout Ambatomarina sheet	Design Mockup vest

April 2022	May 2022	June 2022
infographic Investment made by VSLA	Layout Ivato Center Sheet	Design Mockup T-shirt
Layout Calendar of Events Forecast	Design Bache Androy	Add logo and disclaimer Pitch Deck
Infographic village ODF	Design Bache Andrainjato East	VSLA certificate modification
Infographic Approaches used to obtain ODF Community	Design Bache Ambatomarina	Modification of the VSLA board map
Layout Gender focal point mapping supported by RANO WASH	Design Bache Ivato Centre	Visual design fanabeazana ara- bola
Layout Transition plan for gender and social inclusion	Design Cover APD Maromby	Poster design for CSB



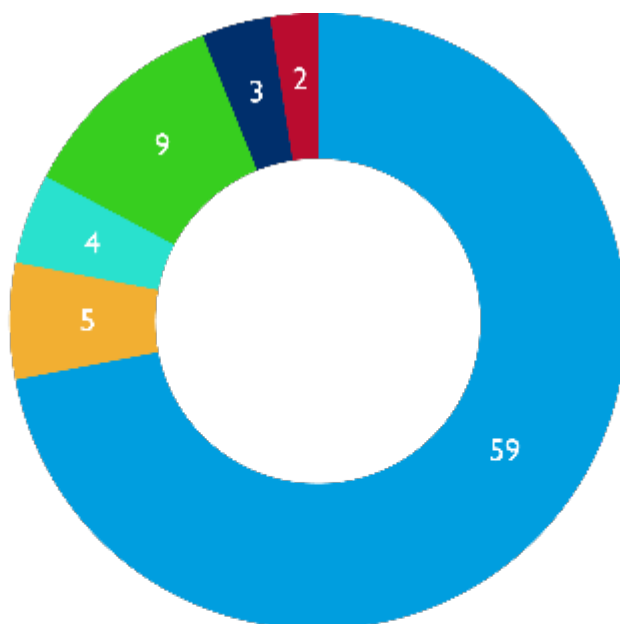
Q4

July 2022	August 2022	September 2022
Layout Restitution Lokomby	Modification of the invitation Andonabe	Infographic RW learning
Visual design modification fanabeazana ara- bola	Modification of the invitation Andrainjato	Design Certificate ATEAH
Design maquette System Namorona	Modification of the inaugural plaque Andonabe	Layout Welcome Pack
Design maquette System Mahazoarivo	Modification of the inaugural plaque Andrainjato	Poster design Welcome Pack
Layout Termination process	Layout Andrainjato sheet	Layout RANO WASH Gender Analysis
Layout Wash in pictures	Layout Banner Andrainjato	Layout Gender and social inclusion mainstreaming strategy
Layout Success stories	Design bache Andonabe	Layout draft Annex Q4
Layout Gender Mapping EN	Design bache Andrainjato	Layout maquette System Mandialaza
Layout NARRATIVE Q3 FY 22	Layout Factsheet Rano Wash	Layout PPT - Institutional Strengthening for Strong Leadership
Infographic List of actors ATS - VKN - ALM	Layout Logo Programme inauguration	Layout PPT - Strengthen the municipality to ensure the control of the project
Poster design CSB	Layout Rano Wash pouch	Layout PPT - Gender Mainstreaming and Social Inclusion in WASH
Infographic Deliverable summary	Gender Mapping layout EN (23 regions)	Layout PPT - Mobilizing the private sector to invest in the WASH sector
Design invitation AEP Andonabe	Layout Logo Parution RFQ	Layout PPT - Increase public funding for the wash sector
Layout Andonabe Sheet	Layout Logo TDR - Consultants- Institutions	Layout PPT - Small-scale Operators in WASH service provision
Layout Processus MECIE	layout TDR Communication Intern	Layout PPT - Private Sector Engagement for Clean Water - IAG
Layout annex brief commune odf	Layout Internship offer in Communication	Layout PPT - Behavior Change and Service Use - GUS VSLA



July 2022	August 2022	September 2022
Infographic Distribution of ODF Communes by Region	Layout Integrating WASH and nutrition in Madagascar for children's growth, development and health.	Layout PPT - How the systems approach contributes to behavior change
Infographic ODF Communes maintenance situation	Filing of files for capitalization	Layout PPT - Climate change
Infographic ODF Communes year obtention	Poster design behavior 3	Layout PPT - Project owner
Design invitation AEP Andrainjato	Update Logo Poster IEC tools	Design invitation capitalization seminar
Infographic ANNEX xx. RANO WASH TRANSITION PLAN Q3.22 UPDATE		Layout PPT - iDE Slides for Learning Event Presentation
Infographic IPTT Q3		Layout MBS Prototyping and Testing Final Report
Infographic Distribution of amount use by VSLA members in WASH		Modification of poster design CSB
Infographic Approaches used to obtain ODF Communities		
Design Sticker A5 - A4 (MEAH USAID RW AFD)		
Design Banner Andonabe		
Infographic Etapes Antanifotsy en-US		
Design of the inaugural inaugural plaque Andonabe		
Layout PPT Report from STEAH mobile training		

## DELIVERABLES SUMMARY



- Graphic Design Work
- Event
- Descent
- Video shooting
- Processed videos
- Success story



## TEAM RESTRUCTURATION AND TASK DISTRIBUTION DURING Q2 FY22

For Q2 FY 22, the task distribution was updated because the second Communication Assistant left.

The team is conducting a replacement process while planning to hire a full-time Webmaster and Communications Assistant.

Call to action	Remarks	Sitraka	Niaina	Voarisoa	Dahery	Nasedra	Videographer Assistant
Management and updating of the website	Maintain a publication schedule	●					
Social network management (consortium and regional team)		●					
Workplace Management			●	●			
Globalwater Management		●			●		
Publication on SharePoint						● upload	● upload
Newsletter design		●					
Watch on social networks of care, USAID, CRS, WaterAid, MEAH	Follow-up of the conformity of the publications, News	●		●			
Compliance monitoring and marking plan	Visibilities, goodies, document, panel, ...	●		●			
Monitoring the impact of publications				●			
Management and update of contacts	Cluster wash, pSEau, investor, ministry, partners ...	●					
Translation and proofreading of documents		●		●			
organization of events	Fair, inauguration, celebration ...			●			
Maintenance of the monthly event calendar	Collection from SOs, regions, consortium, ministry		●	●			
Regional team management	Data collection, success stories collection, monthly actions and events collection...		●				

Call to action	Remarks	Sitraka	Niaina	Voarisoa	Dahery	Nasedra	Videographer Assistant
Collaboration with MEAH and follow-up of actions at the Ministry level; Management of the World Days	Attend the monthly meeting with resp com and DCP			●			
Collaboration with Com Consortium team, follow-up of events at CRS, CARE, WaterAid level	Setting up of periodic meeting		●	●			
Field update management	Follow-up of the successes with the TA, situation and need of the communes ...		●				
Field mission		●	●	●			
Script design for promotional videos, success stories, event coverage	Publi reportage interview...		●	●			
Script design for institutional videos, podcasts, ...	Video for investors, technical training (water quality, system construction, ...), integrated approach, PPP	●					
Photo coverage					●		
Shooting of the videos							●
Editing of promotional videos and podcasts of standard training modules							●
Editing of institutional videos					●		
Video skins					●	●	●
Formatting and computer graphics						●	
Design and simple computer graphics in back up	Publication, poster ...	●		●			
Management and follow-up of Com materials				●			
Management of journalist pools, follow-up of publications and TV broadcasts	Press tour, press conference, article publication, ...		●				
Filing and archiving of the outputs com	Photo, video, article, success story, poster, plaque, ...			●			
Drafting of mission reports			●				

Rural Access to New Opportunities in Water, Sanitation, And Hygiene  
 RANO WASH FY2022 Quarter 4 & Annual Report – Annexes

Call to action	Remarks	Sitraka	Niaina	Voarisoa	Dahery	Nasedra	Videographer Assistant
Preparation of DA/DS		●	●				
Follow-up and collection of liquidations, team mission report respecting deadlines			●				
Follow-up of validation circuits			●	●			
Follow-up of the monthly purchasing plan							
Communication strategy development and implementation, quarterly report with the communication manager	Redaction, data collection ...	●	●	●	●		
Responsible for the water section	Execution of communication plan	●					
Responsible for the sanitation section and all that concerns the VSLA groups			●				
Responsible for the hygiene section			●	●			
Responsible for the institution and transversal section			●	●			



## **ANNEX 4. RANO WASH FINANCE & COST SHARE Q4.22 UPDATE**

### **FINANCIAL MANAGEMENT**

RANO WASH's total expenditure in Q4 FY 2022 is \$1,742,887. It is computed to give a Year To Date (YTD) expenditure of \$6,330,069, representing a burn rate of 78% against the total budget of \$8,076,870.

The overall financial performance in Q4.22 has been affected by the delay in negotiating with the subcontractors for the construction to maintain the amount approved by USAID, which also took some time to get the approval. Besides, CARE recorded commitments of \$151k not reported this quarter, giving anticipated YTD expenses of \$6,481,560, representing an anticipated burn rate of 80%.

The commitment expenses of \$151k consists of i) construction costs of \$55k, ii) program activities of \$23k, iii) shared pool expenses of \$59k, iv) and related ICR.

The table below indicates the breakdown of the major line items per the cooperative agreement budget structure to demonstrate the financial performance for this quarter Q4.22 and the cumulative expenses to date.

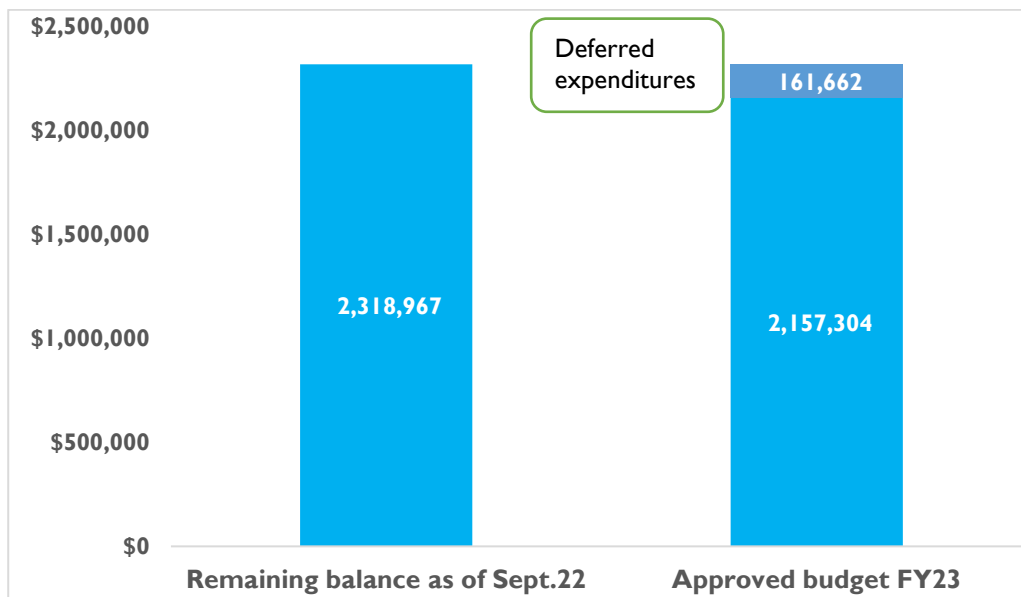
The benefits line item represents a negative amount of (\$95,368) for this quarter Q4.22 to continue some realignments at the CARE USA, so that the expenditures recorded reflect the budget lines to which they pertain to align with the NCE-approved budget.

Rural Access to New Opportunities in Water, Sanitation, And Hygiene  
RANO WASH FY2022 Quarter 4 & Annual Report – Annexes

Line-Item Description	Total	Q1	Q2	Q3	Q4	FY22	FY22	Total NCE budget	Cumulative	Total
	FY 22 Budget	(Oct- Dec 2021)	(Jan - Mar 2022)	(Apr-Jun 2022)	(Jul-Sept 2022)	Expenditure to date	Burn rate to date	Mod#12 FY18 -FY23	Expenditure to date FY18-Q3. FY22	% Spent to date
Salaries	974,164	218,294	172,931	(96 866)	505 056	799 416	82%	3,614,812	3 143 713	87%
Allowances/Benefits	350,858	90,898	62,903	239 961	(95 368)	298 395	85%	1,245,038	1 118 042	90%
Consultant Costs	43,107	11,121	5,225	13 678	5 880	35 904	83%	126,505	98 107	78%
Travel Costs	44,724	19,740	4,475	18 004	(4 084)	38 135	85%	226,213	203 779	90%
Equipment and Supplies	-	-	-	-	-	-	0%	447,306	443 496	99%
Program Cost	387,585	87,349	29,488	116 545	(21 833)	211 549	55%	2,428,370	2 479 145	102%
Construction Costs	810,778	63,581	185,324	222 941	262 877	734 723	91%	1,527,193	1 244 082	81%
Sub-awards	4,398,898	864,814	702,672	931 417	862 315	3 361 218	76%	16,255,220	15 151 531	93%
Other Direct Costs	261,104	68,146	49,059	47 918	54 195	219 319	84%	1,123,105	1 023 519	91%
<b>Total Direct Costs</b>	<b>7,271,219</b>	1,423,945	1,212,077	1 493 599	1 569 038	5 698 658	78%	26,993,762	24 905 416	92%
Indirect Costs	805,651	157,773	134,298	165 491	173 849	631 411	78%	3,006,238	2 775 618	92%
<b>Total USAID Costs</b>	<b>8,076,870</b>	1,581,718	1,346,375	1 659 089	1 742 887	6 330 069	78%	30,000,000	27 681 033	92%
Cost Share	613,225	444,939	8,411	165 106	-	618 456	101%	3,000,000	3 909 273	130%
<b>Total Project Cost</b>	<b>8,690,095</b>	2,026,657	1,354,786	1 824 195	1 742 887	6 948 525	80%	33,000,000	31 590 306	96%

### Obligated amount.

RANO WASH was fully obligated through modifications #1 to #15 received last quarter. RANO WASH has a remaining obligation of \$2,318,967, which derives from the total NCE budget of \$30,000,000 minus the ITD expenses of \$27, 681,033. The table below represents the total amount of the approved budget FY23 of \$2,157,304 compared to the remaining balance of \$2,318,967. The major estimated variance of about \$161,662 comes from the construction to be paid in Q1. FY23.



### Taxes.

RANO WASH completed the taxes report from the beginning of the project in FY17 to FY21 (*régularisation budgétaire*). The financial reports for FY22 will share with the MEAH in Q1. FY23.

### Cost Share

RANO WASH cost share has been divided into three categories:

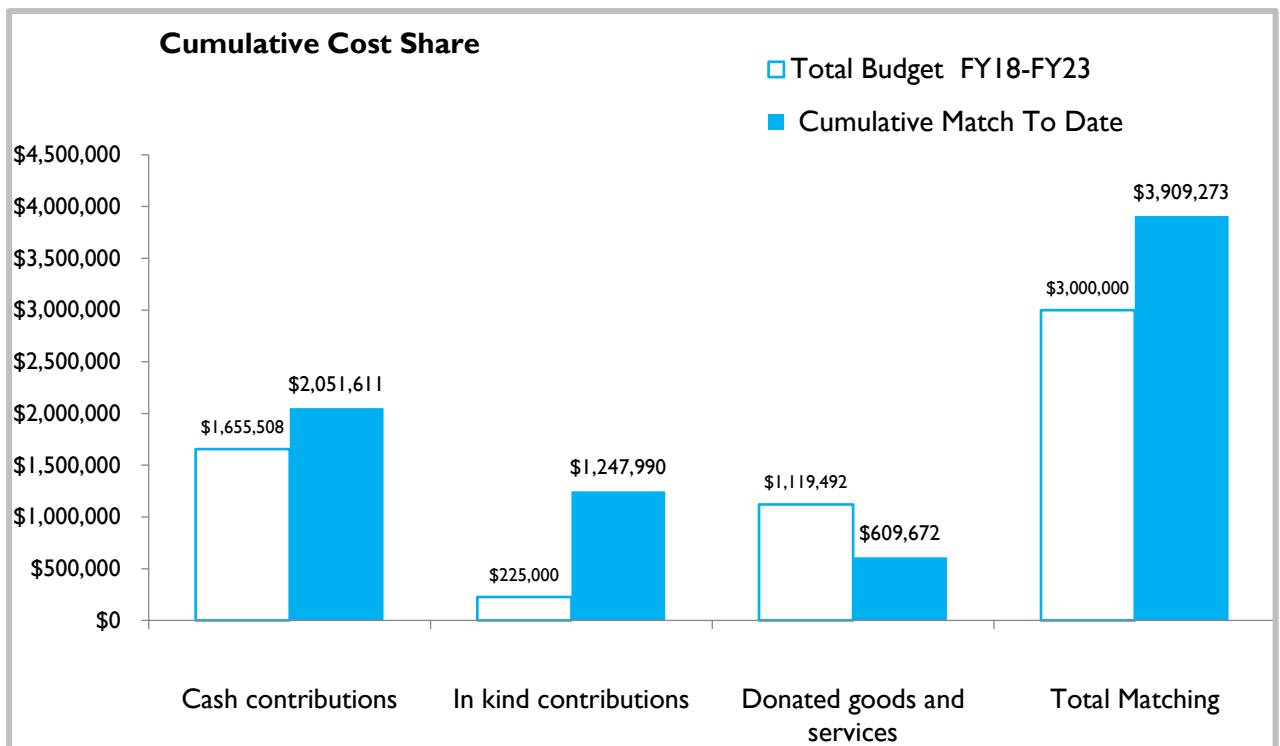
- (1) **Cash contributions** come from water service providers’ co-investments (15-30%) in the construction of water supply systems, as part of the Build-Invest-Operate and Maintain PPP model promoted by RANO WASH, from the users’ water connections (private or shared connections), and non-USG funding (including Charity Water under CRS, unrestricted fund from WaterAid, and AFD under CARE).
- (2) **In-kind contributions** are mainly the households purchasing or building improved latrines adapted to the local context.



(3) **Donated goods and services** may include items such as expendable or use of equipment, contributed operating costs, training and workshop that must be an integral of an approved project.

In FY2022, the project continues its contribution for a total of \$618,456 in cost-share, representing 101% of \$613,225 planned.

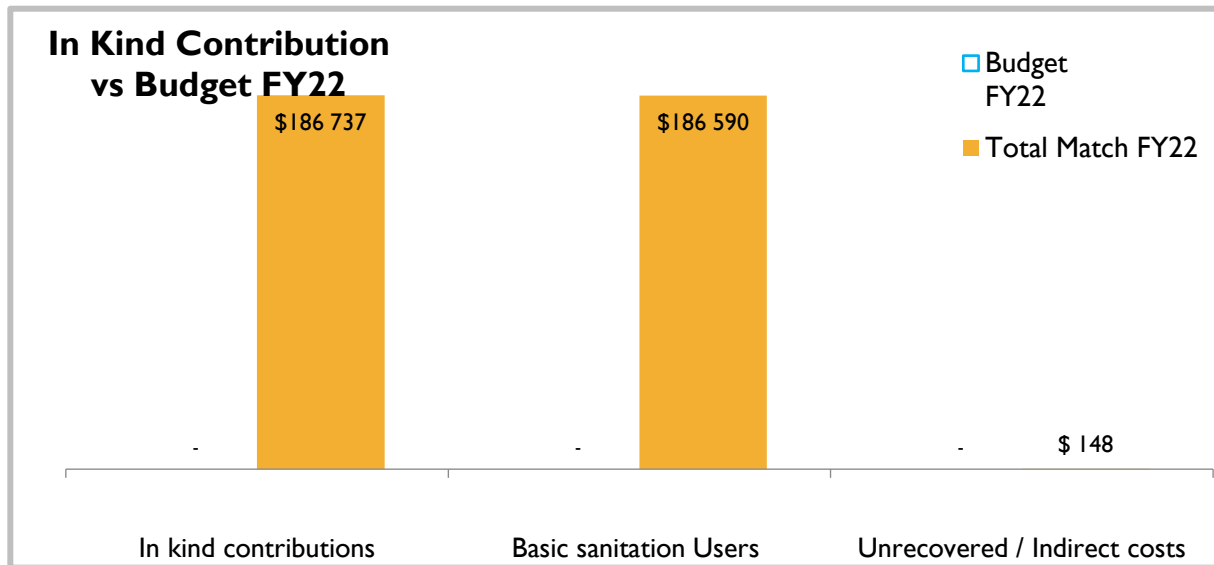
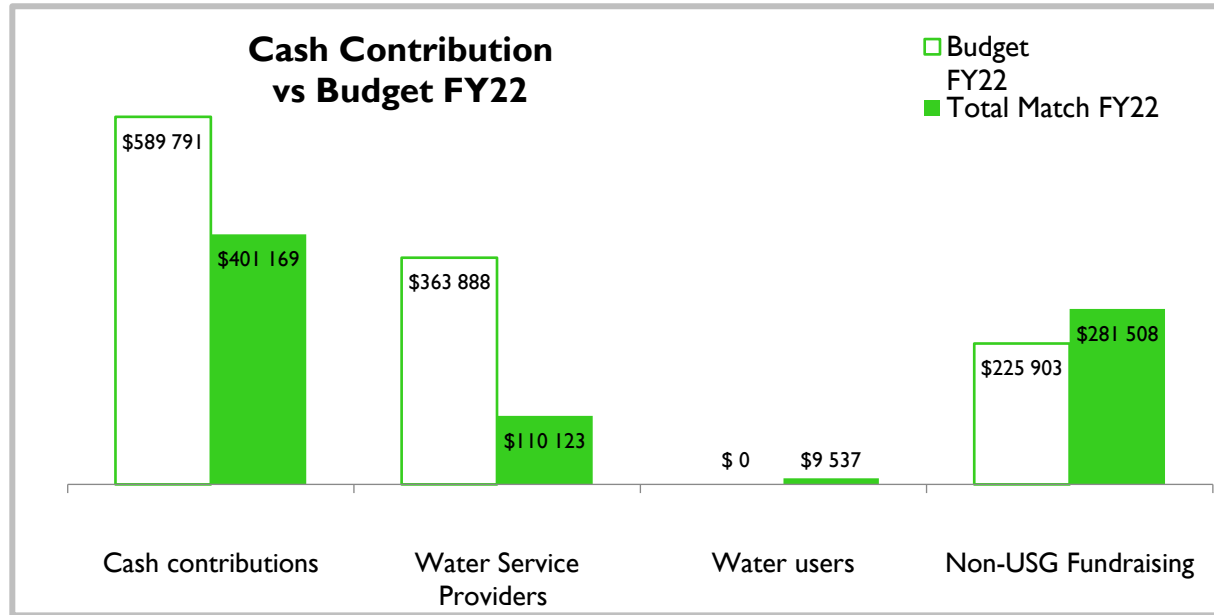
For the entire project lifetime, RANO WASH is exceeding match fund requirements, with a total contribution to date of \$ 3,909,273 representing 130% of \$3,000,000 per the Cooperative agreement.

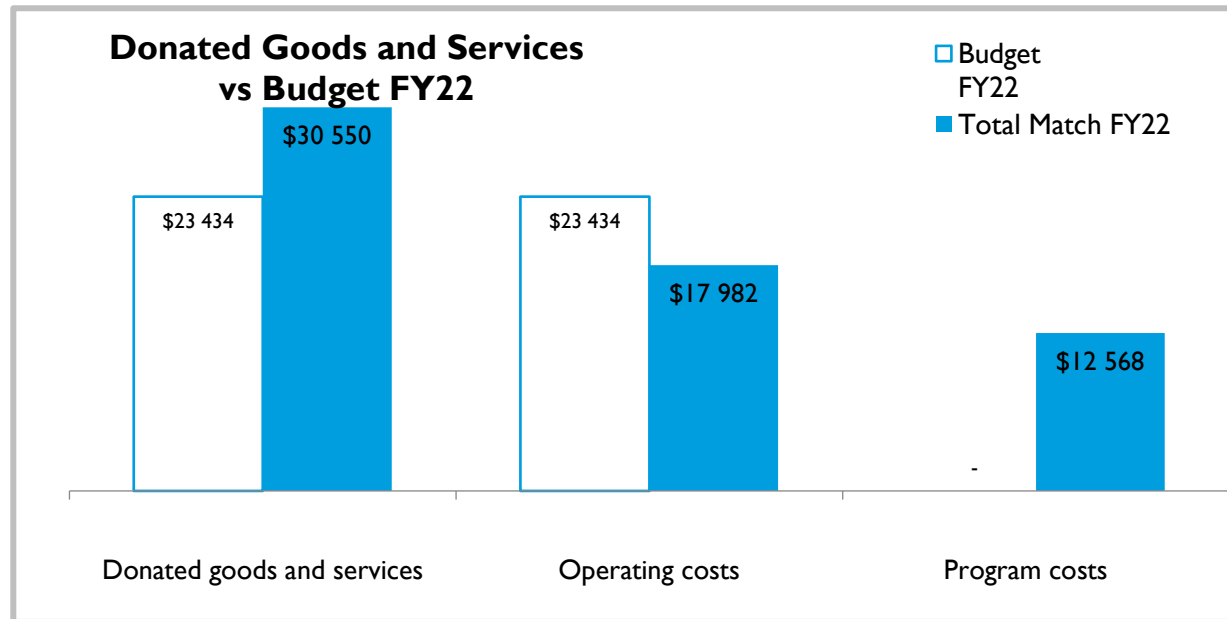


The following table represents the source of matching, ITD as of Q4. FY2022 (amount in \$USD).

Rural Access to New Opportunities in Water, Sanitation, And Hygiene  
RANO WASH FY2022 Quarter 4 & Annual Report – Annexes

Current FY, FY22 (October 1,2021 to September 30,2022)										
Description	Budget FY22	Match Q1.22	Match Q2.22	Match Q3.22	Match Q4.22	Total Match FY22	%age Match FY22	Total Budget FY18-FY23	Cumulative Match To Date	%age Match To Date
<b>Cash contributions</b>	\$589,791	\$311,236	\$6,248	\$83,684		\$401,169	68%	\$1,655,508	\$2,051,611	124%
Water Service Providers	\$363,888	\$25,898	\$6,248	77,977		\$110,123	30%	750,000	\$389,368	52%
Water users	\$0	\$3,830	-	\$5,707		\$9,537	-	343,000	\$121,973	36%
Non-USG Fundraising	\$225,903	\$281,508	-	-		\$281,508	125%	562,508	\$1,540,270	274%
<b>In kind contributions</b>	\$0	\$112,945	-	\$73,792		\$186,737	-	\$225,000	\$1,247,990	555%
Basic sanitation Users	\$0	\$112,798	-	\$73,792		\$186,590	-	225,000	\$1,164,793	518%
Unrecovered / Indirect costs	\$0	\$148	-	-		\$148	-	-	\$83,198	-
<b>Donated goods and services</b>	\$23,434	\$20,757	\$2,163	7,629		\$30,550	130%	\$1,119,492	\$609,672	54%
Operating costs	\$23,434	\$9,228	\$1,125	7,629		\$17,982	77%	624,436	\$388,736	62%
Program costs	\$0	\$11,529	\$1,038	-		\$12,568	-	495,056	\$220,936	45%
<b>Total Matching</b>	\$613,225	\$444,939	\$8,411	\$165,106		\$618,456	101%	\$3,000,000	\$3,909,273	130%
									Project lifetime completed	88%
									%age of cost share target	149%





## ANNEX 5. RANO WASH DISPOSAL PLAN UPDATE Q4.22

### ANNEX 5.1 LIST OF ASSETS

**List of tangible personal property requiring USAID prior approval: Type I- items more than one year and a per-unit acquisition cost which equals or exceeds \$5k)**

Description	Type of Assets	Serial number	Acquisition costs	Date acquisition	Organizations
Vehicle 4x4	Vehicle	4,336,075	\$49,397.59	28/07/18	ODDIT TOAMASINA
Vehicle 4x4	Vehicle	4,336,101	\$49,397.59	28/07/18	CRS TOAMASINA
Moto	Vehicle	3GX-166295	\$5,217.39	09/03/20	Caritas Antsirabe
Moto	Vehicle	3GX-166298	\$5,217.39	09/03/20	Caritas Antsirabe
Voiture ISUZU Dmax	Vehicle		\$36,002	29/05/18	WaterAid Alaotra-Mangoro
VOITURE PICKUP 4X4 TOYOTA HILUX	Vehicle	chassis n° MR0KB8CD3J1203932 moteur n° 2GD8217259	\$32,708	29/05/18	CARE – Amoron'Il Mania
FORD RANGER double cabine 4x4	Vehicle	chassis n° 6FPPXXMJ2JB30879 moteur n° SA2HPJB30879	\$35,184	05/04/21	CARE - Manakara
VEHICULE TOYOTA HILUX	Vehicle	MRODB69G0010261	\$31,650.00	15/05/18	CARE – Haute Matsiatra
Land Cruiser HZJ76L - RKMRS	Vehicle	Chassis n° JTEEB71J807045707 Moteur : 091 1457	\$53,750.00	02/10/19	CARE - PCT
<b>Total</b>			<b>\$154,110.15</b>		

<p><b>Rural Access to New Opportunities in Water, Sanitation, and Hygiene</b></p> <p><b>Cooperative Agreement No:</b> AID-687-A-17-00002</p> <p><b>Période :</b> 15 June 2017 to 15 June 2023</p>	
<p style="text-align: center;"><b>GUIDANCE</b></p> <p style="text-align: center;"><b>Disposal plan</b></p>	<p><b>Version # 01</b></p> <p><b>June 2022</b></p>

## ANNEX 5.2 CONSORTIUM DISPOSAL GUIDELINES

### 1. Introduction

This guidance covers the disposal process assets acquired by the RANO WASH Consortium since June 15, 2017. The disposal of these assets will be carried out until June 2023.

The purpose of this guidance is to (i) provide adequate control systems to the assets management of the RANO WASH project and (ii) provide instructions to the responsible for each organization for the assets disposal.

After reviewing each organization's policy, through an exchange meeting with all consortium members on June 20, 2022. This harmonized guide will ensure consistency and transparency of the asset management process and compliance with USAID policy and the Sub Grant Agreement. It is mandatory to use the standardized "Asset Register" form attached to this guide to facilitate review and validation.

### 2. Role and responsibilities

#### ❖ Chief of Party (COP)

The Chief of Party has the ultimate responsibility for ensuring the overall effectiveness of the asset management function within the RANO WASH Consortium. Its responsibilities are:

- ✓ Ensuring that internal controls within the RANO WASH project and accountability practices are in place and effective.
- ✓ highlighting the importance of the asset management function within the consortium.
- ✓ Validating all asset liquidation before requesting approval from USAID.

#### ❖ Consortium members

Responsibilities of each consortium member are:

- ✓ Ensuring that the policies and procedures detailed in this guide are applied appropriately and all documents related to the purchase, transfer and disposal of RANO WASH project assets are complete, available, accurate and up-to-date;
- ✓ Updating and approving, according to their internal process and validation, the asset registers in Appendix 1 and the transfer contract in Appendix 2 in the respect of the schedule in point 7 " Schedule";
- ✓ implementing of internal control measures to ensure the completeness, accuracy and correct valuation of the assets reported in the asset register and the transfer contract. This internal control includes the declaration and documentation of goods/equipment lost, stolen, damaged or unusable.



### 3. Definition and Type of assets

In reference to USAID regulation « <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200?toc=1> ».

Definition of acquisition cost: The cost of the asset including the cost to ready the asset for its intended use. Acquisition cost for equipment, for example, means the net invoice price of the equipment, including the cost of any modifications, attachments, accessories, or auxiliary apparatus necessary to make it usable for the purpose for which it is acquired.

It may include ancillary charges such as taxes, duty, insurance, freight and installation costs in the acquisition costs and added in the calculation of the acquisition cost.

There are three types of assets:

#### ◆ TYPE 1 - Tangible personal property.

It includes equipment and information technology systems having a useful life of **more than one year and a per-unit acquisition cost** which **equals or exceeds** the lesser of the capitalization level established by the non-Federal entity (CARE and Partners) for financial statement purposes, or **\$5,000**.

- Reference USAID 2CFR 200.1 §200.313 §200.439 Equipment.
  - Example: electro chlorinator, car

#### ◆ TYPE 2 – OFFICE EQUIPMENT AND OTHER PROPERTY

It includes all tangible personal property other than those described in the definition of equipment in type 1 section above. A computing device is a supply if the acquisition cost is less than the lesser of the capitalization level established by the non-Federal entity for financial statement purposes or \$5,000, regardless of the length of its useful life.

- Reference USAID 2CFR 200.1 Supplies: - §200.314 - §200.453 Materials and Supplies.
  - Example: Bicycle, Motorcycle, Laptop, Printer, Phone, Tablet, Furniture

#### ◆ TYPE 3 – REAL PROPERTY

- It includes land, including land improvements, structures and appurtenances thereto, but excludes moveable machinery and equipment. Reference USAID 2CFR 200.1 Real property. This category is not applicable to the RANO WASH project and will not be considered in this guidance.

All other items which do not meet the definitions of Type 1, Type 2 and Type 3 will not be inventoried unless required by the organization's internal policy.

### 4. Disposal Method

Title to the equipment, materials, and furnishings is vested in the RANO WASH project upon acquisition. The consortium member may:

#### ▪ RETAIN ASSETS

- Assets with a per unit acquisition cost under \$5,000 may be retained by the organization without further obligation to USAID.
- The Fair Market Value is used for the valuation of the assets at the time of disposition for USAID approval.

#### ▪ TRANSFER ASSETS

- The property will be transferred to certain recipients (see table below). In this case, the recipient must use the property to continue the project's activities with the Ministry, the implementing partners, and the municipalities in the project's intervention zones.

#### ▪ DESTROY ASSETS

- In this case, the asset becomes obsolete, impossible to maintain or repair. The method of destruction is used and each organization follow their internal policies.

#### ▪ SELL ASSETS

- This type of disposition is not applicable to the RANO WASH project and therefore not considered in this guidance.

## 5. Disposal process

The following steps will be taken to facilitate the disposition process based on the physical inventories of assets, reconciliation with financial records and reports, validation of asset assignment, and request for approval from the donor, USAID:

1. Update of the asset register by consortium member.
2. Reconciliation of the register with the financial reports and the transaction listing.
3. Physical inventory of assets by consortium members.
4. Reconciliation of the physical inventory and the register by the consortium members.
5. Proposal of the disposal plan by filling up the « Assets Register » by the consortium members.
6. Internal validation of the proposed liquidation plan by the Consortium member.
7. Review and feedback from PCT to Consortium members.
8. Validation by Chief of Party of the final version.
9. Inform USAID's mission on the guidance and the list of disposition.
10. Request for approval process with USAID of assets with a per unit fair market value above \$5,000.
11. Implementation of the approval, including the collection of evidence for the disposition.

Ensure the preparation of the assets before disposal such as: remove inventory numbers, keep clean, attach the technical specifications, inform the final recipient about duties and taxes, include in the projection the budget for packaging and transportation, consider in the planning the time for the backup and formatting of computer equipment.

## 6. Use of assets and recipient proposal for transfer of assets/equipment

For this disposal, assets will be grouped by the expected use of the assets to ensure continuity of activities after the RANO WASH project phaseout (SE&AM, etc.). This expected use and proposed recipient is summarized in the table below :

Purpose	Proposed final recipient	Items	
SE&AM/monitoring services	Municipality/STEAH/DRE AH/ WSP	Package 1_Computing devices	Central Unit
			Screen
			Mouse
			Keyboard
			Inverter
			Powerbank
			Photocopier
			External hard drive
			Scanner
		Printer	
		Package 2_Soalr panel	Solar panel
			Converter
			Regulator
			Battery
Electrical distribution box			



Purpose	Proposed final recipient	Items	
			Circuit breaker
			Cable
			Controller
			GPS
			Solar equipment
	Municipality/STEAH	Package 3_ Construction monitoring tools	Bicycle
		Decameter	
		Package 4_ICT4D	Tablet
	Smartphone		
MEAH/DREAH/Municipality/implementing partner/private sector for their office	Package 5_Office equipment	Office table	
		Office chair	
		Wardrobe, pedestal	
Water treatment	Municipality/ WSP	Package 6_ Water treatment kit	Electrochlorinator kit (with solar panel and optional: regulator, converter, canister or case, battery)
Photovoltaic electrochlorinator kit			
Kit for Free Chlorine Colorimeter (Hanna)			
Chlorine+ Exact Z			
Pressure transducer			
Water quality test	Municipality/WSP	Package 7_ Water quality test kit	Delagua test kit
Palintest test kit			
Ph meter test kit			
Turbidimeter test kit			
Elite pocket water analysis kit ph/conductivity/dissolved salts/salinity brand EUTECH			
Pressure gauge type SS/Br 1/8", 2-1/2" NPT detection limit 0-160 PSI			
Turbidimeter tube (40" or 1 meter)			

Purpose	Proposed final recipient	Items	
			Turbidimeter Photometer HC Iron Analysis Kit - HI721, Hanna Low concentration fluorine test kit type HC - HI729 Low concentration Nitrite test kit type HI-707 TDS, EC, Temp test kit Disk comparator test Fluorine
Geolocation of water points	WSP	Package 8_GPS	Garmin extrex 10 GPS
Water Monitoring	Municipality / WSP	Package 9_ Remote water monitoring device	Remote water level monitoring device (prototype)
Temporary water distribution	Municipality/ WSP	Package 10_Smartape	Smartape
Construction of latrine	Local mason	Package 11_ Masonry tool	DSP Mould
Work tool for private sector investment	Seamstress	Package 12_ Work tool for local seamstresses	Sewing machine
Accountability mechanism	Municipality	Package 13_ Accountability Tool	Idea Box
Management and coordination	Consortium or implementing partner, DREAH, MEAH, private sector	Package 14_ Computer accessory to ensure coordination	laptop, video projector; speaker, video conference
			WIFI router, jabra, wifi router, stabilizer, monitor, UPS, internet server, video projector
			Mobile sound system
		Package 15_ Two-wheeled vehicles	Motorcycle
		Package 16_ Four-wheeled vehicles	Car (4x4)
Lot 17_ Miscellaneous small equipments	Fridge		

**7. Timeline**

<u>Description</u>	<u>Juil.22</u>	<u>Aug.22</u>	<u>Sept.22</u>	<u>Oct.22</u>	<u>Nov.22</u>	<u>Dec.22</u>	<u>Jan.23</u>	<u>Feb.23</u>
To complete the asset registers								
To reconcile the asset registers vs financial reports								
To receive the signed version from consortium for PCT review and feedback								
To share to USAID mission the guidance and list of assets with a fair market value above \$5,000								
To approve the final version (Chief of Party)								
To send a letter request for approval to USAID of the list of assets with a fair market value above \$5,000								
To implement the approval and collect the evidence								

**Focal point at PCT:**

To: Daniel Rakotovao to [Daniel.Rakotovao@care.org](mailto:Daniel.Rakotovao@care.org)

Cc: Rija Rakotondrasanjy to [Rija.Rakotondrasanjy@care.org](mailto:Rija.Rakotondrasanjy@care.org); Sylvie Ramandrosoa to [Sylvie.Ramandrosoa@care.org](mailto:Sylvie.Ramandrosoa@care.org)

## 8. Annexes

### Annex I. Extract from Electronic Code of Federal Regulations\_ e cfr 200

2 CFR 200.313

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#### Title 2 - Grants and Agreements

#### Subtitle A - Office of Management and Budget Guidance for Grants and Agreements

#### Chapter II - Office of Management and Budget Guidance

#### Part 200 - Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards

**Authority:** 31 U.S.C. 503

**Source:** 78 FR 78608, Dec. 26, 2013, unless otherwise noted.

#### Subpart D - Post Federal Award Requirements

**Source:** 85 FR 49543, Aug. 13, 2020, unless otherwise noted.

#### Property Standards

#### § 200.313 Equipment.

See also § 200.439.

(a) *Title.* Subject to the requirements and conditions set forth in this section, title to equipment acquired under a Federal award will vest upon acquisition in the non-Federal entity. Unless a statute specifically authorizes the Federal agency to vest title in the non-Federal entity without further responsibility to the Federal Government, and the Federal agency elects to do so, the title must be a conditional title. Title must vest in the non-Federal entity subject to the following conditions:

(1) Use the equipment for the authorized purposes of the project during the period of performance, or until the property is no longer needed for the purposes of the project.

(2) Not encumber the property without approval of the Federal awarding agency or pass-through entity.

(3) Use and dispose of the property in accordance with paragraphs (b), (c), and (e) of this section.

(b) *General.* A state must use, manage and dispose of equipment acquired under a Federal award by the state in accordance with state laws and procedures. Other non-Federal entities must follow paragraphs (c) through (e) of this section.

(c) *Use.*

(1) Equipment must be used by the non-Federal entity in the program or project for which it was acquired as long as needed, whether or not the project or program continues to be supported by the Federal award, and the non-Federal entity must not encumber the property without prior approval of the Federal awarding agency. The Federal awarding agency may require the submission of the applicable common form for equipment. When no longer needed for the original program or project, the equipment may be used in other activities supported by the Federal awarding agency, in the following order of priority:

(i) Activities under a Federal award from the Federal awarding agency which funded the original program or project, then

(ii) Activities under Federal awards from other Federal awarding agencies. This includes consolidated equipment for information technology systems.

2 CFR 200.313(c)(1)(ii) (enhanced display)

- (2) During the time that equipment is used on the project or program for which it was acquired, the non-Federal entity must also make equipment available for use on other projects or programs currently or previously supported by the Federal Government, provided that such use will not interfere with the work on the projects or program for which it was originally acquired. First preference for other use must be given to other programs or projects supported by Federal awarding agency that financed the equipment and second preference must be given to programs or projects under Federal awards from other Federal awarding agencies. Use for non-federally-funded programs or projects is also permissible. User fees should be considered if appropriate.
- (3) Notwithstanding the encouragement in § 200.307 to earn program income, the non-Federal entity must not use equipment acquired with the Federal award to provide services for a fee that is less than private companies charge for equivalent services unless specifically authorized by Federal statute for as long as the Federal Government retains an interest in the equipment.
- (4) When acquiring replacement equipment, the non-Federal entity may use the equipment to be replaced as a trade-in or sell the property and use the proceeds to offset the cost of the replacement property.

(d) *Management requirements.* Procedures for managing equipment (including replacement equipment), whether acquired in whole or in part under a Federal award, until disposition takes place will, as a minimum, meet the following requirements:

- (1) Property records must be maintained that include a description of the property, a serial number or other identification number, the source of funding for the property (including the FAIN), who holds title, the acquisition date, and cost of the property, percentage of Federal participation in the project costs for the Federal award under which the property was acquired, the location, use and condition of the property, and any ultimate disposition data including the date of disposal and sale price of the property.
- (2) A physical inventory of the property must be taken and the results reconciled with the property records at least once every two years.
- (3) A control system must be developed to ensure adequate safeguards to prevent loss, damage, or theft of the property. Any loss, damage, or theft must be investigated.
- (4) Adequate maintenance procedures must be developed to keep the property in good condition.
- (5) If the non-Federal entity is authorized (5) or required to sell the property, proper sales procedures must be established to ensure the highest possible return.

(e) *Disposition.* When original or replacement equipment acquired under a Federal award is no longer needed for the original project or program or for other activities currently or previously supported by a Federal awarding agency, except as otherwise provided in Federal statutes, regulations, or Federal awarding agency disposition instructions, the non-Federal entity must request disposition instructions from the Federal awarding agency if required by the terms and conditions of the Federal award. Disposition of the equipment will be made as follows, in accordance with Federal awarding agency disposition instructions:

- (1) Items of equipment with a current per unit fair market value of \$5,000 or less may be retained, sold or otherwise disposed of with no further responsibility to the Federal awarding agency.
- (2) Except as provided in § 200.312(b), or if the Federal awarding agency fails to provide requested disposition instructions within 120 days, items of equipment with a current per-unit fair market value in excess of \$5,000 may be retained by the non-Federal entity or sold. The Federal awarding agency

**2 CFR 200.313(e)(2) (enhanced display)**

is entitled to an amount calculated by multiplying the current market value or proceeds from sale by the Federal awarding agency's percentage of participation in the cost of the original purchase. If the equipment is sold, the Federal awarding agency may permit the non-Federal entity to deduct and retain from the Federal share \$500 or ten percent of the proceeds, whichever is less, for its selling and handling expenses.

(3) The non-Federal entity may transfer title to the property to the Federal Government or to an eligible third party provided that, in such cases, the non-Federal entity must be entitled to compensation for its attributable percentage of the current fair market value of the property.

(4) In cases where a non-Federal entity fails to take appropriate disposition actions, the Federal awarding agency may direct the non-Federal entity to take disposition actions.

**2 CFR 200.313(e)(4) (enhanced display)**

Displaying title 2, up to date as of 8/31/2022. Title 2 was last amended 5/19/2022. [view historical versions](#)

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200.314

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**§ 200.314 Supplies.**  
See also § 200.453.

(a) Title to supplies will vest in the non-Federal entity upon acquisition. If there is a residual inventory of unused supplies exceeding \$5,000 in total aggregate value upon termination or completion of the project or program and the supplies are not needed for any other Federal award, the non-Federal entity must retain the supplies for use on other activities or sell them, but must, in either case, compensate the Federal Government for its share. The amount of compensation must be computed in the same manner as for equipment. See § 200.313 (e)(2) for the calculation methodology.

(b) As long as the Federal Government retains an interest in the supplies, the non-Federal entity must not use supplies acquired under a Federal award to provide services to other organizations for a fee that is less than private companies charge for equivalent services, unless specifically authorized by Federal statute.

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### § 200.439 Equipment and other capital expenditures.

- (a) See § 200.1 for the definitions of *capital expenditures*, *equipment*, *special purpose equipment*, *general purpose equipment*, *acquisition cost*, and *capital assets*.
- (b) The following rules of allowability must apply to equipment and other capital expenditures:
  - (1) Capital expenditures for general purpose equipment, buildings, and land are unallowable as direct charges, except with the prior written approval of the Federal awarding agency or pass-through entity.
  - (2) Capital expenditures for special purpose equipment are allowable as direct costs, provided that items with a unit cost of \$5,000 or more have the prior written approval of the Federal awarding agency or pass-through entity.
  - (3) Capital expenditures for improvements to land, buildings, or equipment which materially increase their value or useful life are unallowable as a direct cost except with the prior written approval of the Federal awarding agency, or pass-through entity. See § 200.436, for rules on the allowability of depreciation on buildings, capital improvements, and equipment. See also § 200.465.

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General Provisions... a direct charge pursuant to paragraphs (b)(1) through (3) of this section, capital expenditures will be charged in the period in which the expenditure is incurred, or as otherwise determined appropriate and negotiated with the Federal awarding agency.

- (5) The unamortized portion of any equipment written off as a result of a change in capitalization levels may be recovered by continuing to claim the otherwise allowable depreciation on the equipment, or by amortizing the amount to be written off over a period of years negotiated with the Federal cognizant agency for indirect cost.
- (6) Cost of equipment disposal. If the non-Federal entity is instructed by the Federal awarding agency to otherwise dispose of or transfer the equipment the costs of such disposal or transfer are allowable.
- (7) Equipment and other capital expenditures are unallowable as indirect costs. See § 200.436.

[78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75886, Dec. 19, 2014; 85 FR 49568, Aug. 13, 2020]

**DISPOSAL PLAN UPDATE CARE REGION AND NATIONAL PARTNERS - ITEMS <5k USD VALUE – Q4.FY22 UPDATE**

CARE et ses régions	Conserver par CARE MDG	Partenaire de mise en œuvre (Ny Tanintsika, Miarintsoa et AIM)	Communes	CRS	WaterAid	DREAH	BushProof	Sandandrano	GIC	ATEAH	STEAH	Préfecture Manakara	OSCEAH	DREN	Association ML CL	DRPPSPF	DREDD	MEAH	Grand Total
Mobilier de bureau	88	54	129			16			13			10	6	3					319
Voiture	2																	1	3
Moto	4	20				3						1	2	2			1		33
Ordinateur	19	16	5			7							1	2	3				53
Photocopieuse		1																	1
Vidéo projecteur	2	2				3						1		1					9
Imprimante	4	9				2										1			16
Ecran d'ordinateur	4	3				1													8
Appareil photo	2	2				1													5
Téléphone	12																		12
Groupe électrogène	1					1													2
GPS	1	1				1			3										6
Vélo			10																10
Tablette	1					1													2
Ordinateur destkop		1																	1
Unité centrale	4	2				1													7



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CARE et ses régions	Conserver par CARE MDG	Partenaire de mise en œuvre (Ny Tanintsika, Miarintsoa et AIM)	Communes	CRS	WaterAid	DREAH	BushProof	Sandandrano	GIC	ATEAH	STEAH	Préfecture Manakara	OSCEAH	DREN	Association ML CL	DRPPSPF	DREDD	MEAH	Grand Total
Divers équipement informatique (micro, baffle, scanner,..)	19	33				9			1							1			63
Divers matériel et équipement (ventilateur, frigo, extincteur, cafetière...)	4	7				1						1			2				15
<b>Total</b>	<b>167</b>	<b>151</b>	<b>144</b>	<b>0</b>	<b>0</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>9</b>	<b>8</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>565</b>

REGION AMORON'I MANIA ITEMS <5K USD VALUE – Q4.FY22 UPDATE

Catégorie	Destinataire des actifs localisés au niveau du Bureau Tana	Destinataire des actifs localisés au niveau du partenaire de mise en œuvre (AIM)	Destinataire des actifs localisés au niveau des régions
Equipement informatique	N/A	- Transférer au niveau de <b>AIM</b> : 3 laptops, 1 écran led, 1 unité central, 1 machine à reliure, 1 scanner, 1 imprimante, 1 appareil photo, 1 vidéo projecteur, 1 stabilisateur	- Conserver par <b>CARE MDG</b> : 5 laptops, 2 routeurs, 1 photocopieur, 1 scanner, 1 écran de projection, 1 vidéo projecteur, 1 appareil photo numérique, 1 sono mobil, 1 Jabra speaker - Transférer à la commune rurale Ambositra : 1 laptop - Transférer <b>DREAH</b> : 3 laptops

Catégorie	Destinataire des actifs localisés au niveau du Bureau Tana	Destinataire des actifs localisés au niveau du partenaire de mise en œuvre (AIM)	Destinataire des actifs localisés au niveau des régions	
			- Transférer <b>DREN</b> : 2 laptops, 1 vidéo projecteur	
<b>Materiel et equipement</b>	N/A	- Transférer au niveau de <b>AIM</b> : 2 casques, 3 prises multiples	- Conserver par <b>CARE MDG</b> : 1 réfrigérateur, 1 boîte à idée, 1 GPS, 1 kit de test de qualité d'eau	
			- Transférer aux <b>couturières locales</b> : 1 machine à coudre	
<b>Materiel et mobilier</b>	N/A	- Transférer au niveau de <b>AIM</b> : 5 chaises	- Conserver par <b>CARE MDG</b> : 12 étagères, 37 chaises, 11 tables, 7 tableaux blanc, 8 armoires, 3 bureaux, 4 fauteuils, 1 tableau d'affichage, 1 cloison en bois, 1 tiroir, 1 coffre-fort	
			- Transférer aux <b>communes rurales</b> : 12 chaises, 3 tables, 3 fauteuils, 4 armoires, 2 bureau, 1 tableau blanc, 1 étagère	
			- Transférer <b>DREAH</b> : 5 chaises, 1 étagère	- Transférer <b>DREAH</b> : 1 tableau blanc
				- Transférer <b>DREN</b> : 1 table, 1 tableau blanc, 1 chaise
<b>Materiel roulant (&lt; à \$ 5,000)</b>	N/A	- Transférer au niveau de <b>AIM</b> : 10 vélos	- Conserver par <b>CARE MDG</b> : 3 motos Kawasaki	

Catégorie	Destinataire des actifs localisés au niveau du Bureau Tana	Destinataire des actifs localisés au niveau du partenaire de mise en œuvre (AIM)	Destinataire des actifs localisés au niveau des régions
			- Transférer <b>DREAH</b> : 1 moto Kawasaki
			- Transférer <b>DREN</b> : 1 moto Kawasaki
			- Transférer AIM : 1 moto Kawasaki
<b>Outillages</b>	N/A	N/A	- Transférer aux <b>maçons locaux</b> : 1 moule dalle Sanplat

**REGION HAUTE MATSIATRA ITEMS <5K USD VALUE – Q4.FY22 UPDATE**

Catégorie	Destinataire des biens au niveau du bureau régional	Destinataire des biens au niveau de l'ONG MIRANTSOA
<b>Equipement informatique</b>	- Conserver par <b>CARE MDG</b> : 3 disques dur, 1 JABRA, 1 vidéo projecteur, 1 imprimante, 1 copieur	- Conserver en totalité par l' <b>ONG MIARINTSOA</b> : 8 laptops, 1 clavier, 1 écran ordinateur de bureau, 1 unité centrale, 5 imprimantes, 1 flybox, 2 enceintes, 1 GPS, 2 interphones
	- Transférer au niveau des <b>communes ruraux</b> : 4 laptops	
	- Transférer aux <b>associations de maçons locaux et couturières locales</b> : 3 laptops	
	- Transférer au niveau de la <b>DREAH</b> : 2 laptops, 1 GPS, 1 vidéo projecteur, 1 unité central, 1 moniteur, 1 imprimante, 1 scanner, 1 appareil photo, 1 fly box orange, 1 écran pour video projecteur	

Catégorie	Destinataire des biens au niveau du bureau régional	Destinataire des biens au niveau de l'ONG MIRANTSOA
	- Transférer au niveau de la <b>Direction Régionale de la Population, de la protection Sociale et de la Promotion de la Femme</b> : 1 imprimante	
	- Transférer au niveau de l' <b>OSCEAH</b> : 1 laptop	
	- Transférer au niveau de la <b>région</b> : 1 unité central, 1 moniteur, 1 onduleur	

**VATOVAVY & FITOFIVANY REGION ITEMS <5K USD VALUE – Q4.FY22 UPDATE**

Catégorie	Destinataire des actifs localisés au niveau du Bureau Tana	Destinataire des actifs localisés au niveau du partenaire de mise en œuvre (NY TANINTSIKA)	Destinataire des actifs localisés au niveau des régions
<b>Equipement informatique</b>	N/A	- Transférer au niveau de <b>NY TANINTSIKA</b> : 5 laptops, 3 box modem orange, 2 disques dur externes, 2 lecteurs externes, 2 scanners, 2 imprimantes, 1 ordinateur de bureau Dell, 1 moniteur Dell, 1 photocopieuse, 1 appareil photo, 1 video projecteur	- Conserver par <b>CARE MDG</b> : 11 laptops, 2 écrans DELL, 3 unités centrales, 1 moniteur, 2 flybox, 3 switch D-Link, 1 disque dur externe, 1 appareil photo, 1 wifi orange
		- Conserver par <b>CARE MDG</b> : 3 laptops, 1 baffle	- Transférer <b>DREAH</b> : 2 laptops, 5 onduleurs, 1 imprimante, 1 video projecteur, 1 disque dur externe, 1 graveur DVD externe, 1 haut parleur JABRA
			- Transférer aux <b>GIC</b> : 3 GPS Garmin, 1 stabilisateur

Catégorie	Destinataire des actifs localisés au niveau du Bureau Tana	Destinataire des actifs localisés au niveau du partenaire de mise en œuvre (NY TANINTSIKA)	Destinataire des actifs localisés au niveau des régions
			- Transférer à la <b>préfecture Manakara</b> : 1 copieur, 1 vidéo projecteur
<b>Materiel et equipement</b>	N/A	- Transférer au niveau de <b>NY TANINTSIKA</b> : 4 mégaphones	- Conserver par <b>CARE MDG</b> : 1 réfrigérateur, 1 groupe électrogène
<b>Materiel et mobilier</b>	N/A	- Transférer au niveau de <b>NY TANINTSIKA</b> : 40 chaises, 6 tables, 1 étagère	- Transférer <b>DREAH</b> : 5 armoires
			- Transférer aux <b>Communes</b> :5 armoires, 9 chaises, 2 tables, 2 fauteuils de bureau
			- Transférer aux GIC : 4 chaises, 9 tables
			- Transférer à la <b>préfecture Manakara</b> : 10 chaises
<b>Materiel roulant (&lt; à \$ 5,000)</b>	N/A	- Transférer au niveau de <b>NY TANINTSIKA</b> : 7 motos KAWASAKI	- Transférer <b>DREDD</b> : 1 moto Honda
			- Transférer <b>DREN</b> : 1 moto Honda
			- Transférer à la <b>préfecture Manakara</b> : 1 moto Honda
			- Conserver par <b>CARE MDG</b> : 1 moto Honda

**BUSHPROOF ITEMS <5K USD VALUE – Q4.FY22 UPDATE**




<b>Catégorie</b>	<b>Destinataire des actifs localisés au niveau de BushProof</b>
<b>Equipement informatique</b>	- Transférer à <b>BushProof</b> : 17 laptops, 1 imprimante, 1 video projecteur
<b>Materiel et equipement</b>	- Transférer à <b>BushProof</b> : 9 téléphones, 1 enceinte Bose
<b>Materiel et mobilier</b>	N/A
<b>Materiel roulant (&lt; à \$ 5,000)</b>	N/A

**SANDANDRANO ITEMS <5K USD VALUE – Q4.FY22 UPDATE**

<b>Catégorie</b>	<b>Destinataire des actifs localisés au niveau de Sandandrano</b>
<b>Equipement informatique</b>	- Transférer au niveau de <b>Sandandrano</b> : 6 appareils photos, 6 GPS, 2 imprimantes, 3 tablettes, 5 laptops, 3 téléphones
<b>Materiel et equipement</b>	N/A
<b>Materiel et mobilier</b>	N/A
<b>Materiel roulant (&lt; à \$ 5,000)</b>	N/A

## ANNEX 6. PROGRAM IMPLEMENTATION PLAN – Q4.22 UPDATE

### LEGEND

Legend		Planned Activities
		Actual Progress
		Planned Activities & Actual Progress

Status	Legend
<b>Rescheduled</b>	Deliverable rescheduled
<b>Not Started</b>	Activity not started
<b>On Track</b>	Deliverable meeting plan
<b>Potential Risks / Delays</b>	Slightly off-track requiring additional attention and/or resources
<b>Risks / Roadblocks</b>	Significantly off-track requiring substantial senior-level attention and/or resources
<b>Completed</b>	Deliverable closed; plan met
<b>On Hold</b>	Deliverable on hold, not active
<b>Canceled</b>	Deliverable canceled

## PROJECT MANAGEMENT

Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
	<b>PROJECT MANAGEMENT</b>														
National	Biannual review workshop	Completed	Learning event with WASH stakeholders												
Regional	Quarterly review workshop	Completed													
National	Steering committee meeting	Completed													
National	Workshop for the preparation of the project closure														
National	Project closure activities														
National	Participation on international days celebration														
National	Field visit with the MEAH		Water systems inauguration with the Ministry team												



**SOI: GOVERNANCE**

Activity Description	Status	Remarks	FY 2022											
			Q1			Q2			Q3			Q4		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SOI. Governance and monitoring of water and sanitation strengthened for sustainable and equitable WASH services</b>														
<b>IRI.1 Strengthened government and stakeholder commitment and accountability to sector development</b>														
Output I.1.1.	Sector coordination and learning mechanisms operating effectively under strong national leadership													
Act I.1.1.1	Facilitate with MEEH thematic group discussions	On track												
Act I.1.1.2	Mobilize and build capacity of WASH private sector groups to discuss on key needs of private sector development	On track												
Act I.1.1.3	Mobilize and build capacity of WASH CSOs to develop advocacy plan responding to their key priorities	Completed												
Output I.1.2.	Ministry in charge of WASH institutional capacity developed to meet strategic needs													

Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SOI. Governance and monitoring of water and sanitation strengthened for sustainable and equitable WASH services</b>															
Act 1.1.2.1	Conduct study/workshop to refine and apply tools for regional and national planning, resource analysis and financing strategies, and sector performance monitoring	On track													
Act 1.1.2.2	Conduct study/workshop to develop the National Investment Plan	Not started	The government council has validated the policy but not yet by the national assembly												
<b>IRI.2 Improved sector monitoring, analysis and learning, influencing policy</b>															
Output 1.2.1.	SE&AM strengthened and extended														
Act 1.2.1.1	Organize / facilitate meetings with DREEH and SRMo to update SE&AM and to evaluate progress	On track	In preparation for the SE&AM transition. This activity will probably be reinforced in FY23												

Activity Description	Status	Remarks	FY 2022												
			Q1			Q2			Q3			Q4			
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	
<b>SOI. Governance and monitoring of water and sanitation strengthened for sustainable and equitable WASH services</b>															
	periodically at the regional level														
Act 1.2.1.2	Train and coach Communes to pilot the SE&AM ICT4D platform	Completed	More coaching have to be done during FY23												
Act 1.2.1.3	Continue to train and coach ministry staff to improve the sector's monitoring and evaluation system and mobilize stakeholders to ensure their respective roles in the WASH sector monitoring system;	On track	Through regional SE&AM training												
Act 1.2.1.4	Support the MEEH to conduct the WASH sectorial review taking into account the assessment	Completed													

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Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SOI. Governance and monitoring of water and sanitation strengthened for sustainable and equitable WASH services</b>															
	results at national level														
Act 1.2.1.5	Build the capacity of communes and SLCs to interpret data and use it to strengthen decision-making processes	Completed	Trough training STEAH												
Act 1.2.1.6	Provide technical and logistic support to the DREAH for the operationalization of STEFI in the intervention regions	On track													
Output 1.2.2	Learning agenda implemented to increase and better regulate private sector engagement in WASH														
Act 1.2.2.1	Facilitate learning events for the RANO WASH project on PPP and STEAH	On track													

Activity Description	Status	Remarks	FY 2022											
			Q1			Q2			Q3			Q4		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SOI. Governance and monitoring of water and sanitation strengthened for sustainable and equitable WASH services</b>														
Act 1.2.2.2	Work with the DREEH to feed the digital library with the PPP learning documents and events deliverables	Potential Risks / Delays	The activity started but was still sporadic.											
<b>IRI.3 Strengthened sub-national systems</b>														
Output 1.3.1	Decentralized resources available for sustained WASH service delivery													
Act 1.3.1.1	Mobilize WASH actors at regional level to assess the progress on WASH system and to define strategy to move forward	On track	Trough SRMO Meeting											
Act 1.3.1.2	Coach DREEH to ensure STEAH and commune capacity building	On track												
Act 1.3.1.3	Coach SRB, SRI and district to train and coach commune on	On track												

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Activity Description	Status	Remarks	FY 2022											
			Q1			Q2			Q3			Q4		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SOI. Governance and monitoring of water and sanitation strengthened for sustainable and equitable WASH services</b>														
	budget planning and mobilization local resources													
Output 1.3.2	Commune management capacities strengthened for WASH service delivery													
Act: 1.3.2.1	Prepare communes to undertake PCDEAH (mobilization of private sector, improvement of the document);	On track	Only the Vakinakaratra region have some pending PCDEAH											
Act: 1.3.2.2	Accompany the DREAH and the District to implement actions to raise awareness, monitor, and support communes in developing access to WASH at the local level.	On track	RANO WASH continues coaching DREAH and District for Regular support activities.											

Activity Description	Status	Remarks	FY 2022												
			Q1			Q2			Q3			Q4			
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	
<b>SOI. Governance and monitoring of water and sanitation strengthened for sustainable and equitable WASH services</b>															
Act: 1.3.2.3	Continue to test a financial planning method in 6 communes to improve cost forecasting for the sustainability of services	On track	The last step is an review of the financial planning by commune with MEAH												
Act: 1.3.2.4	Work with the regional budget department (RBD), the regional tax department (SRI), and the District to implement processes	On track													
<b>IRI.4 Increased community control over WASH services</b>															
Output 1.4.1	Communes and communities with an active civil society, aware of and organized to claim their right to water and sanitation														
Act 1.4.1.1	Support the municipalities to reinforce CSO groups to empower community	Completed													

Activity Description	Status	Remarks	FY 2022												
			Q1			Q2			Q3			Q4			
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	
<b>SOI. Governance and monitoring of water and sanitation strengthened for sustainable and equitable WASH services</b>															
Act: 1.4.1.2	Coach CSOs groups to conduct advocacy, to promote accountability mechanisms	Completed													
Output 1.4.2	110 communes with functional WASH accountability mechanisms														
Act: 1.4.2.1	Train and coach municipalities to set-up SLCs and to use accountability mechanisms	Completed													
Act: 1.4.2.2	Collaborate with the District, region, MID, and DREAHs to identify processes that will strengthen the practice of accountability and effective social dialogue	Potential Risks / Delays													



## SO2 PRIVATE SECTOR ENGAGEMENT

	Description of activity	Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO2. Private sector engagement in WASH service delivery increased and improved.</b>															
<b>IR2.1. Improved WASH products, technologies, services and business models</b>															
Output 2.1.1	A comprehensive WASH market assessment (WMA) strategy developed														
Act 2.1.1.2	compilation of the WASH Market opportunities documents for promotional events with private sector: PCDEAH, commune level data on existing water systems and resources...	Completed													
Output 2.1.2	Regional WASH market development plans developed														
ACT 2.1.2.1	Finalize the two remaining regional WMDP and continue to disseminate the WMDPs in the six regions	On Track													
ACT 2.1.2.2	Learning events with partners	On Track													

	Description of activity	Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO2. Private sector engagement in WASH service delivery increased and improved.</b>															
ACT 2.1.2.3	Implementation of the regional plans aiming to develop WASH markets : Train and coach private sector actors to implement WMDP and marketing plan	On Track	This activity started in Dec.												
ACT 2.1.2.4	Hold national workshop to promote PPP within the WASH sector	Rescheduled													
ACT 2.1.2.5	Hold national workshop for private actors involved in water quality analysis	Rescheduled													
ACT 2.1.2.6	WASH businesses and opportunities events with private sector and communes	Rescheduled													
Output 2.1.3	Type and range of financial products for WASH services and products available and accessible increased														
ACT 2.1.3.2	develop and promote three actors financial relationship: customer-water service provider-financial	Rescheduled	This activity will continue in Q1 FY23												

	Description of activity	Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO2. Private sector engagement in WASH service delivery increased and improved.</b>															
	institution, in order to develop the demand side financial capacity														
ACT 2.1.3.3	provide coaching to water services providers in the conception of their loans and credit process in order to develop the offer side financial capacity	On Track	This activity will continue in Q1FY23												
ACT 2.1.3.4	support VSLA members to initiate and finance a small business in water distribution	On Track													
<b>IR2.2. Improved Design, Construction, and Management of WASH Infrastructure</b>															
Output 2.2.1	Design and construction of sustainable WASH infrastructure improved														
ACT 2.2.1.1	Carry out APS and APD feasibility studies and develop the corresponding ESFs	Completed	APS and APD achieved												
ACT 2.2.1.2	Based on the FY20 CEI results (regional	Completed													

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	Description of activity	Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO2. Private sector engagement in WASH service delivery increased and improved.</b>															
	shortlists), launch restricted tenders to recruit the private operators that will carry out the construction works														
ACT 2.2.1.3	Contract and monitor water supply system construction, operation, and management (large and small systems)	Completed													
ACT 2.2.1.4	Conduct on-the-job training for CAO (Communal tendering committee) members	Completed													
ACT 2.2.1.5	Jointly test and implement market-based sanitation model	On Track													
ACT 2.2.1.6	Develop and implementation marketing and communication strategies to increase number of water connections in	On Track													

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	Description of activity	Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO2. Private sector engagement in WASH service delivery increased and improved.</b>															
	constructed water systems;														
ACT 2.2.1.7	Set up WASH sanitation facility in institutions	Rescheduled													
ACT 2.2.1.8	Assist Communes and WSPs to implement PPP+ activities, including water service extension projects, construction, rehabilitation or extension of water systems, support for the implementation of managed services, community engagement, contracting, scaling-up the water kiosks with tokens, etc	On Track													
ACT 2.2.1.9	Conduct needs/feasibility assessments and roll out PPP pilot for fecal sludge management services.	Rescheduled													

	Description of activity	Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO2. Private sector engagement in WASH service delivery increased and improved.</b>															
ACT 2.2.1.10	Monitor the various key compliance issues applicable to water service delivery: water quality monitoring, resilience to climate change, respect of the environment, etc.;	On Track													
<b>IR 2.3. Strengthened technical &amp; business skills and competencies</b>															
Output 2.3.1	Capacity building for private sector in business systems and technical operations strengthened														
ACT 2.3.1.1	Develop and produce a marketing package for every water system managed by WSP	Rescheduled													
ACT 2.3.1.2	Conduct structural and operational diagnostics for each WSP and provide recommendations	Rescheduled													
ACT 2.3.1.3	provide individual coaching to WSP for the management of their sales force at system level	On Track													

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	Description of activity	Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO2. Private sector engagement in WASH service delivery increased and improved.</b>															
ACT 2.3.1.4	support WSP in full water system investment in rehabilitation and management and return on investment	On Track													
ACT 2.3.1.5	Provide training and coaching on latrines selling and close monitoring of the small business performance of local masons and seamstresses on production of WASH products	Rescheduled													
Output 2.3.2	Professional Associations Development														
ACT 2.3.2.2	Support to professional networks	Rescheduled													

### SO3 BEHAVIOR CHANGE

Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO3. Adoption of healthy behaviors and use of WASH services accelerated</b>															
<b>I.R.3.1. Improved hygiene and sanitation behavior change solutions through applied research</b>															
Output 3.1.1	Behavioral science innovations for WASH BC explored, iterated, evaluated														
Act: 3.1.1.7	Develop and implement the MBS model based on collaboration with iDE														
	Implement phase 2 of MBS model with iDE support (DEVELOP and TEST phase)	On track	The prototyping and field testing are realized.												
	Implement phase 3 of MBS model with iDE support (BUILD TEAMS and TARGET early adopters)	Rescheduled	These two phases are part of the transition phase and will be realized with UNICEF.												
	Implement phase 4 of MBS model (SCALING, TARGETING early majority)	Rescheduled													
Act: 3.1.1.8	Undertake learning activity on ODF Communes	On track	Document is produced and can be seen in Annex												
Act: 3.1.1.9	Inform and guide strategies for improving access to drinking water (barrier analysis report)	Completed													



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Activity Description	Status	Remarks	FY 2022											
			Q1			Q2			Q3			Q4		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO3. Adoption of healthy behaviors and use of WASH services accelerated</b>														
Output 3.1.2	Studies of integrated population, health and environment (PHE) programming models stimulating cross-sectoral collaboration													
Act 3.1.2.4	Participate in national networks on PHE	On track	No national event in this quarter											
Act 3.1.2.5	Establish regional/local cross sectoral partnerships	On track	The exchanges and collaboration at regional level continue											
Act 3.1.2.6	Organize learning events on cross-sectoral partnerships	Rescheduled	The learning is still ongoing and will be realized with PHE network											
Output 3.1.3	WASH-Nutrition linkages researched													
Act 3.1.3.4	Coordinate WASH and nutrition activities at local/regional levels	On track												
Act 3.1.3.5	Continue participation in national platform and initiatives on WASH-nutrition	On track	There was no scheduled sharing program on WASH nutrition in this period											
<b>I.R.3.2 Improved Implementation of WASH Behavior Change at All Levels: Communities, Government, and Private Sector</b>														
Output 3.2.1	WASH BC program coordination improved in RANO WASH regions													

Activity Description	Status	Remarks	FY 2022											
			Q1			Q2			Q3			Q4		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO3. Adoption of healthy behaviors and use of WASH services accelerated</b>														
Act 3.2.1.1	Collaborate with MEAH to coordinate WASH BC activities at the national level	On track	The consultant in charge of the sustainability of WASH services in institutions was hired and started working											
Act 3.2.1.2	Organize and participate in regional platform meetings to share on BC activities (SRMO)	On track												
Output 3.2.2	Innovative CLTS and WASH BC implementation													
Act 3.2.2.8	Coaching local actors on continuing BC activities	On track												
Act 3.2.2.11	Coaching village agents to create new VSLA groups and provide coaching for previous VSLA	On track												
Act 3.2.2.12	Encourage village agents, local actors and local private operators to promote WASHVSLA members to invest in WASH products/services	On track												
Act 3.2.2.13	Provide technical support to local authorities to continue sanitation activities	On track												
Act 3.2.2.14	Support health facilities and schools in providing WASH services including	On track												

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Activity Description	Status	Remarks	FY 2022													
			Q1			Q2			Q3			Q4				
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept		
<b>SO3. Adoption of healthy behaviors and use of WASH services accelerated</b>																
	operations and maintenance, fund mobilization and BC activities															
Act 3.2.2.16	Celebrate and mobilize communities and institutions to foster changes during world days	On track														
Act 3.2.2.17	Evaluation and certification of Village Agents (AV)	On track														
Act 3.2.2.18	Produce financial tools and support Village Agents to use them with their groups	On track														
Act 3.2.2.21	Collaborate with financial institutions to implement linkages for VSLA	On track														
Output 3.2.3	Communication Marketing developed for WASH products and services															
Act 3.2.3.1	Support private operators to implement marketing campaign on WASH products and services	On track														
Act 3.2.3.3	Design and produce marketing tools and materials for products	On track														
<b>IR3.3. Evidence-based WASH BC and hygiene promotion shared to influence policy</b>																

Activity Description	Status	Remarks	FY 2022											
			Q1			Q2			Q3			Q4		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>SO3. Adoption of healthy behaviors and use of WASH services accelerated</b>														
Output 3.3.1	National-level networks, policies and programs engaged for sustainable WASH BC													
Act: 3.3.1.1	Organize learning events on the following topics: ODF Commune, MBS approach, Sustainability of WASH services in institutional settings, community engagement in PPP model;	On track												
Act: 3.3.1.2	Participate in the "Madagasikara Madio" initiative working sessions and orientations	On track												
Act: 3.3.1.4	Participate in learning sessions and sharing workshops with stakeholders at national level	On track	Participation in the sanitation industrial consultation											

**GENDER AND SOCIAL INCLUSION**

Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>Gender and Social Inclusion</b>															
	Transfer responsibilities on gender approaches for the relay structures	Completed													
	Design and produce communication tools on gender mainstreaming and social inclusion	Completed													
	Conduct research and learning on gender activities	Completed													
	Review sessions and jointly define gender-sensitive indicators at SESAM	Completed													
	Continue to support the implementation of the Social Analysis and Action approach in the communes	Completed													
	Scaling up the Social Analysis and Action approach	Completed													
	Organize an advocacy session for women leaders in WASH at the national level	Completed													
	Organize a sharing session of men committed to women's empowerment at the national level	Changed													

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Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>Gender and Social Inclusion</b>															
	Organize a forum for young entrepreneurs to exchange ideas on WASH at the national level	Changed													
	Conducting Gender marker end-line	Ontrack													
	Support of the Ministry of Population for the finalization of the gender policy	Not started	An activity on standby at the Ministry of Population												

**MONITORING, EVALUATION, ACCOUNTABILITY & LEARNING**

Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>MONITORING, EVALUATION, ACCOUNTABILITY &amp; LEARNING</b>															
	MEAL system "refresher" training for TAs / Training on MEAL withdrawal strategy and collection tools for GICs staff and for ATEAH														
Regional	MEAL system "refresher" - Alaotra Mangoro / Training on MEAL withdrawal strategy and collection tools	Completed													
Regional	MEAL system "refresher" - Amoron'i Mania / Training on MEAL withdrawal strategy and collection tools	Completed													
Regional	MEAL system "refresher" - Atsinanana / Training on MEAL withdrawal strategy and collection tools	Completed													
Regional	MEAL system "refresher" - Haute Matsiatra / Training on MEAL withdrawal strategy and collection tools	Completed													
Regional	MEAL system "refresher" - Vakinankaratra / Training on MEAL withdrawal strategy and collection tools	Completed													
Regional	MEAL system "refresher" - Vatovavy et Fitovinany / Training on MEAL withdrawal strategy and collection tools	Completed													
	MEAL system capacity building workshop for supervision teams														
National	MEAL capacity building for PCT Team on dashboard consultation and analysis	Completed													

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Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>MONITORING, EVALUATION, ACCOUNTABILITY &amp; LEARNING</b>															
Regional	MEAL capacity building for supervisors on dashboard consultation and analysis: Alaotra Mangoro	Completed													
Regional	MEAL capacity building for supervisors on dashboard consultation and analysis: Atsinanana	Completed													
Regional	MEAL capacity building for supervisors on dashboard consultation and analysis: Vatovavy Fitovinany	Completed													
Regional	MEAL capacity building for supervisors on dashboard consultation and analysis: Amoron'i Mania	Completed													
Regional	MEAL capacity building for supervisors on dashboard consultation and analysis: Haute Matsiatra	Completed													
Regional	MEAL capacity building for supervisors on dashboard consultation and analysis: Vakinankaratra	Completed													
	Annual beneficiary-based survey and final evaluation														
National	Recruitment of enumerators	Rescheduled													
National	Training of enumerators	Rescheduled													
National / Regional	Field data collection	Rescheduled													



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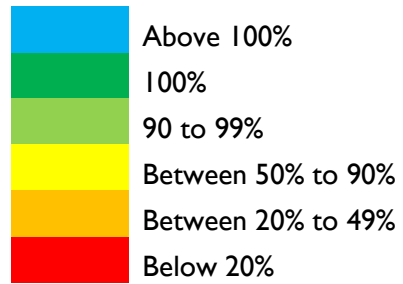
Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>MONITORING, EVALUATION, ACCOUNTABILITY &amp; LEARNING</b>															
National	Results dissemination workshop	Not started													
	<a href="#">Data Quality Assurance</a>														
National / Regional	Data Quality Assessment	On track													
	<a href="#">Learning</a>														
National	Support learning studies	On track													
	<a href="#">MEAL Review</a>														
National	Annual MEAL team review	Completed													
	<a href="#">Field visits to support the operationalization of the MEAL system</a>														
National / Regional	Field visit: monitoring - coaching - internal DQA – filing system in Alaotra Mangoro	On track													
National / Regional	Field visit: monitoring - coaching - internal DQA – filing system in Atsinanana	On track													
National / Regional	Field visit: monitoring - coaching - internal DQA - filing system in Vatovavy Fitovinany	On track													
National / Regional	Field visit: monitoring - coaching - internal DQA - filing system Amoron'i Mania	On track													

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Activity Description		Status	Remarks	FY 2022											
				Q1			Q2			Q3			Q4		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>MONITORING, EVALUATION, ACCOUNTABILITY &amp; LEARNING</b>															
National / Regional	Field visit: monitoring - coaching - internal DQA - filing system Haute Matsiatra	On track													
National / Regional	Field visit: monitoring - coaching - internal DQA - filing system Vakinankaratra	On track													
	<a href="#">ICT4D / Database management</a>														
National	Updating database after CommCare data extraction	On track													
National	Revising results dashboard following programmatic and decision-making needs	On track													
National	Establishment and update of the PBI dashboard according to DHIS2-SE&AM data	Not started													

## ANNEX 7. RANO WASH PROJECT PERFORMANCE REVIEW Q4.22

Legend



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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
<b>Goal: Increase equitable and sustainable access to water, sanitation, and hygiene (WASH) services to maximize their impact on human health and nutrition and the preserve environment in 250 rural communes in Alaotra Mangoro, Amoron'i Mania, Atsinanana, Haute Matsiatra, Vakinankaratra, and Vatovavy Fitovinany regions in Madagascar.</b>													
<b>SO I: Governance and monitoring of water and sanitation strengthened for delivering sustainable WASH services</b>													
I.1		# of intervention communes increasing WASH budget	Annual	80	117	146%	80	117	146%	80	117	146%	Target exceeded due to improved collaboration with Regional Budget Service
I.2	HL.8.4-I	Value of new funding mobilized to the water and sanitation sectors as a result of USG assistance	Annual				\$ 400,000	\$ 424,554	106%	\$1,969,883	\$ 1,794,437	91%	
<b>IRI.1 Strengthened government and stakeholder commitment and accountability to sector development</b>													
I.1.1		National Sector Development Action Plan implemented	Annual				Yellow	Red	Red	Yellow	Red	Red	Pending validation of the National WASH Policy (PNEAH) from the GoM
<b>OP I.1.1 Sector coordination and learning mechanisms operating effectively under strong national leadership</b>													
I.1.1.1		National body for WASH sector coordination operational	Annual				Yellow	Yellow		Yellow	Yellow		6 SRMOs operational with successive sector review for the past 3 years. Resumption of national sector review and coordination workshops.
<b>OP I.1.2 MoWEH institutional capacity developed to meet strategic needs</b>													
<b>IRI.2 Improved sector monitoring, analysis and learning, influencing policy</b>													
I.2.1		% of intervention communes reporting in the national WASH monitoring system (SE&AM)	Annual				86%	96%	112%	86%	96%	112%	
<b>OP I.2.1 SE&amp;AM strengthened and extended</b>													

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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
I.2.1.1		National WASH monitoring system (SE&AM) tracks gender-sensitive data and quality of WASH service provision	Annual				Green	Green		Green	Green		The new DHIS2 system is currently set up to track gender sensitive data and provides information about different service levels. System being updated during the reporting period.
OP 1.2.2 Learning agenda implemented to increase and better regulate private sector engagement in WASH													
<b>IRI.3 Strengthened sub-national systems</b>													
I.3.1	HL8.3-3	# of water and sanitation sector institutions strengthened to manage water resources or improve water supply and sanitation services as a result of USG assistance	Annual				140	262	187%	429	471	110%	
OP 1.3.1 Decentralized resources available for sustained WASH service delivery													
OP 1.3.2 Commune management capacities strengthened for WASH service delivery													
I.3.2.1		# of intervention communes engaging with private sector to provide WASH services	Annual				105	110	105%	105	110	105%	The results of regional WASH forums are starting to emerge
<b>IRI.4 Increased community control over WASH services</b>													
I.4.1		# of WASH users groups operational in intervention communes	Annual	250	357	143%	250	357	143%	250	357	143%	
OP 1.4.1 Communes and communities with an active civil society, aware of and organized to claim their right to water and sanitation													
OP 1.4.2 Communes have functional WASH accountability mechanisms													
I.4.2.1		# of intervention communes with functional WASH accountability mechanisms	Annual	200	202	101%	200	202	101%	200	202	101%	
<b>SO 2: Private sector engagement in WASH service delivery increased and improved</b>													
<b>IR2.1 Improved WASH products, technologies, services and business models</b>													

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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
2.1.1		# of new/improved WASH products and technologies implemented with RANO WASH support	Annual							10	26	260%	This achievement mostly results from PPP+ initiatives of the private sector and the initiative of the unsolicited PPP applications supported by RANO WASH. also the realization of local Masons / KABONE MANDAMINA with their new innovative products and responding to the needs of customers.
2.1.2		# of new water and sanitation services provided with RANO WASH support	Annual				17	19	112%	50	52	104%	This achievement mostly results from PPP+ initiatives of the private sector and the initiative of the unsolicited PPP applications supported by RANO WASH. also the realization of local Masons / KABONE MANDAMINA with their new innovative products and responding to the needs of customers.
OP 2.1.1 A comprehensive WASH market assessment strategy developed													
OP 2.1.2 Regional WASH market development plans drafted													

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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
OP 2.1.3 Type and range of financial products for WASH services and products available and accessible increased													
2.1.3.1		# of WSP/artisans/vendors issued loan products for investment in WASH systems	Quarterly	0	4	#DIV/0!	40	51	128%	181	192	106%	This result is obtained by counting the number of WSPs and local masons as well as local Couturiers who took out loans or credits with VSLA groups for participation in the VSLA competition organized by the project, as well as the number of procurement credits or payment facilities granted by suppliers of meters, pipes, etc. to the WSPs in order to honor the completion of the infrastructure in PPP+ (service extension) and normal PPP with the project.
IR2.2 Improved design, construction and management of WASH infrastructure													
2.2.1	HL.8.1-1	# of people gaining access to basic drinking water services as a result of USG assistance	Quarterly	43494	16574	38%	89122	55736	63%	210,000	154,334	73%	At this point, we have not yet reached the target of 300,000 beneficiaries. Forecast of projected
2.2.2	HL.8.1-2	# of people gaining access to safely managed drinking water services	Quarterly	21827	6331	29%	36270	11508	32%	90,000	56,845	63%	

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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
		as a result of USG assistance											beneficiaries should however guarantee to reach this target of the 90 project sites for access to safe water services, 17 sites have a current service coverage of about 19%. These 17 sites represent a latent potential of 121,600 new water users. By continuing with the same current approach, we expect the WSPs to increase the service coverage rate of these systems in the remaining project period
2.2.3	HL.8.2-2	# of people gaining access to a basic sanitation service as a result of USG assistance	Quarterly	22647	49461	218%	100000	122955	123%	362,712	365,667	101%	
2.2.4		# of people gaining access to a <i>limited</i> sanitation service as a result of USG assistance	Quarterly	7034	56282	800%	30000	86649	289%	264,401	296,050	112%	The ripple effect on the population of the ODF communes continues, and the good influence received from other communes that have achieved



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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
													the status encourages other communes to do the same.
2.2.5	HL.8.5-1	# of people benefiting from the adoption and implementation of measures to improve water resources management as a result of USG assistance	Annual				82613	64103	78%	270,187	231,024	86%	The current number of beneficiaries comes from the counting of the beneficiaries of the infrastructure realized during this period, and we hope that with the more than a dozen systems under construction, which are not yet counted, we will be able to reach this result before the end of the project.
OP 2.2.1 Design and construction of sustainable WASH infrastructure improved													
2.2.1.1		# of infrastructure feasibility studies (APD and APDS reports) completed	Quarterly			#DIV/0!	11	11	100%	196	196	100%	
		# APS								113	113	100%	
		# APD				#DIV/0!	11	11	100%	83	83	100%	
2.2.1.2	HL.8.1-4	# of institutional settings gaining access to basic drinking water services as a result of USG assistance	Quarterly	4	10	250%	96	107	111%	211	222	105%	The fourth quarter is the period marked by the collection of construction results that began in the second and
2.2.1.3	HL.8.2-4	# of basic sanitation facilities provided in	Quarterly	26	39	150%	193	260	135%	354	373	105%	

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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
		institutional settings as a result of USG assistance											third quarter at the institutional level.
<b>IR2.3 Strengthened technical &amp; business skills and competencies</b>													
2.3.1		# of business plans developed for offering consumer WASH products and/or services	Annual				62	87	140%	173	198	114%	Strong progression resulting from the new construction and renewed WSPs engagement in Vatovavy, Fitovinany and Haute Matsiatra regions
2.3.2		% increase in sales for RANO WASH-supported enterprises (average % increase in net sales for enterprises following business training)	Annual				25%	NA		25%	NA	!	This indicator will be reported with the results of the final evaluation
<b>OP 2.3.1 Capacity building for private sector in business systems and technical operations strengthened</b>													
2.3.1.1		# of WSP/commune staff trained in improved WASH service provision	Quarterly	0	29	#DIV/0!	140	338	241%	1,224	1,268	104%	
<b>OP 2.3.2 Development of professional associations</b>													
2.3.2.1		# of national professional associations / local cooperatives developed with RANO WASH support	Annual				6	12	200%	7	13	186%	This period, there has been a wave of result of mobilization and support of the new local cooperatives Masons and Seamstresses in the region of Atsinanana which is the result of a long accompaniment

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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
													since a few quarters to the constitution of their status and other reinforcements that have most marked this result.
<b>SO 3 : Adoption of healthy behaviors and use of WASH services accelerated</b>													
3.1	HL.8.2-5	% of households with soap and water at a hand washing station commonly used by family members	Annual				35%	NA		35%	NA		This indicator will be reported with the results of the final evaluation
3.2	HL.8.2-1	# of communities verified as "open defecation free" (ODF) as a result of USG assistance	Quarterly	131	405	309%	1360	1954	144%	5,429	5,543	102%	This good result is closely linked with the performance of the indicator on ODF Commune.
	New indicator	# of Communes certified as "open defecation free" (ODF) as a result of USG assistance	Annual	0	20	#DIV/0!	34	55	162%	68	77	113%	The ripple effect on the ODF Communes is continuing, and the good influence received from hearing from other Communes achieving the status bring other Communes to do the same
<b>IR3.1 Improved hygiene and sanitation BC solutions through applied research</b>													
3.1.1		# knowledge products documenting learning produced and disseminated	Annual				6	24	400%	20	38	190%	The recent intensive learning activities realized by the project allowed to have this good result, including the

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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
													capitalization workshop
3.1.2		# intended organizations reporting applying knowledge gained from a knowledge product to improve program, service delivery, training/education, or research practice	Annual				2	4	200%	15	17	113%	As with learning activities, the dissemination with other organizations had been also very intensive this year, as part of the transition plan of the project
OP 3.1.1 Behavioral science innovations for WASH BC explored, iterated, evaluated													
OP 3.1.2 Studies of integrated population, health and environment (PHE) programming models stimulating cross-sectoral collaboration													
OP 3.1.3 WASH-Nutrition linkages researched													
<b>IR3.2 Improved implementation of WASH BC at all levels: communities, government and private sector</b>													
3.2.1		% communities verified ODF that remain ODF following verification	Quarterly	75%	95%	127%	75%	98%	131%	75%	95%	126%	The maintenance of ODF status remains good at this point, as the sustainability plan at the local level are still in place
OP 3.2.1 WASH BC program coordination improved in RANO WASH regions													
OP 3.2.2 Innovative CLTS and WASH BC implementation													
3.2.2.1		# of VSLA members who reported investing in WASH services or products (latrine, water connection, etc.)	Quarterly	237	352	149%	2179	2912	134%	22,400	23,133	103%	The VSLA contest has been finalized during this last quarter, bringing this result to a good performance for the LOP indicator
3.2.2.3		% intervention communities triggered through CLTS which become verified ODF	Quarterly	90%	340%	378%	90%	48%	53%	90%	74%	82%	The result on this indicator for FY22 is mostly due to the transition plan implementation. While ATEAH were trained to organize CLTS

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#	Reference Indicator	Indicator Title	Reporting Frequency	Q4 FY22			FY22			Life of project (LoP)			Comments
				Target	Actual	%	Target	Actual	%	Revised target	Achieved to date	%	
													triggering, they are still struggling in the monitoring of the triggered villages. Hence, many triggering done jointly by RANO WASH field staff and ATEAH where left without supervision once the field staff left. However, all communities within ODF communes achieved good results, these communities with limited results are in Communes which are lagging in ODF status process. Their situation has already been handed over to communal and regional MEAH to make sure ATEAH will continue monitoring.
OP 3.2.3 Marketing communications developed for WASH products and services													
IR 3.3 Evidence-based WASH BC and hygiene promotion shared to influence policy and practice													

## ANNEX 8. TECHNICAL NOTE ON ESTIMATION METHOD FOR ACCESS TO WATER

### Estimation of the number of people gaining access to basic drinking and safely managed water services as a result of USG assistance

#### BACKGROUND AND OBJECTIVE

Since the beginning of the project, the performance in terms of access to water measured by the two indicators (number of people gaining access to basic drinking water services as a result of USG assistance and number of people gaining access to safely managed drinking water services as a result of USG assistance) are still very low compared to the target.

After a deep assessment of the MEAL system in April 2021, the team found that these two indicators may be underestimated because most households with private connections share water with multiple other households, and this information is not systematically recorded because it is not possible to visit every single household every quarter to identify the households receiving water from them. RANO WASH project and USAID agreed to take the opportunity of the annual survey to provide an estimate of these two indicators, and the PIRS was updated in consequence, and USAID approved the new definition.

As mentioned above, the objective of this study was to provide the estimated values of the water access indicators (number of people gaining access to basic drinking water services as a result of USG assistance and number of people gaining access to safely managed drinking water services as a result of USG assistance).

#### METHODOLOGY

##### Sampling method

The survey method that is retained is a multi-stage cluster survey.

1. At the first stage, all the 6 regions targeted by the RANO WASH project were selected.
2. At the second stage, the communes were selected using a simple random sampling method.
3. At the third stage, the villages were selected using simple random sampling as the list of villages in each region and communes was available.
4. Finally, at the fourth stage, households were selected using the spin the pen method. As soon as the enumerator identify a village, he needed to identify the center of the village and using a pen he randomly selected to direction to take and the first household to interview.

The sample size of the study was calculated using the below formula.

$$n = \frac{D * (Z_{\alpha} + Z_{\beta})^2 * (P_1 * (1 - P_1) + P_2 * (1 - P_2))}{(P_2 - P_1)^2}$$

N is the minimum sample size required per domain

D the design effect (D=2 if you use a cluster sampling design)

P1 is the estimated value of the key indicator at the baseline

P2 is the estimated value of the key indicator at the end line

Z $\alpha$  score corresponding to a level of statistical significance desired (when  $\alpha=0.05$ , then  $Z_{\alpha}=1.64$ )

Z $\beta$  score corresponding to a level of power desired (when  $\beta=0.80$ , then  $Z_{\beta}=0.84$ )

A total of 1000 households, distributed in the seven project intervention regions Alaotra Mangoro, Amoron'i Mania, Atsinanana, Haute Matsiatra, Vakinankaratra, Vatovavy and Fitovinany were interviewed.

### Estimation method

Data were extrapolated using extrapolation coefficients. For each individual  $I$  in the dataset,  $e_i$  is the extrapolation coefficient. Usually, in statistics, the extrapolation coefficient is the reverse of the inclusion probability in the sample.

If we consider  $P_i$  the probability for individual  $i$  to be selected in the sample,  $e_i$  extrapolation coefficient is given by the following expression:

$$e_i = \frac{1}{P_i}$$

The value of the probability of inclusion  $P_i$  is determined by the sample method. The sample method was a four-stage cluster sampling method.

1. At the first stage, all the regions were selected, meaning that the probability for each region  $l$  to be selected is  $P_l = 1$ .
2. At the second stage, 100 communes were selected out of 250 communes using a simple random sampling, making the probability of inclusion of each commune  $k$  to be selected  $P_k = \frac{c_l}{C_l} = \frac{100}{250}$  where  $c_l$  is the number of communes in the region  $l$  selected in the sample and  $C_l$  the total number of communes in the region  $l$ .
3. At the third stage, if we consider  $v_k$  the number of villages in the commune  $k$  selected in the sample and  $V_k$  the total number of villages of the commune  $k$ , the probability of each village  $j$  in commune  $k$  to be selected in the sample is given by the following expression:  $P_j = \frac{v_k}{V_k}$
4. At the fourth stage, if we note  $P_{ij}$ , the probability of a household  $I$  to be selected in village  $j$ , the probability of the household  $I$  to be selected is given by:  $P_{ij} = \frac{h_j}{H_j}$  where  $h_j$  is the number of households in village  $j$  selected in the sample and  $H_j$  is the total number of households in village  $j$

Per definition,  $P(A \cap B \cap C \cap D) = P(A) \times P(B) \times P(C) \times P(D)$ . This means that the inclusion probability of household  $I$  is given by the multiplication of the probability obtained at all stage of the cluster sampling. This means that:  $P_i = P_l \times P_k \times P_j \times P_{ij}$ .

The extrapolation coefficient will be given by the following expression:

$$e_i = \frac{1}{P_i} = \frac{1}{\frac{c_l}{C_l} \times \frac{v_k}{V_k} \times \frac{h_j}{H_j}} = \frac{C_l \times V_k \times H_j}{c_l \times v_k \times h_j}$$

### FINDINGS

If we consider the individual  $i$  and the variable  $X$ ,  $X_i$  the value of the variable for individual  $i$  and  $X_t$  the unknown value of the variable  $X$  in the overall population,  $X_t$  is given by the following expression.

$$X_t = \sum_{i=1}^n e_i \times X_i = \sum_{i=1}^n X_i \frac{C_l \times V_k \times H_j}{c_l \times v_k \times h_j}$$

Where  $n$  is the sample size and  $e_i$  the extrapolation coefficient defined in the methodology section.

Using the above formula, RANO WASH obtained the estimations for the two key indicators as presented in the table below.

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Indicator	Estimated valued	Monitoring data value	Variance	%
# of people gaining access to basic drinking water services as a result of USG assistance	98,598	92,713	5,885	6%
# of people gaining access to safely managed drinking water services as a result of USG assistance	45,337	32,670	12,667	39%
<b>Total</b>	<b>143 935</b>	<b>125,383</b>	<b>18,552</b>	

The total number of people gaining access to basic drinking water is estimated at 98,598 which is an addition of 5,885 compared to what is reported through the routine data collection system.

Concerning the number of people gaining access to safely managed drinking water services as a result of USG assistance, the total number is 45,337 compared to 32,670 from the routine data collection reporting mechanism, making an addition of 12,667.



## ANNEX 9. RANO WASH KNOWLEDGE MANAGEMENT FRAMEWORK

**Knowledge Management** : *“Getting the right information to the right people at the right time, and helping people create knowledge and share and act upon information in ways that will measurably improve performance” (NASA!)*

### PROJECT LEARNING QUESTIONS/THEMES

The project has identified five key learning themes during a learning preparatory workshop held on 24-25 August 2022 with the project coordination team:

- **WASH System:** What are the lessons learned on strengthening government and government and communities for a strong WASH system?
- **Gender & Social Inclusion** - What are the lessons learned from Rano Wash in interpreting Gender and Social Inclusion in the WASH sector?
- **Private Sector Engagement** - What are the project's achievements in engaging the private sector for equitable and sustainable WASH services?
- **Behavior Change** - What are the project achievements in accelerating the adoption of healthy behaviors and use of WASH services?
- **WASH Financing** - What are the lessons learned for increasing sector funding for equitable and sustainable WASH services?

### PROJECT KNOWLEDGE PRODUCTS

The project will prioritize 4 types of learning products as part of the knowledge management framework and plan:

- Case Study
- Brief

- Training Tools
- Manual & Implementation Guide

These learning products will build upon the project documentation, progress reports and annexes submitted and approved by USAID.

## **DISSEMINATION / TARGET AUDIENCE**

The project has identified several target audience, respectively at the local, regional, national and international levels :

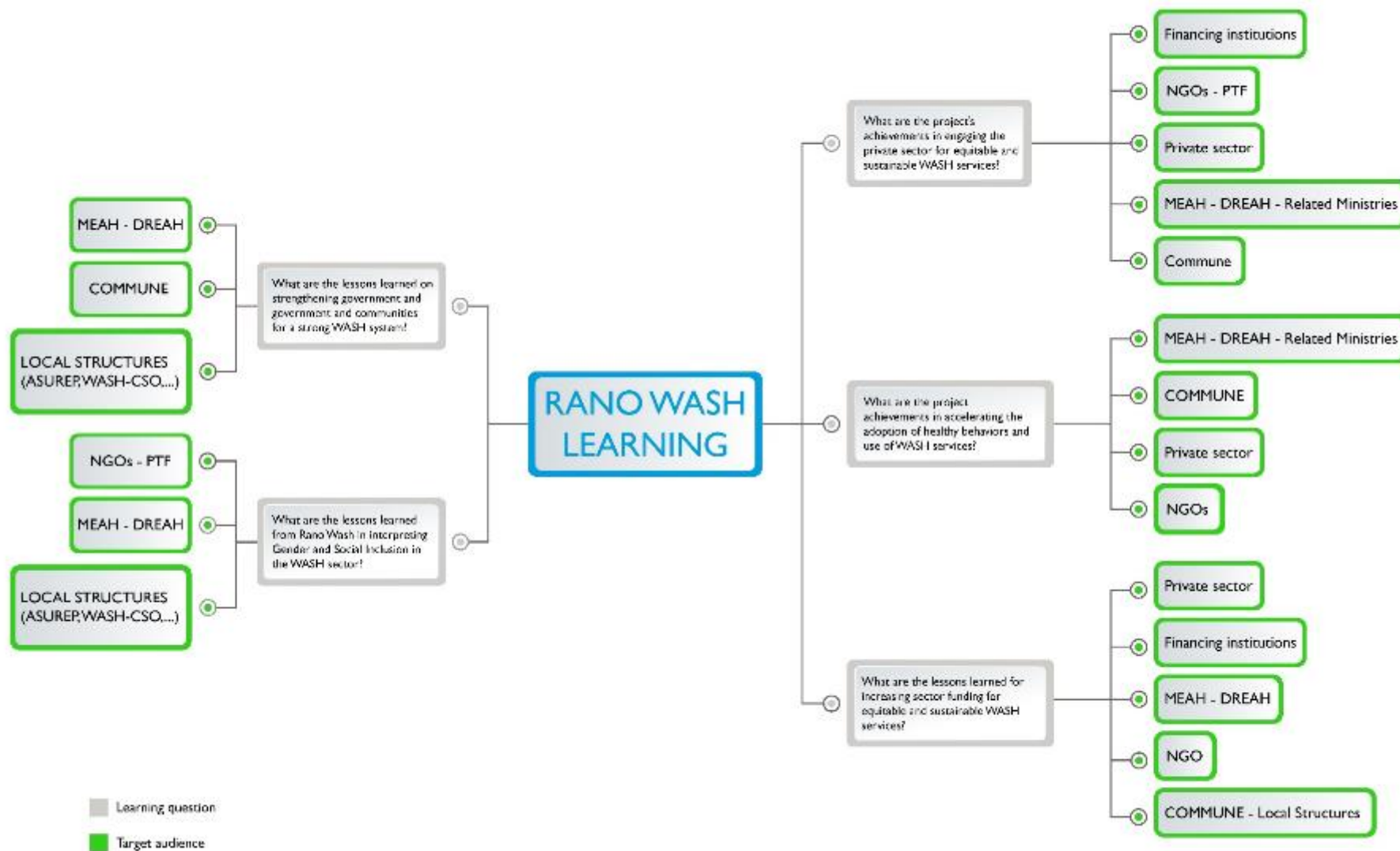
- **Local and communal level :**
  - Relay structures (CSO-EAH, SLC, local promoters, masons, seamstresses, staff at the communal level of companies managing water systems, ...)
  - Communes and their staff
- **Regional and national level:**
  - Madagascar Government: MEAH / DREAH
  - Actors working in the sector (projects, international and national NGOs, etc.)
  - Private sector actors at the regional and national level (investment and guarantee institutions, financial institutions, input suppliers, business incubators, ....)
- **International level:**
  - USAID/Globalwaters.org
  - Attendance to international conferences (UNC, IRC WASH, SBCC)
  - Agenda for Change
  - Programme Solidarité Eau pS-Eau (A multi-stakeholders network working for access to water and sanitation for all)
  - UNICEF, donors
  - International organizations working in the WASH sector including RANO WASH Consortium members (CARE, CRs, WaterAid)
  - Private sector working in the WASH sector, including financial institutions

## **KEY DISSEMINATION PLATFORMS**

Besides the key knowledge products, other project resources (project reports, success, stories, webinars, videos) are available on the project webpages (<http://www.ranowash.org/>)

and will be shared as relevant on the following platforms:

- USAID Globalwaters.org website : [www.globalwaters.org](http://www.globalwaters.org)
- Agenda for Change <https://washagendaforchange.org/>
- pS-Eau <https://www.pseau.org>
- Ran'Eau website <https://www.raneau.org/>
- MEAH website <https://meah.gov.mg/>
- EDBM website / e-toolia <https://etoolia.edbm.mg/>



**ILLUSTRATIVE LEARNING PRODUCTS BY TARGET AUDIENCE**

TARGET AUDIENCE	OBJECTIVES	LEARNING PRODUCTS	KEY PROJECT DOCUMENTS / RESOURCES
Ministry EAH (National-Reg)	MEAH/DREAH implement approach to strengthen WASH system to accelerate development of WASH services	Training tools Evaluation guide	- RANO WASH System approach tools and resources
MEAH (National-Reg)	MEAH engages private sector to improve access to WASH services	Manual and Implementation Guide	<ul style="list-style-type: none"> <li>- Success factors in the transition from community to private management for water supply systems</li> <li>- Guidelines for unsolicited PPP applications</li> <li>- Model Addendum Delegation Contract</li> <li>- Business Planning Tools</li> <li>- RANO WASH PPP Procurement Process</li> <li>- Harmonized Procurement Process for the " Invest - Build - O&amp; M</li> </ul> <p>PPP Tender Dossier</p> <ul style="list-style-type: none"> <li>- Report WASH fair 6 Regions</li> <li>- Communal sheets</li> <li>- Steps of the recruitment by spontaneous application to be followed after the regional fair</li> <li>- steps of the WSP for the Direct PPP+ application</li> <li>- OpEx and CapManEx to be considered for the hospital waste incineration management service</li> </ul>
Ministry (National-Reg)	MEAH/DREAH strengthen collaboration with related ministries to improve access to WASH services	Manual and Implementation Guide	<ul style="list-style-type: none"> <li>- WASH Friendly Institutions</li> <li>- Managing and Sustaining WASH Services in Rural Institutions</li> <li>- WASH in Institution Guide</li> </ul>
	DREAH continues to build the capacity of the Communes/STEAH	Brief Training tools Manual and Implementation Guide	<ul style="list-style-type: none"> <li>- Summary of STEAH mobile training</li> <li>- Communal review guide</li> <li>- Connecteo</li> <li>- STEAH learning</li> </ul>

TARGET AUDIENCE	OBJECTIVES	LEARNING PRODUCTS	KEY PROJECT DOCUMENTS / RESOURCES
			- MOC trainer module
	MEAH/DREAH continue to exercise their regulatory roles	Case study	- Restitution STEFI Haute Matsiatra
	MEAH urges DREAHs to implement regional coordination to increase access to EAH	Brief / Report	- List of SRMO coordination meetings - Sample SRMO meeting report - SRMO Performance
NGO - Project Implementation	NGOs use/adapt project tools/approaches to support local actors to strengthen the WASH system	Training tools	RANO WASH Gender Analysis and strategy Women's Agency and Leadership for gender equality in WASH Services in Madagascar
		Brief	Men Engaged in WASH Men and Boys Role Models in WASH Challenges Faced by Women Leaders and Proposed Solutions Lessons Learned - Men's Engagement in the WASH Sector Youth First Coaching Final Report Inclusive Accountability Mechanism Challenging the Social Norms that Influence WASH Access and Control
	NGOs will be able to support the private sector/communes in implementing the PPP approach in the WASH sector	Training tools	Access to Water Operational Plan water treatment phases in water supply systems water treatment procedures per water supply system
		Brief	Water Quality Testing Laboratories

TARGET AUDIENCE	OBJECTIVES	LEARNING PRODUCTS	KEY PROJECT DOCUMENTS / RESOURCES
		Guide	<p>Water Quality Testing Reports – Water Supply Systems  Public Private Partnership models for water services  “build Invest Operate’</p> <p>RANO WASH PPP Procurement Process  Guidelines for unsolicited PPP  RANO WASH Harmonized Tender Dossier "Invest - Build - O&amp;M".</p>
	NGOs will use the best tools to implement/promote behavior change and service use	Case study	<p>Case Study: Saving Groups Contributions To the WASH Sector in Madagascar  Case Study: Use of drinking water from rural water systems managed by the private sector  Case Study: Barrier Analysis for Handwashing with Soap in Madagascar</p>
		Brief	<p>Empowerment of women and girls for Menstrual Hygiene  Grow Up Sticker Pretest Results  How to Achieve and Sustain ODF Status?  How to Fully Reach Open Defecation Free Communes?</p>
		Manual and implementation guide	<p>CLTS Research Protocol  RANO WASH Behavior Change Strategy  Preliminary Research Protocols (LSHTM)  Behavior Change Strategy  WASH Friendly School Process</p>
Private Sector	The private sector deploys its financial resources in synergy with financial partners' allocations for WASH infrastructure development	Manual and implementation guide	<p>PPP business model</p> <p>Harmonized Tendering and Contracting procedures/Dossiers for water supplies systems</p> <p>Procurement process</p>

TARGET AUDIENCE	OBJECTIVES	LEARNING PRODUCTS	KEY PROJECT DOCUMENTS / RESOURCES
			technical data sheets fair
			contract/ financing agreement Mandialaza
			unsolicited application guide
	WASH service companies effectively plan and implement their activities and development	Manual and implementation guide	management tools (ODK, procedure guides...)
			results of marketing campaigns
			BP tools
			WASH market research reports, regional WASH market development plans
			SE&AM data
		Training tools	training curricula (O&M, marketing, BP,...)
	Capacity building manuals for entrepreneurs (YF...)		
	Financial institutions are investing in WASH with confidence thanks to better visibility on the security of investments	Manual and implementation guide	Water service coverage plans
			Water Service Delegation Contract
			Water Code, PPP law, (summary), PGE (extracts)
APD, APS			



TARGET AUDIENCE	OBJECTIVES	LEARNING PRODUCTS	KEY PROJECT DOCUMENTS / RESOURCES
			semi-annual report of the WSPs
	WASH service providers easily collaborate with communities using pre-developed guides	Manual and implementation guide	communal commitment
			community meeting guide, community engagement...
			environmental monitoring guide, Go Green, ...
Municipality	The Commune is able to provide the M.O.C.	Training tools	Trainers' JI Module; WASH System Strengthening; Annex 8. Examples of WASH System Analysis Tools; STEFI Overview; SE&AM Upgrade
		Manual and implementation guide	
	Communities continue to implement and adapt behavior change strategies	Training tools	Curriculum BC/Grow Up Sticker - VSLA - CLTS
		Brief	Commune ODF - Behavior Change Strategy - CLTS and Sanitation Strategy - VSLA Strategy - Grow Up Sticker Strategy Review - Support for Savings Groups - KEY Findings from Women Leaders Advocacy sessions in WASH - Summary Results of the Data Analysis on Research on Handwashing with Soap - RANO WASH Behavior Change Strategy
		Guide	PL Guide - VSLA - Healthy Behavior and Service Utilization Posters; Gender Tools - WASH Friendly School Process - ToR for VSLA Contest - Grow Up Sticker Implementation Guide MG & EN - Grow-Up Sticker Implementation Guide May2020 - Managing and Sustaining WASH Services at the Rural Institution Level -

TARGET AUDIENCE	OBJECTIVES	LEARNING PRODUCTS	KEY PROJECT DOCUMENTS / RESOURCES
	Communes engage the private sector to provide WASH services	Training tools	Training curriculum (available at SO2 level)
		Brief	Summary Results of research on privately managed safe water Design Brief: The Toilet Everyone Wants Market Based Sanitation: Prototyping and Testing Progress
		Manual and implementation guide	Guide to bidding, PPP procurement process - APS/APD process – Local Masons Catalogue – Minimum requirements for inclusive WASH infrastructure - Annex 13. Chronology of WASH PPP Models
Local structures (ASUREP, OSCEAH...)	Local structures mobilize communities to use accountability mechanisms and challenge power holders	Manual and training guide	Inclusive Accountability Mechanism - Gender Approach and Improved Access and Monitoring of WASH Services - Guidelines for unsolicited PPP applications Water Treatment Phases in a water supply system Public Private Partnership Model for water services
		Case study	Case Study Community Engagement for PPP
	Local structures remind the community of their rights and duties	Training manual and guide	Nde ho Maitso tools MDR tools (community meeting, idea box, CSC, green line, etc.) EMMR

**LEARNING METHODS – TYPE OF KNOWLEDGE PRODUCTS**

Type	Objective	Sub-objective
<b>Technical Brief or Field Note</b>	Identify key lessons and success factors and describe and analyze projects and activities in water and sanitation that provide lessons for sector leaders, administrators, and individuals tackling the water and sanitation challenges. The criteria for selection of stories could show large-scale impact, demonstrable sustainability, good cost recovery, replicable conditions, and leadership.	
<b>Case Study</b>	<p>A case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context. The case study approach captures information on more explanatory 'how', 'what' and 'why' questions, such as 'how is the intervention being implemented and received on the ground?'. It can also offer additional insights into what gaps exist in its delivery or why one implementation strategy might be chosen over another. Case studies deal more with examination and explanation to backup a proposed a solution. They are pertinent when your research or implementation addresses either a descriptive question—“What is happening or has happened?”—or an explanatory question—“How or why did something happen?.” Overall, the case study can be methodologically rigorous (i.e. prospective data collection) or simply a reflection of an experience or event (i.e. retrospective analysis).</p> <p><b>TIP:</b> It's important to explicitly define the "case."</p>	<ol style="list-style-type: none"> <li>1. Typically undertaken to learn about a unique phenomenon. The researcher should define the uniqueness of the phenomenon, which distinguishes it from all others.</li> <li>2. Uses a particular case (some of which may be better than others) to gain a broader appreciation of an issue or phenomenon.</li> <li>3. Studying multiple cases simultaneously or sequentially in an attempt to generate a still broader appreciation of a particular issue.</li> </ol>
<b>Manual and tool kit</b>	Prepares authorized and standardized instructions to user or employees	

Type	Objective	Sub-objective
	A collection of authoritative and adaptable resources for front-line staff that enables them to learn about an issue and identify approaches for addressing them, can help translate theory into practice, and typically target one issue or one audience.	
<b>Training tools</b>	A learning course addresses the need for the knowledge and skills and applied learning.	

**GLOBALWATERS.ORG TAXONOMY TERMS FOR PUBLICATION OF ASSETS**

<https://docs.google.com/spreadsheets/d/1IO5bWuNDXFWDRdDEuZsIMVDYJCSR69BPSb5LmtVP3to/edit#gid=1191989748>

RESOURCE TYPE	KEY TOPICS
Announcement	<a href="#">Agricultural Water Management</a>
Journal Article	<a href="#">Behavior Change</a>
Stories	<a href="#">Climate Change</a>
Brief	<a href="#">Disaster Risk Reduction</a>
Case Studies	<a href="#">Emergency WASH</a>
Dataset	<a href="#">Finance</a>
Evaluation	<a href="#">Gender Equality &amp; Empowerment</a>
Event	<a href="#">Governance</a>
Fact Sheet	<a href="#">Health</a>

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RESOURCE TYPE	KEY TOPICS
Infographic	<a href="#">Hygiene</a>
Literature Review	<a href="#">Maternal and Child Health</a>
Newsletter	<a href="#">Monitoring and Evaluation</a>
Podcast	<a href="#">Nutrition</a>
Presentation	<a href="#">Private Sector</a>
Program Report	<a href="#">Resilience</a>
Strategy and Guidance	<a href="#">Sanitation</a>
Technical Report	<a href="#">Sustainability</a>
Toolkit	<a href="#">Transboundary</a>
Training	<a href="#">Water Quality</a>
Video	<a href="#">Water Resources Management</a>
Webinar	<a href="#">Water Security</a>
Website	<a href="#">Water Supply</a>

## ANNEX 10. LEARNING PLAN Q4.22

Themes	Activities	Deliverables		Q4 FY2022			Q1 FY23			Q2 FY23			Q3 FY23			Milestones	Comments
		Type	Format	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
<b>SOI: Strengthened WASH governance and systems for sustainable and equitable WASH service delivery</b>																	
Simplified guide for municipalities to conduct a municipal review	Elaboration of the guide	Documentation for work tools	Guide to conducting a community review													Draft of the guide	During the last review of the document, it was noted that many elements were still to be completed
	Proofreading and validation of documents		Tools to use for the community review													Finalized deliverables	
Integration of WASH into the Communal Program Budget.	Document review	Learning Study/Documentation	cl learning document with sample and comparative tax revenue strategies implemented													Draft of the document	The previous theme “Enabling environment for tax revenue mobilization” has been changed. The study will be conducted with the Atsinanana team for Q1 FY23
	Drafting of the document		Improved training tools for SRBs/ I commune guide on tax revenue mobilization														
	Workshop for sharing and improving the document		Statistics on tax revenue performance														

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Themes	Activities	Deliverables		Q4 FY2022			Q1 FY23			Q2 FY23			Q3 FY23			Milestones	Comments
		Type	Format	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
	Finalization of the document														Validated learning document		
STEAH and communal project management	Summary results of the STEAH Learning	Learning Study	1 learning document answering learning questions on empowering communes to take ownership of WASH to facilitate strategic reorientations of the project												Synthesis of findings on the determinants of effective STEAH	The previous theme “Communal project management towards the empowerment of the Commune “has been changed. The study will be conducted for Q1 FY23	
	Finalization of the learning document														Validated learning document		
<b>SO2: Increased and improved private sector engagement in WASH service delivery</b>																	
Automatic water kiosks	Documentary Review														Draft of the document	The study will therefore focus on the profitability factors of water kiosks and good practices in their implementation	
	Drafting the report																
	Consultation for improvement														Finalized learning document		
	Finalization of the report																
Support to entrepreneurship in the provision of drinking	Document review	Learning study	- Summary report of the project approaches with results											Summary results of the project approaches with results	The previous theme “Marketing GIC “has been changed. The study will be		
	Data collection from GIC																

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Themes	Activities	Deliverables		Q4 FY2022			Q1 FY23			Q2 FY23			Q3 FY23			Milestones	Comments	
		Type	Format	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun			
water services	Writing of the learning document		- Report on the analysis of the company's decision-making processes based on the SWOT analysis of the different managers' actions													I Final Report	conducted for Q1 FY23	
Management of the PPP contract	Data Collection from regional teams	Capitalization	Case studies: Amparafaravola and Ambila Lemaitso													Data collected	The previous theme "Success factors of PPP and PPP+" has been changed. The study will be conducted for Q1 FY23 in Alaotra Mangoro and Atsinanana	
	Writing of the learning document																	Draft of the document
	Documentary review and finalization																	
<b>SO3: Adoption of healthy behaviors, use of WASH services, and improved health and nutrition outcomes</b>																		
Effective and sustainable WASH	Recruitment of the consultant	Capitalization/Documentation	Capitalization document of the														I operational consultant	



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Themes	Activities	Deliverables		Q4 FY2022			Q1 FY23			Q2 FY23			Q3 FY23			Milestones	Comments	
		Type	Format	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun			
services in rural health facilities and schools	Establishment of the information to be collected and design of collection tools		support provided by RANO WASH, with good practices, lessons learned and recommendations													Presentation of the study methodology		
	Data collection from targets at the national level		Illustrated practical guide with proposals for infrastructure and service management models. The summary of regulatory texts will be presented in an introductory part of this practical guide.													Data available from the consultant	Field trips for data collection are scheduled for early November	
	Data analysis																	
	Restitution sessions of the results to the actors (3 working days for the consultant)																	
	Consultation and finalization of deliverables (report and practical guide) (7 working days for the consultant)																I capitalization document available	
	Workshop for the presentation and feedback of the practical guide																I practical guide available	
	Finalization																	
<b>Gender and Social Inclusion</b>																		
Private Sector and Gender	Documentary review	Capitalization/Documentation	Capitalization document on the experiences of the														I draft	

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Themes	Activities	Deliverables		Q4 FY2022			Q1 FY23			Q2 FY23			Q3 FY23			Milestones	Comments	
		Type	Format	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun			
	Writing the report		RANO WASH project on the engagement of the private sector including women and youth															
	Consultation for improvement																	I learning document available
	Finalization																	

## ANNEX II. TOR RANO WASH CAPITALIZATION SEMINAR

### TERMS OF REFERENCE

#### CAPITALIZATION SEMINAR OF THE RANO WASH PROJECT

September 19 to 22, 2022

Hotel Panorama Andrainarivo Antananarivo

**Knowledge management:** *"Getting the right information to the right people at the right time, and helping people create, share and act on the information in ways that measurably improve performance."*

(NASA).

### I. BACKGROUND

The Rural Access to New Opportunities in Water, Sanitation, and Hygiene (RANO WASH) project is a five-year project to increase equitable and sustainable access to water, sanitation, and hygiene services, maximize the impact on human health and nutrition, and preserve the environment in 250 rural communes in seven high-priority regions: Alaotra Mangoro, Amoron'i Mania, Atsinanana, Haute Matsiatra, Vakinankaratra, Vatovavy, and Fitovinany.

RANO WASH aims to improve access to safe drinking water for vulnerable populations, including girls, women and people with disabilities. 300,000 people will have access to clean water through new or rehabilitated water supply systems. These systems will be managed by local "Manager-Investor-Constructor" companies trained under the project, using the public-private partnership modality. 375,000 additional people will have better sanitation options through various behavior change approaches adopted by the project involving different stakeholders, the communities themselves, sanitation service providers, local, regional and national authorities. 190 public facilities, including health centers and schools, will have access to basic water and sanitation services. The project is developing systematic partnerships with national and regional governments, water and sanitation institutions, communities, private sector actors and civil society organizations.

The goal is to implement a strategic set of mutually supportive activities that contribute to three interrelated strategic objectives:

1. Strengthen water and sanitation governance and monitoring;
2. Increase private sector engagement in WASH service delivery;
3. Accelerate the adoption of healthy behaviors and the use of WASH services.

The project is now in its 5<sup>e</sup> year of implementation and is focusing its efforts on capitalizing on the achievements to ensure the transition to government structures, sector actors and relay structures at the communal level. The four-day event will be held from September 19 to 22, 2022 to :

- 19 - 20 September: involve all project staff at all levels in the preparation of the sharing sessions with all sector stakeholders
- 21 - 22 September: share the project's achievements with all the players in the sector

## 2. OBJECTIVES OF THE SEMINAR

### September 19 - 20 :

- Allow the project staff to benefit from the learnings within the project
- Ensure proper preparation of the sharing sessions for all the actors in the sector

### September 21 - 22 :

- Share the project's achievements with all the players in the sector
- Receive feedback from stakeholders to improve learning products

## 3. EXPECTED RESULTS

### September 19 - 20 :

- Sharing sessions between staff members carried out
- Presentations and materials produced for the sharing sessions
- Simulations of the sharing sessions carried out according to the time limit

### September 21 - 22 :

- Sharing sessions carried out with the actors of the sector
- Presentations and materials available to all industry players

## 4. SUMMARY OF THE RANO WASH LEARNING FRAMEWORK

### PROJECT LEARNING QUESTIONS/THEMES

The project identified five key learning themes.

#### Learning Issues:

1. **SYSTEMS APPROACH:** What are the lessons learned on institutional strengthening of government and communities for a strong WASH system?
2. **GENDER AND SOCIAL INCLUSION:** What are the lessons learned from RANO WASH in interpreting gender and social inclusion in the WASH sector?
3. **PRIVATE SECTOR ENGAGEMENT:** What has the project achieved in terms of private sector engagement for equitable and sustainable WASH services?
4. **BEHAVIOR CHANGE:** What are RW's assets for accelerating the adoption of healthy behaviors and the use of WASH services?
5. **WASH SECTOR FINANCING:** What are the lessons learned for increasing sector financing for equitable and sustainable WASH services?

### LEARNING PRODUCTS

The project will prioritize 4 types of learning products within the knowledge management plan and framework:

- Case Study
- Briefings
- Training tools
- Manuals and implementation guides

## DISSEMINATION

The project has identified several target audiences at the local, regional, national and international levels respectively:

- **Local and communal level:**
  - Relay structures (CSO-EAH, SLC, local promoters, masons, seamstresses, staff at the communal level of the companies managing the water systems, ...)
  - Municipalities and their staff
- **Regional and national level:**
  - Government of Madagascar : MEAH / DREAH
  - Actors working in the sector (projects, international and national NGOs, etc.)
  - Private sector actors at the regional and national level (investment and guarantee institutions, financial institutions, input providers, business incubators, ....)
- **International level:**
  - USAID/Globalwaters.org
  - Participation in international conferences (UNC, IRC WASH, SBCC)
  - Program for Change
  - Solidarité Eau pSEau Program (A multi-actor network working for access to water and sanitation for all)
  - UNICEF, donors
  - International organizations working in the WASH sector, including members of the RANO WASH Consortium (CARE, CRs, WaterAid)
  - Private sector working in the WASH sector, including financial institutions

## BROADCASTING PLATFORMS

In addition to the main knowledge products, other project resources (project reports, success stories, webinars, videos) are available on the project web pages (<http://www.ranowash.org/>) and will be shared, as appropriate, on the following platforms:

- USAID Globalwaters.org website: [www.globalwaters.org](http://www.globalwaters.org)
- Program for Change <https://washagendaforchange.org>
- Pseau <https://www.pseau.org>
- Ran'Eau website <https://www.raneau.org/>
- MEAH website <https://meah.gov.mg/>
- EDBM website / e-toolia <https://etoolia.edbm.mg/>
- Websites of the RANO WASH consortium members

## 5. LEARNING SEMINAR TOPICS SEPTEMBER 19-22

Starting with learning issues, the sharing event will address the following 12 themes:

- 1. Strong government for inclusive and sustainable WASH services**  
*How can MEAH and DREAH leverage the systems approach for an enabling environment for WASH sector development?*
- 2. Local structures committed to inclusive and sustainable WASH services for their communities**  
*How can local community initiatives be developed to influence the quality and development of WASH services?*
- 3. Successful community ownership to ensure inclusive and sustainable WASH services**  
*How can communal ownership accelerate access to WASH services for Madagascar?*
- 4. Good practices for access to inclusive WASH services and products**  
*How can we ensure access and control of WASH services and products for all?*
- 5. WASH investment opportunities for the private sector**  
*How can the private sector contribute to WASH sector development?*
- 6. Resource mobilization by Communes to achieve inclusive and sustainable WASH services**  
*How has the Project Owner increased public funding for inclusive WASH services?*
- 7. Human Centered Design to develop the sanitation business**  
*What approach should be taken to build a business that meets the aspirations of rural customers?*
- 8. WASH business opportunity for young entrepreneurs and small private operators**  
*How can we contribute to the emergence of markets for WASH products through small private operators?*
- 9. Ensuring the growth of companies Managers - Builders - Investors working in the drinking water sector**  
*How to build the profitability of a drinking water utility and accompany the managing companies in their growth?*
- 10. Mobilize the private sector in the implementation and management of sustainable and climate resilient WASH infrastructure**  
*How has the private sector contributed to the development of sustainable and climate-resilient WASH infrastructure?*
- 11. Strategies and actions to accelerate behavior change and the use of WASH services**  
*How have the GUS and VSLA approaches accelerated the adoption of hygiene behaviors and use of services?*
- 12. The systems approach, a lever for scaling up ODF status**  
*How did a systems approach facilitate access to basic sanitation services and scale up ODF status?*

## 6. HOW THE EVENT UNFOLDED

Date	Time	Content	Moderator	Presenter
J1 19 Sep	9:00 am - 10:00 am	Introduction Common understanding of the learning framework Preparation between facilitators and moderators of the sessions		
	10:00 am - 11:15 am	Simulation of each session (30mn presentation and 15mn feedback)		
	11:15 am - 12:30 pm			
	2:00 pm - 5:00 pm	Simulation of each session (30mn presentation and 15mn feedback)		
J2 20 Sep	9:00 am - 1:00 pm	Simulation of each session (continued) (30mn presentation and 15mn feedback)		
	2:00 pm - 5:00 pm	Simulation of each session (continued) (30mn presentation and 15mn feedback)		
J3 21 Sept	8h30 09h00 - 09h30 09h30	Welcome of the guests Speech	RAN'EAU Team	
		<b>CONFERENCES</b>		
	10:15 am - 11:45 am	<b>Room 1: Strong Government for Inclusive and Sustainable WASH Services</b> <i>How can MEAH and DREAH leverage the systems approach for an enabling environment for WASH sector development?</i>	Fanilo	
	10:15 am - 11:45 am	<b>Room 2: Strategies and Actions to Accelerate Behavior Change and Use of WASH Services - n I I</b> <i>How have the GUS and VSLA approaches accelerated the adoption of hygiene behaviors and use of services?</i>	Ifaliana	Dr Fanja, Ndriana
	1:15 - 2:45 pm	<b>Room 1: WASH Investment Opportunities for the Private Sector</b> <i>How can the private sector contribute to WASH sector development?</i>	Mamy	
1:15 - 2:45 pm	<b>Room 2: Local structures committed to inclusive and sustainable WASH services for their communities -</b> <i>How can local community initiatives be developed to influence the quality and development of WASH services?</i>	Hanta		
3:30 pm - 5:00 pm	<b>Room 1: Ensuring the growth of companies Managers - Builders - Investors working in the drinking water sector</b> <i>How can we build the profitability of a drinking water utility and support management companies in their growth?</i>	Mamy		

Date	Time	Content	Moderator	Presenter
	3:30 pm - 5:00 pm	<b>Room 2: Human Centered Design to Develop the Sanitation Business -</b> <i>What approach to take to build a business that meets the aspirations of rural customers?</i>	Hanta	IDE
J4 22 Sept		<b>CONFERENCES</b>	RAN'EAU Team	
	09h00 - 10h30	<b>Room 1: Successful communal ownership to ensure inclusive and sustainable WASH services</b> <i>How can communal ownership accelerate access to WASH services for Madagascar?</i>	Andry	
	09h00 - 10h30	<b>Room 2: The systems approach, a lever for scaling up ODF status</b> <i>How did a systems approach facilitate access to basic sanitation services and scale up ODF status?</i>	Lahatra/	Njaratiana
	11:00 am - 12:30 pm	<b>Room 1: Mobilizing the private sector in the implementation and management of sustainable and climate change resilient WASH infrastructure</b> <i>How has the private sector contributed to the development of sustainable and climate-resilient WASH infrastructure?</i>	Andry	
	11h0 - 12h30	<b>Room 2: Good Practices for Accessing Inclusive WASH Services and Products</b> <i>How can we ensure access and control of WASH services and products for all?</i>	Lahatra/	Ifaliana
	2:00 - 3:30 pm	<b>Room 1: WASH Business Opportunity for Young Entrepreneurs and Small Private Operators</b> <i>How can we contribute to the emergence of markets for WASH products through small private operators?</i>	Ranto	
2:00 - 3:30 pm	<b>Room 2: Resource Mobilization by Communities to Achieve Inclusive and Sustainable WASH Services</b> <i>How has the Project Owner increased public funding for inclusive WASH services?</i>	Tojo/	Rodolphe, Amédé, Christian	
		<b>Closing of the event</b>		



**PARTICIPANTS of September 19 and 20, 2022**

<b>RANO WASH Consortium:</b>	<b>Number</b>
CARE	2
WAM	2
CRS	2
SANDANDRANO	2
BUSHPROOF	2
<b>PCT:</b>	
COP	1
DCOP	1
ADVISORS	3
MEAL	5
COMMUNICATION	5
SPECIALISTS	8
TRAINEES	4
ADMIN & LOG	4
<b>Regional teams:</b>	
Regional Coordinators	6
SO1. SO2. SO3	18
MEALs	6
Regional Coordinators Subgrantees	6
DREAH	6
<b>Other:</b>	
RAN'EAU	2
MEAH	10
<b>TOTAL</b>	<b>95</b>

**PARTICIPANTS of September 21 and 22, 2022**

<b><u>Consortium:</u></b>	<b><u>Number</u></b>
CARE	2
WAM	2
CRS	2
SANDANDRANO	2
BUSHPROOF	2
<b><u>PCT:</u></b>	
COP	1
DCOP	1
ADVISORS	3
MEAL	5
COMMUNICATION	5
SPECIALISTS	8
TRAINEES	4
ADMIN & LOG	4
<b><u>Regional teams :</u></b>	
Regional Coordinators	6
SO1. SO2. SO3	18
MEALs	6
Regional Coordinators Subgrantees	6
DREAH	6
<b><u>Other:</u></b>	
RAN'EAU	2
Ministries, Sector Actors & Partners	70
<b>TOTAL</b>	<b>150</b>

**LOGISTICS:**

**Support:**

Lunch will be included during the 2 days of the event (September 19 and 20, 2022)  
Per diem and lodging for the missionaries will be covered by PCT, according to CARE's policy, during their mission (from the time they leave their respective regions until their return).

## ANNEX 12. KEY EVENTS Q4.FY22

DATE	EVENT
October 6, 2021	Appointment of the new Secretary- General within the Ministry of WASH
October 10, 2021	Separation of the Vatovavy Fitovinany into two regions: Vatovavy and Fitovinany
October 11 to 13, 2021	PCT review workshop
October 15, 2021	Celebration of the Global Handwashing with soap Day with the MEAH at Parvis Analakely
October 18, 2021	Beginning of STEAH training via smartphone by Connecteo
October 25, 2021	Official launch of the national campaign "hand hygiene for all"
October 28, 2021	Market-Based Sanitation thematic group online meeting with HYDROCONSEIL on WASH market assessment on Microsoft Teams
October 30, 2021	National celebration of Global Handwashing Day in the rural commune of Mandoto, Vakinankaratra Region
November 03 to 06, 2021	Vakinankaratra Water Fair – B2B
November 08, 2021	CWG (Communications Working Group) meeting with USAID
November 8 to 9, 2021	General Assembly of Madagascar's Decentralized Officials in Antsirabe
November 12, 2021	Finalization and validation meeting of the close-out tools with the consortium
November 15 and 16, 2021	RANO WASH internal workshop on the support package for institutions at Cenacle Amparibe
November 17, 2021	Regional Sector Review in the Vatovavy Fitovinany regions
November 19, 2021	National celebration of World Toilet Day in the District of Morondava, Menabe Region
November 22, 2021	Marketing training session for the WSP. How to improve product sales, i income. Increasing water coverage
November 22, 2021	"Women's agency and leadership for gender equality in WASH services in Madagascar", webinar session with the CARE USA Water Team, during the African Water Week
November 24 to 28, 2021	Economic and Trade Fair of the 23 Regions and "Conference on business opportunities in the water, sanitation and hygiene sector."
November 30 and December 1, 2021	Sharing workshop on STEAH in Antsirabe

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DATE	EVENT
December 2 and 3, 2021	Regional Sector Review in the Atsinanana region
December 6 and 7, 2021	Training for the WSPs on the use of water test kits
December 6 and 7, 2021	National workshop to celebrate the 16 days of activism, to support “men engaged in WASH”, Manakara in Vatovavy Fitovinany
December 7 and 8, 2021	National Sector Review in Antananarivo
December 07 to 08, 2021	Water, Sanitation, and Hygiene Sector Review 2021
December 9, 2021	Donor Roundtable in Antananarivo
December 9 and 10, 2021	Finalization workshop of the “Infection prevention and control (IPC)/ WASH” tools, under the lead of the Public Health Ministry
December 10, 2021	Linking the 6/19 WSPs with groups of investors in capital and guarantees of Madagascar
December 13, 2021	RANO WASH Market Based Sanitation: Project Team Alignment – with IDE - online meeting on Zoom
December 15, 2021	Appointment of a new DREAH for the Vakinankaratra Region
December 15, 2021	Three regions (Analamanga, Vakinankaratra, and Haute Matsiatra) are going under Health Surveillance due to the rise in COVID cases
December 15 and 16, 2021	Inter-Regional Fair of Water, Sanitation, and Hygiene in Ambositra
December 16 and 17, 2021	Regional Forum on the Water, Sanitation, and Hygiene Market for Atsinanana Region
December 20, 2021	RANO WASH Sanitation Marketing & Design Team online Meeting with IDE on Zoom
December 21 to 22, 2022	Water Forum in Ambatondrazaka, Alaotra Mangoro Region
December 29, 2021	Presentation workshop of the results of the capitalization of Local Consultation Structures (SLC), Local Governance Index (IGL), and local finance by the Ministry of Interior and Decentralization in Antananarivo
January 31, 2022	The provisional reception of the new drinking water supply system in the commune of Ivato Centre, Ambositra district, Amoron'i Mania region, took place on January 31, 2022. The system will be able to serve 3,700 people. It is composed of two catchment dams: in Sahavondronina, with a surface area of 78m <sup>2</sup> , and Ankazontana, with a surface area of 75m <sup>2</sup> , a treatment plant of 49m <sup>2</sup> , 2 head tanks and a buffer tank of 25m <sup>3</sup> each. The population of the Ivato center can hope to have access to drinking water from now

DATE	EVENT
	on. Nearly 178 people have already expressed their wish to have access to a social connection or a private connection until today. A monobloc in the chief town of the commune and a sanitary block at the level of CSB II have also been built to improve the life of the inhabitants.
February 1, 2022	Multipurpose reforestation on the Amindrasandambo Andrainjato site - Haute Matsiatra Region A reforestation session was carried out on February 1 at the Amindrasandambo site, Andrainjato commune, Haute Matsiatra region. Its success is due to the collaboration between public and private entities.
February 2, 2022	Introduction meeting with SMMEC – discussion on opportunities of a partnership between VSLAs and SMMEC – and next steps
February 8, 2022	Extraordinary meeting with WASH-Communication Working Group (GT COM-EAH) - Support for cyclone and flood victims in relief camps
February 21, 2022	NextA and WeLight visit to Anosibe Ifody, Moramanga district, Alaotra Mangoro region, at the initiative of RANO WASH . The field visit was an opportunity to learn more about business opportunities in the water, sanitation and hygiene sector. It was also an opportunity to better identify the profiles of managers who have already invested in the sector. WeLight representatives were looking for a partnership opportunity with the GICs (Managers Investors Builders).
February 22-24, 2022	Online SO3 workshop – final stretch
March 2, 2022	Online workshop on MBS model with iDE: updates and next steps
March 3, 2022	Meeting with Fondation Mérieux to explore partnership on WASH in schools
March 3, 2022	Virtual session held during the celebration of the International Women's Day on gender mainstreaming in RANO WASH project interventions “ <i>Asa fa tsy kabary ny fampidirana ny miralenta eo amin'ny sehatry ny Rano Fanadiovana sy Fidiovana</i> ”.
March 6, 2022	Reforestation in Antsary with the First Lady of Madagascar Mialy Rajoelina
March 8, 2022	Participation in the celebration of International Women's Day, with the testimony of two women leaders supported by RANO WASH during the event in Antsirabe, Vakinankaratra.
March 8, 2022	For International Women's Day, the USAID Madagascar Facebook page and Twitter published one of the success stories collected by the Communication team. The publication tells the story of RASOMANANA Sina, the first woman mason in Brickaville was very well received. Two publications were made by USAID Madagascar, one in French and Malagasy, and the second in English. The French and Malagasy publication generated over 8.5k likes, +350 comments, and 44 shares. Similarly, the English publication generated over 3.2k likes.
March 21 to 23, 2022	The national celebration of World Water Day was held in Manakara from March 21 to 23. The RANO WASH project, funded by USAID, played an important role in the national celebration of World Water Day. (March 21, 2022: Tam-tam animation; March 22, 2022: Official Ceremony - Conference-Debate - Infrastructure Visit; March 23, 2022: Reforestation activities)

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DATE	EVENT
March 22, 2022	Reforestation for the protection of watersheds with the Governor of the Fitovinany region, Manakara MP, RANO WASH, UNICEF and ACCESS
March 23, 2022	Site visit of the minister in Vohitrindry
March 29 to April 1, 2022	USAID in Alaotra Mangoro: visit system in Morarano Chrome, Amparafaravola, meeting with VSLA in Anjiro
May 17-18, 2022	Participation in the Sanitation industrial consultation workshop organized by MEAH and UNICEF
May 19, 2022	Inaugurations of water systems in the communes of Ambatomarina and Ivato Centre, Amoron'i Mania region
May 20, 2022	Inaugurations of water systems in the communes of Androy and Andrainjato Est, Haute Matsiatra region
May 23-25, 2022	Communication tools workshop for healthcare facilities with the Ministry of Public Health
May 25-28, 2022	Celebration of the World Menstrual Hygiene Day in Fenerive Est, Analanjirofo region
June 29 - July 1, 2022	Prototype testing for MBS with iDE in Lokomby, Vatovavy region
June 2022	Preparatory meetings of the sector coordination workshop scheduled for July 14th and 15th
June 2022	Live launch of upgraded SE&AM platform
June 2022	Group work on AfricaSan Ngor and WASSMO data
KEY EVENT FY22.Q4	
July 8, 2022	Sharing session with MEAH team on the MBS testing in Lokomby
July 14-15, 2022	WASH Sector Coordination Workshop
July 11- 15, 2022	Pre-validation workshop of Wash-friendly health center curriculum – Antsirabe with the MOPH
August 12, 2022	Inaugurations of water systems in the commune of Andrainjato, Haute Matsiatra and in the commune of Andonabe, Vatovavy region
August 15, 2022 – September 3, 2022	SE&AM and DHIS2 Training to DREAH and STEAH in the 7 intervention regions of the project
August 19- 20, 2022	Prizes delivery for the two winning groups of the VSLA contest in Haute Matsiatra (FIVOARANTSOA Andrainjato Ambalavao and TANTELY Andrainjato Est)
September 8- 13, 2022	Working sessions with “Santé et Environnement” service (MPOH) to draft WASH posters for Health centers

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DATE	EVENT
September 9, 2022	Online learning workshop on Grow-Up Sticker with RANO WASH regional staff and subgrantee
September 19- 22, 2022	RANO WASH capitalization seminar
September 26 – 27, 2022	Field visit for the evaluation of hygiene practices at school with Fondation Merieux and Happy Tap

## ANNEX 13. LIST OF COMMUNES IN PROGRAM AREAS, BY DISTRICT AND REGION

Region	District	Communes	Fokontany
<b>ALAOTRA MANGORO (51 communes)</b>	AMBATONDRAZAKA	Ambandrika	5
		Ambatondrazaka Suburbaine	8
		Ambatosoratra	6
		Ambohiboromanga	6
		Ambohidava	6
		Ambohitsilaozana	10
		Amparihintsokatra	7
		Ampitatsimo	7
		Andilاناتoby	14
		Antsangasanga	4
		Bejofo	7
		Feramanga nord	10
		Ilafy	9
		Imerimandroso	13
		Manakambahiny Andrefana	14
		Soalazaina	5
		Tanambao besakay	4
	AMPARAFARAVOLA	Ambatomainty	6
		Amboavory	16
		Ambodirano	6
		Ambohijanahary	20
		Ambohimandroso	5
		Ambohitrarivo	7
		Amparafaravola	18
		Ampasikely	6
		Andranobe	4
		Andrebakely Sud	6
Morarano Chrome	24		
Ranomainty	6		



Region	District	Communes	Fokontany
		Sahamamy	5
		Tanambe	11
		Vohimena	11
		Vohitsara	6
	MORAMANGA	Amboasary	10
		Ambohibary	12
		Ampasimpotsy Gara	5
		Analasoa	3
		Andaingo	17
		Andasibe	6
		Anosibe Ifody	5
		Antanandava	10
		Antaniditra	3
		Beforona	13
		Belavabary	5
		Bembary	6
		Fierenana	10
		Lakato	10
		Mandialaza	9
		Morarano Gara	7
Sabotsy Anjiro	9		
Vodiriana	6		
AMORON'I MANIA (30 communes)	AMBOSITRA	Alakamisy Ambohijato	9
		Ambalamanakana	7
		Ambatofitorahana	7
		Ambohimombo I	13
		Ambohiperivoana	5
		Ambositra II	23
		Andina	15
		Ankazoambo	5
		Antoetra	17
		Ilaka Centre	13

Region	District	Communes	Fokontany	
		Ivato Centre	18	
		Kianjandrakefina	16	
		Marosoa	15	
		Sahatsio Ambohimanjaka	6	
		Tsarasaotra	28	
	FANDRIANA	Alakamisy Ambohimahazo	14	
		Ankarinoro	8	
		Fiadanana	28	
		Isandrandahy Ambony	8	
		Mahazoarivo	13	
		Miarinavaratra	38	
		Sahamadio Fisakana	27	
		Sandrandahy	38	
	MANANDRIANA	Ambatomarina	11	
		Ambohimahazo	10	
		Ambohimilanja	11	
		Anjoman'Ankona	11	
		Ilanja	4	
		Soatanana	5	
		Vivany Andakatanikely	6	
	ATSINANANA (52 communes)	BRICKAVILLE	Ambalarondra	14
			Ambinaninony	16
			Ampasimbe	8
Andekaleka			4	
Andovoranto			12	
Anivorano Est			7	
Anjahamana			8	
Antsampanana			9	
Fanasana			4	
Fetraomby			21	
Lohariandava			10	
Mahatsara			7	

Region	District	Communes	Fokontany
		Ranomafana Est	9
		Vohipeno Razanaka	6
		Vohitranivona	8
	MAHANORO	Manjakandriana	11
		Tsaravinany	13
	TOAMASINA II	Ambodilazana	11
		Ambodiriana	9
		Amboditandrroho	11
		Ampasimadinika	6
		Ampasimbe Onibe	11
		Ampisokina	6
		Amporofo	5
		Andondabe	16
		Andranobolaha	8
		Antenina	1
		Antetezambaro	13
		Fanandrana	10
		Foulpointe	12
		Mangabe	7
	Sahambala	12	
	Satrandroy	4	
	VATOMANDRY	Ambalavolo	10
		Ambodinonoka	5
		Amboditavolo	10
		Ambodivoananto	6
		Ampasimadinika	8
		Ampasimazava	4
Antanambao Mahatsara		14	
Iamborano		17	
Ifasina I		14	
Ifasina II		6	
Ifasina III		5	

Region	District	Communes	Fokontany	
<b>HAUTE MATSIATRA</b>		Ilaka Est	13	
		Maintinandry	3	
		Niarovana Caroline	10	
		Niherenana	6	
		Sahamatevina	13	
		Tanambao Vahatrankaka	5	
		Tsarasambo	7	
		Tsivangiana	11	
	<b>AMBALAVAO</b>	Ambohimandroso	8	
		Andrainjato	5	
		Besoa	5	
		Kirano	6	
		Manamisoa	5	
		Namoly	5	
		Sendrisoa	11	
	<b>LALANGINA</b>	Ambalamahasoa	7	
		Andrainjato Centre	6	
		Andrainjato Est	5	
		Androy	10	
		Fandrandava	4	
		Vinaninoro Ouest	5	
	<b>VOHIBATO</b>	Andranomiditra	13	
		Andranovorivato	16	
		Ankaromalaza Mifanasoa	5	
		Ihazoara	10	
		Maneva	6	
		Soaindrana	5	
		Vinanitelo	6	
	<b>VAKINANKARATRA (33 communes)</b>	<b>ANTSIRABE II</b>	Ambano	12
			Ambatomena	12
			Ambohidranandriana	10
			Ambohimiarivo	7

Region	District	Communes	Fokontany	
		Ambohitsimanova	10	
		Andranomanelatra	14	
		Antanimandry	8	
		Antsoatany	5	
		Mandrosohasina	10	
		Sahanivotry Manandona	7	
		Soanindrariny	13	
	ANTANIFOTSY	Ambatolahy	14	
		Ambatotsipihina	12	
		Ambodiriana	23	
		Ambohimandroso	27	
		Ambohitompoina	8	
		Andranofito	59	
		Antanifotsy	19	
		Antsahalava	24	
		Antsampandrano	10	
		Belanitra	12	
		Soamanandrarinny	10	
		BETAFO	Alakamisy Anativato	8
	Ambohimanambola		12	
	Ambohimasina		11	
	Andranomafana		6	
	Anosiarivo Manapa		7	
	Antsoso		5	
	Mahaiza		11	
	Mandritsara		13	
	Manohisoa		7	
	Soavina		7	
	Tritriva		8	
	<b>VATOVAVY (54 communes)</b>	IKONGO	Ambatofotsy	11
			Ambinanitromby	6
			Ambolomadinika	12

Region	District	Communes	Fokontany
		Andefampony	5
		Ankarimbelo	9
		Kalafotsy	10
		Manampatrana	10
		Maromiandra	9
		Tanakamba	8
		Tolongoina	15
		Tsifenokataka	6
	MANAKARA	Ambahive	8
		Ambalavero	10
		Ambandrika	1
		Amboanjo	12
		Ambohitrova	3
		Amborondra	5
		Ambotaka	5
		Ampasimanjeva	7
		Analavory	4
		Anorombato	7
		Bekatra	10
		Betampona	3
		Fenomby	9
		Lokomby	7
		Mahamaibe	6
		Marofarihy	5
		Mavorano	10
		Mitanty	7
		Nihaonana	2
		Sahanambohitra	4
		Saharefo	5
		Vinanitelo	7
	Vohilava	7	
	Vohimanitra	5	

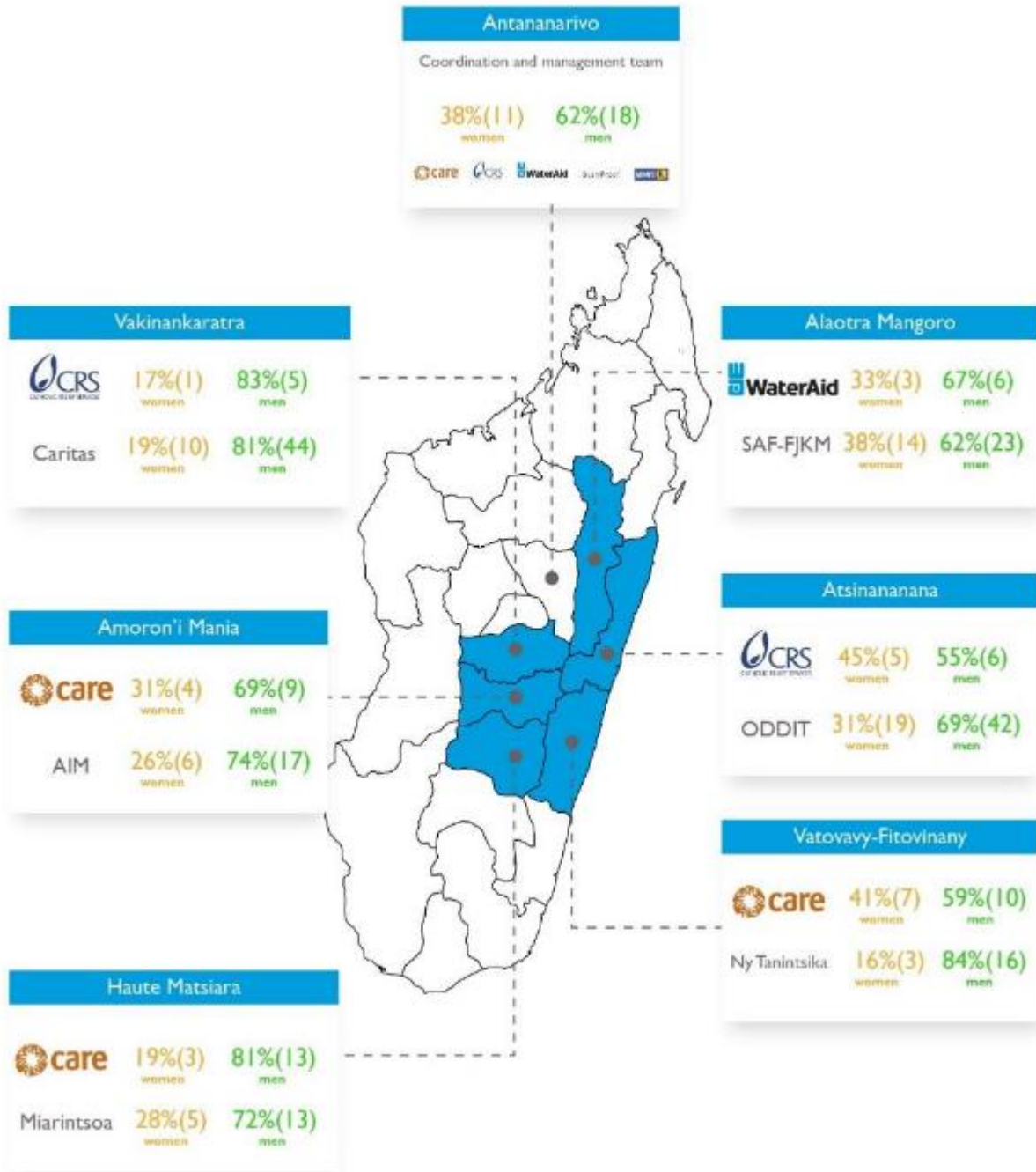
Region	District	Communes	Fokontany
		Vohimasina Nord	5
		Vohimasina Sud	7
		Vohimasy	10
	VOHIPENO	Andemaka	8
		Ankarimbary	9
		Anoloka	7
		Antananabo	5
		Ifatsy	7
		Ilakatra	11
		Mahabo	6
		Mahasoabe	6
		Mahazoarivo	11
		Nato	3
		Sahalava	5
		Savana	4
		Vohilany	4
		Vohindava	7
		Vohitrindry	8
		Zafindrafady	9
FITOVINANY (11 communes)	MANANJARY	Andonabe	11
		Manakana Nord	7
		Namorona	11
		Sandrohy	7
	IFANADIANA	Ambiabe	6
		Androrangavola	16
		Antaretra	10
		Kelilalina	12
		Marotoko	10
		Ranomafana	8
		Tsaratanana	23

## ANNEX 14. RANO WASH TEAM

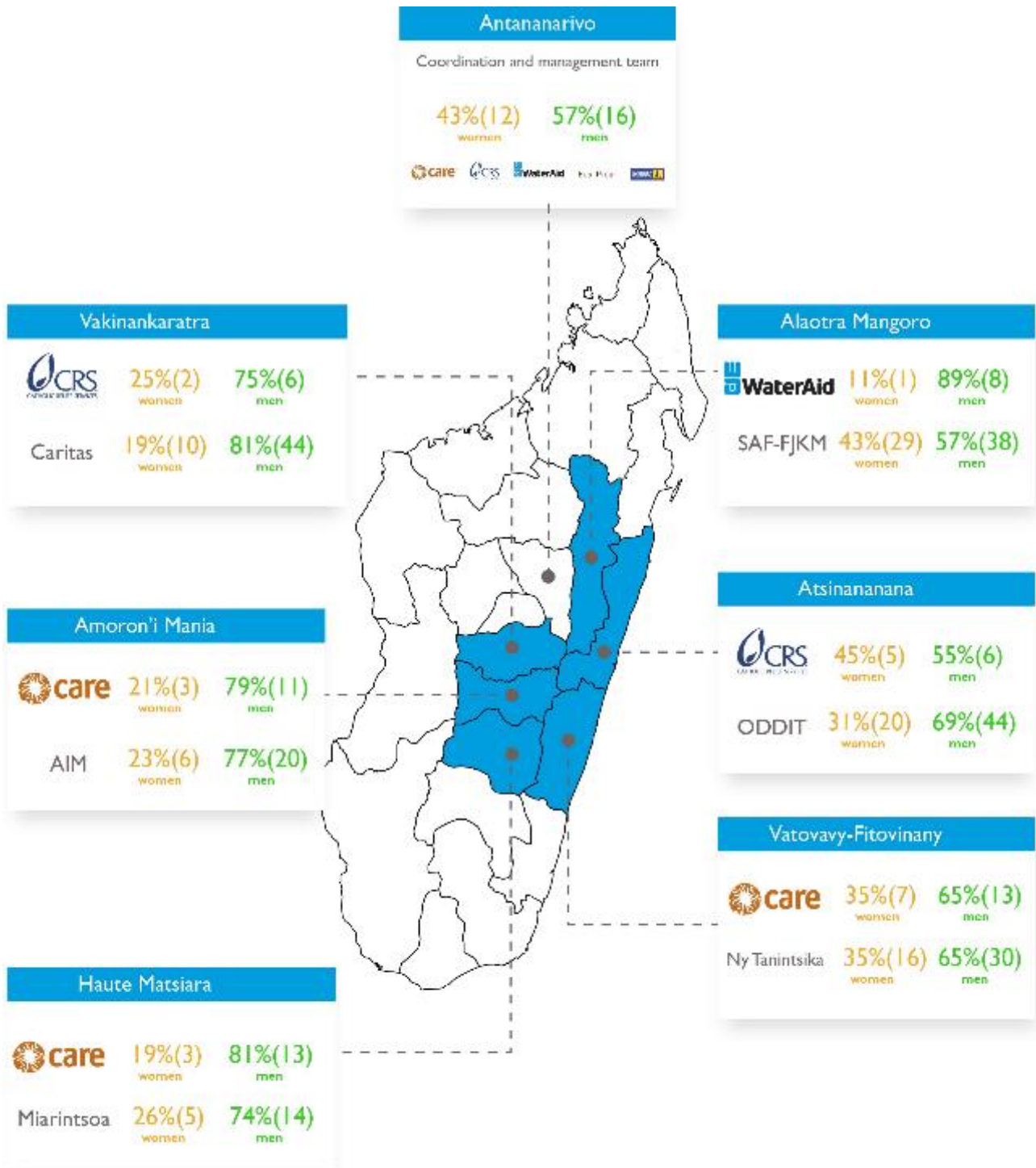
Consortium Member	Role within the consortium
<b>CARE International</b>	<ul style="list-style-type: none"> <li>• Overall technical and administrative project management</li> <li>• Lead donor and government coordination and communication</li> <li>• Technical Lead on Strategic Objective 3: Behavior Change</li> <li>• Lead project implementation in 3 regions: Amoron'i Mania, Haute Matsiatra, and Vatovavy Fitovinany (Ny Tanintsika)</li> <li>• Provide CoP, DCoP, DAF, Senior Behavior Change Advisor, and Gender Advisor (PCT)</li> </ul>
<b>Catholic Relief Services</b>	<ul style="list-style-type: none"> <li>• Technical Lead on Strategic Objective 2 Private Sector Engagement</li> <li>• Lead on Monitoring, Evaluation, Accountability, and Learning</li> <li>• Lead project implementation in 2 regions: Atsinanana (ODDIT sub-grantee) and Vakinankaratra (Caritas)</li> <li>• Provide Senior Private Sector Engagement Advisor and MEAL Director (PCT)</li> </ul>
<b>WaterAid</b>	<ul style="list-style-type: none"> <li>• Technical Lead on Strategic Objective 1; Governance</li> <li>• Lead project implementation in 1 region: Alaotra Mangoro (SAF FJKM)</li> <li>• Provide Senior Governance Advisor (PCT)</li> </ul>
<b>BushProof</b>	<ul style="list-style-type: none"> <li>• Conduct Technical Scoping Study (APS) as required</li> <li>• Conduct Detailed Project Design (APD) as required and ensure the project management of the constructions</li> <li>• Provide capacity building to Water Service Providers (drilling, water quality)</li> <li>• Provide technical support for drilling and environmental protection</li> <li>• Identification/inventory of the needs of stakeholders involved in water analysis in order to decentralize accredited laboratories</li> </ul>
<b>Sandandrano</b>	<ul style="list-style-type: none"> <li>• Conduct Technical Scoping Study (APS) as required</li> <li>• Conduct Detailed Project Design (APD) as required and ensure the project management of the constructions</li> <li>• Provide capacity building to Water Service Providers (PPP, governance, business models)</li> <li>• Provide advisory support to the PCT on PPP models</li> </ul>

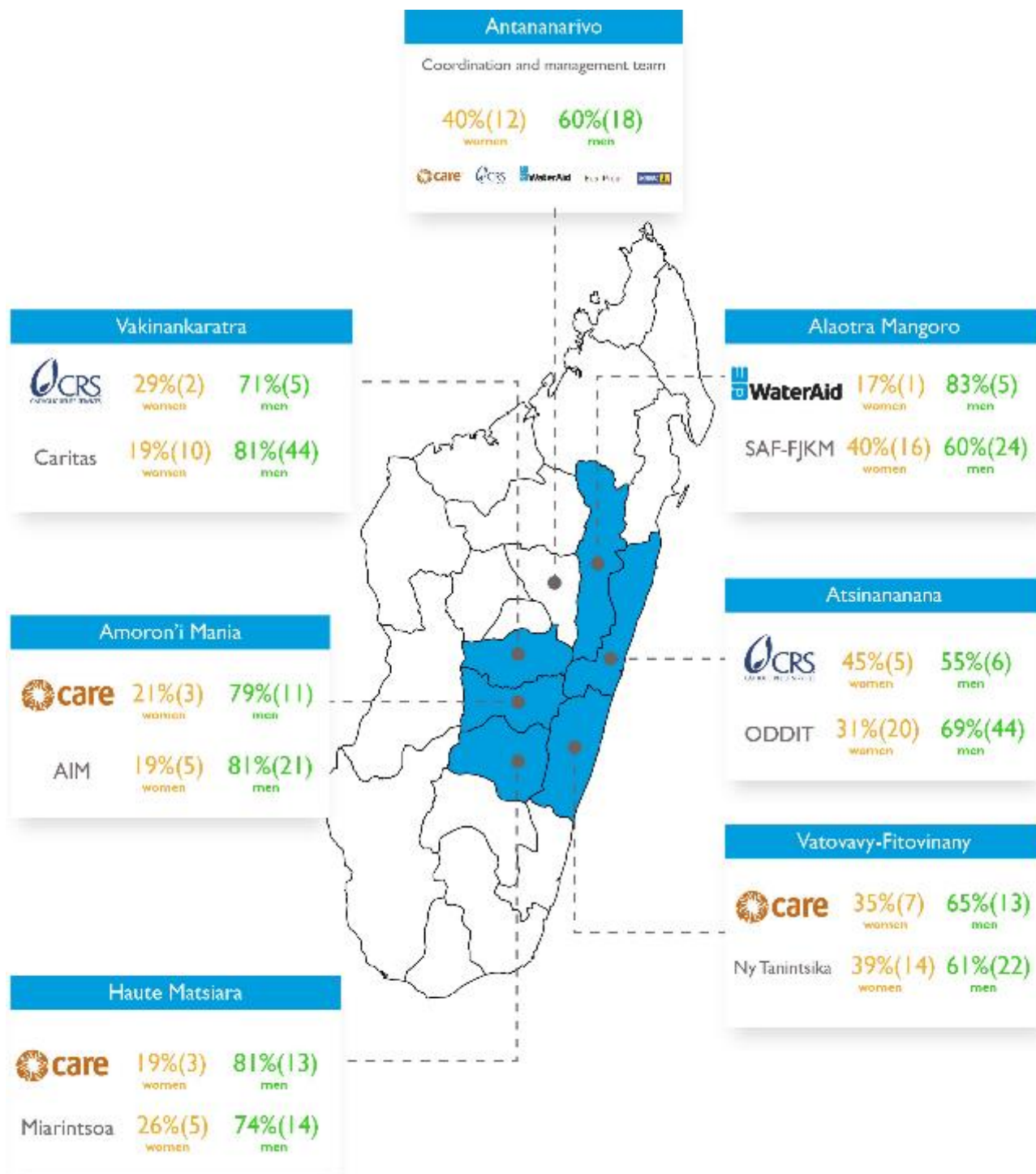


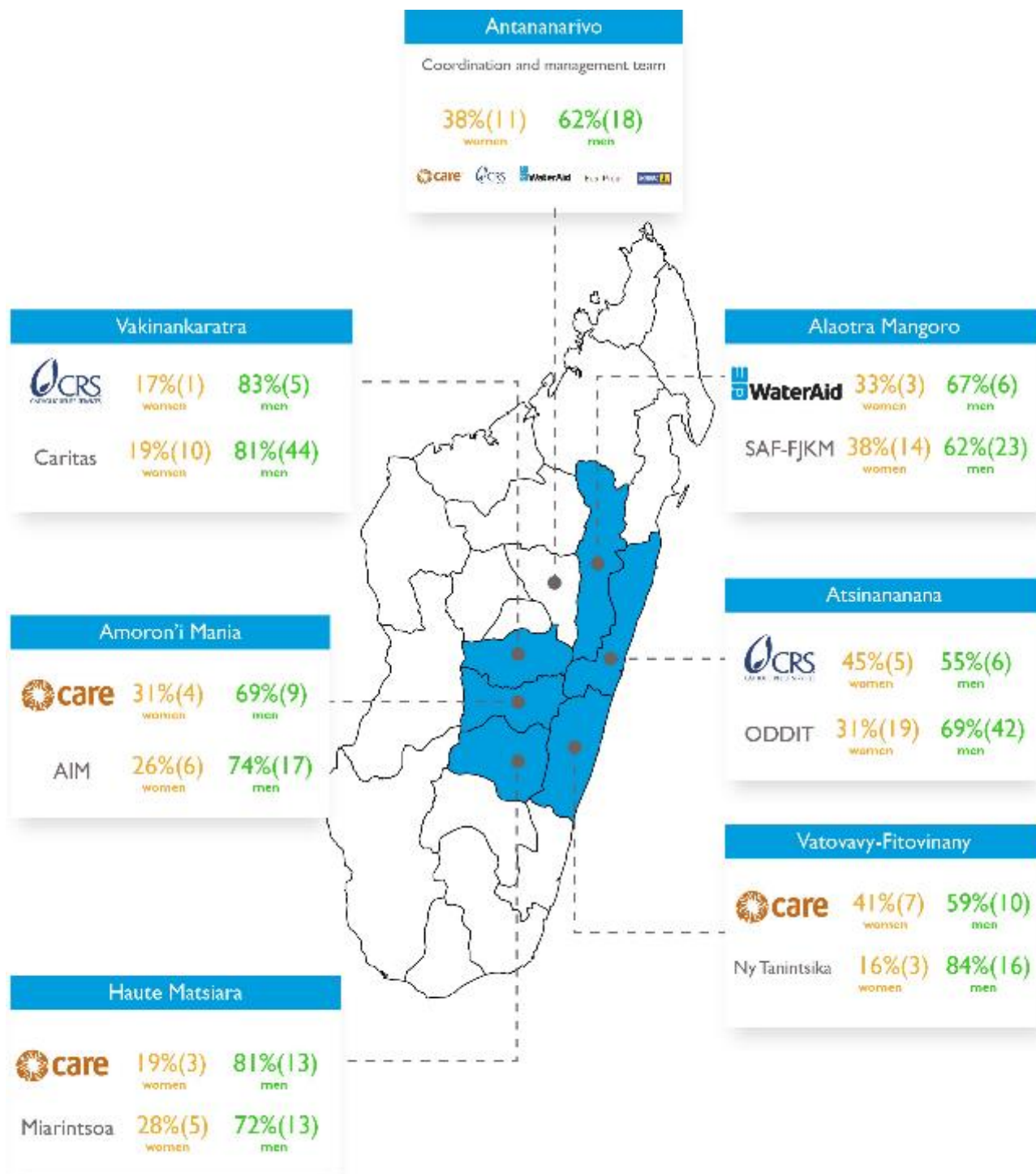
**RANO WASH Team Q3.22 update**



## GENDER MAPPING Q1





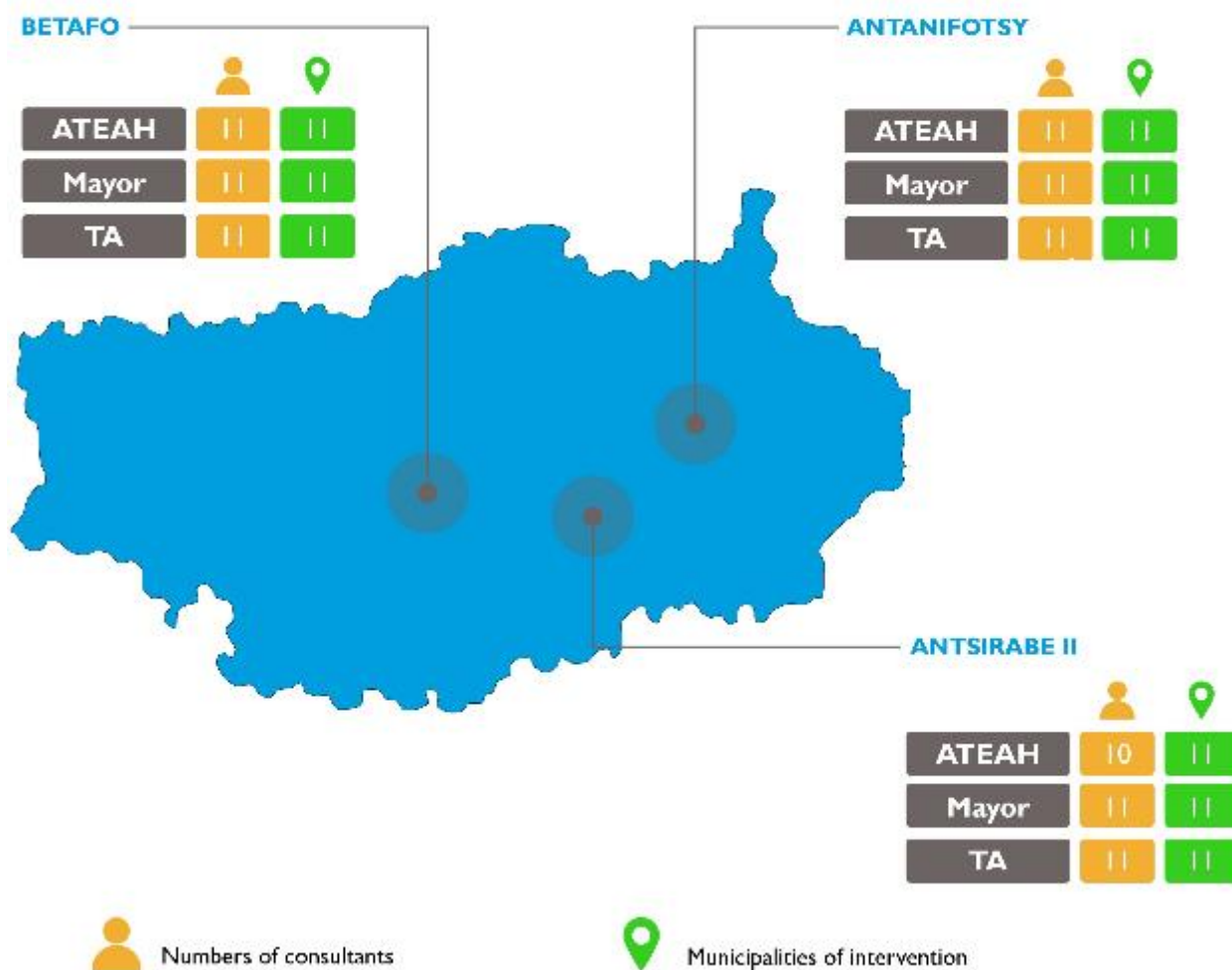


Q4

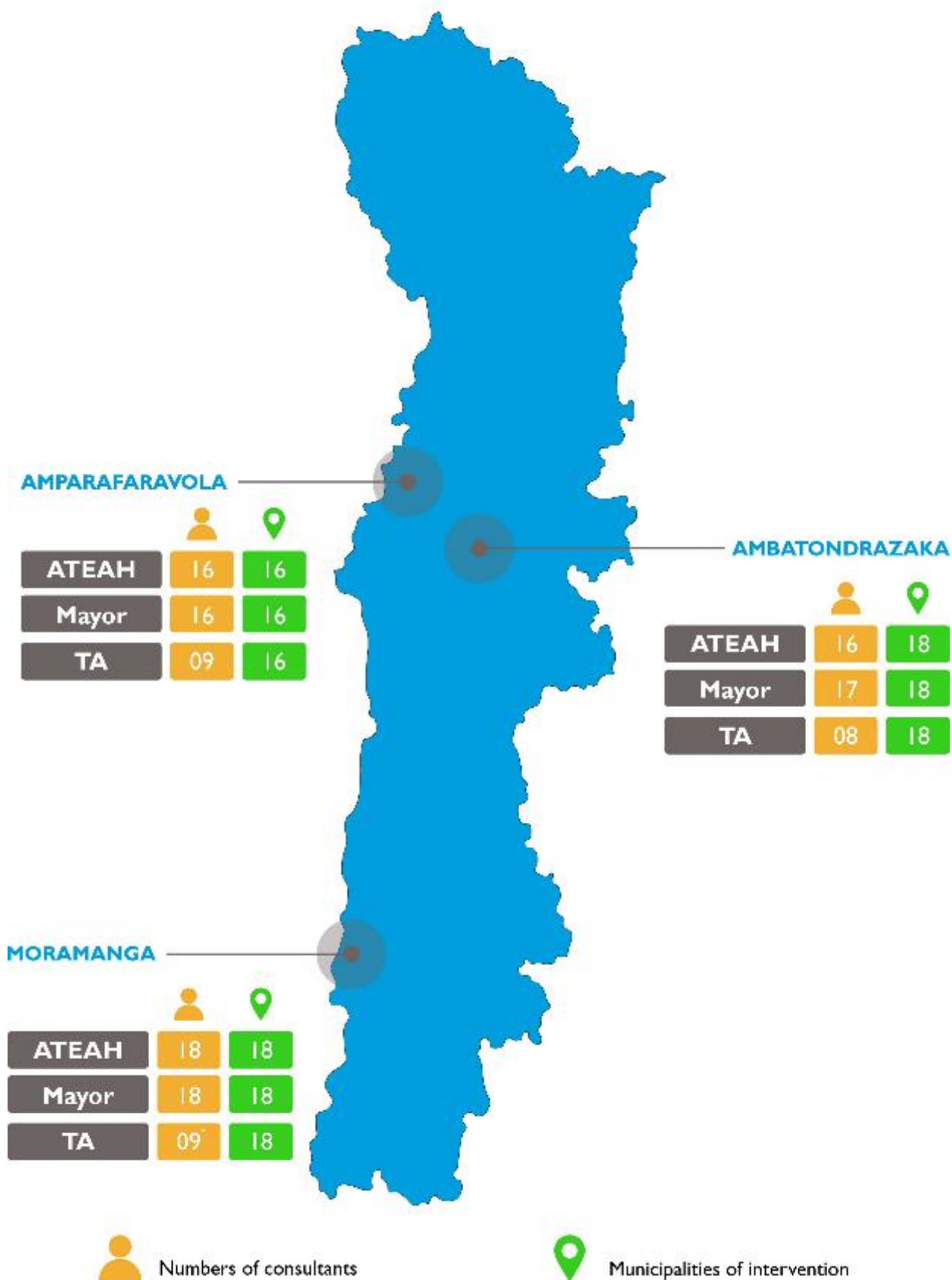


## CENSUS OF MAYORS, «STEAH» AND «TA» AT THE REGIONAL LEVEL

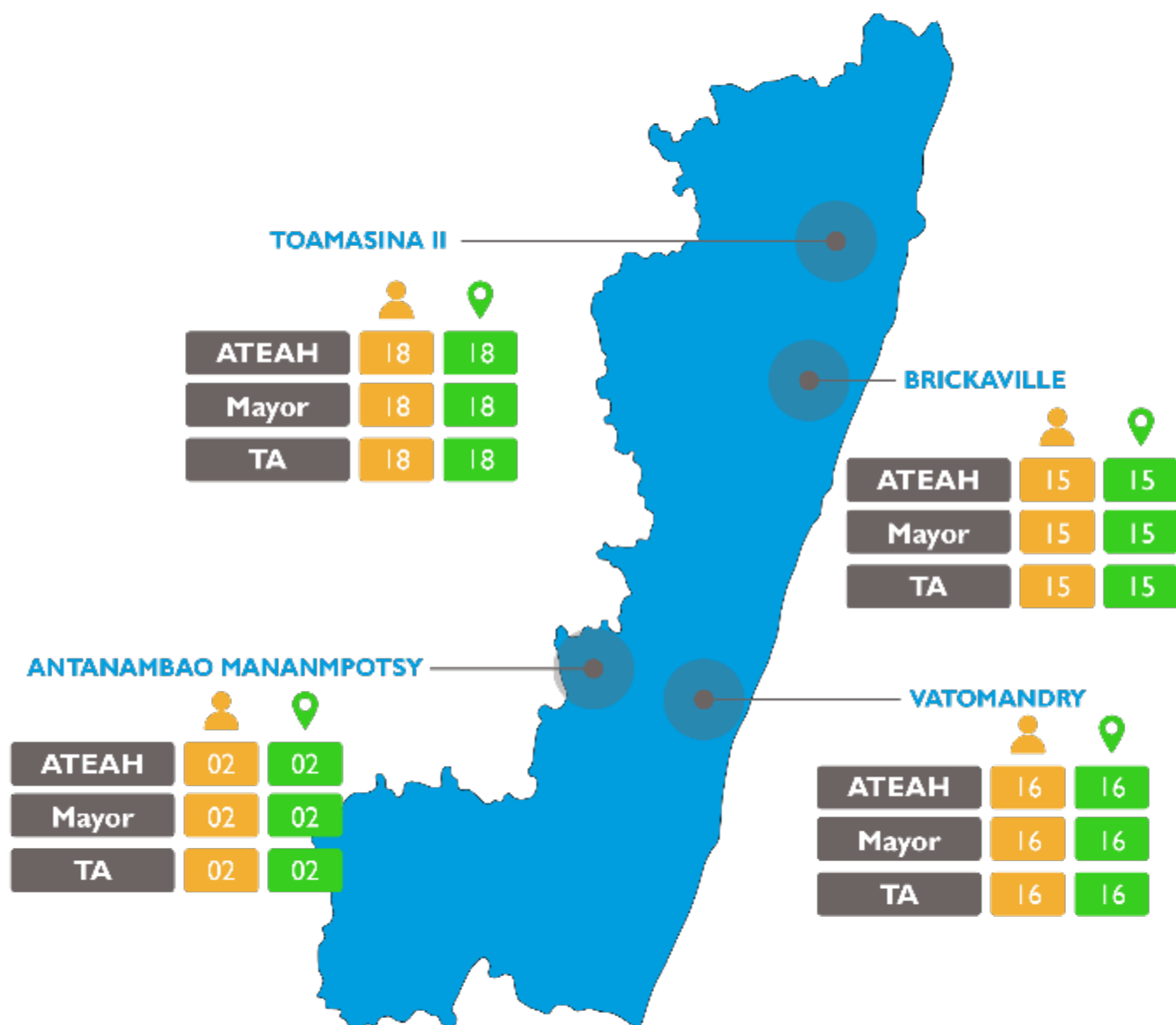
### VAKINANKARATRA




# ALAOTRA MANGORO



# ATSINANANA



 Numbers of consultants

 Municipalities of intervention



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Region	Office	Men	% Men	Women	% Women	Total)
Project Coordination Team (PCT)	Consortium staff	15	56%	12	44%	27
SANDANDRANO	Staff	6	75%	2	25%	8
BUSHPROOF	Staff	9	69%	4	31%	13
ALAOTRA MANGORO	WaterAid regional team	8	89%	1	11%	9
ALAOTRA MANGORO	SAF FJKM	38	57%	29	43%	67
AMORON I MANIA	CARE regional team	11	73%	4	27%	15
AMORON I MANIA	AIM	20	77%	6	23%	26
ATSINANANA	CRS regional team	5	50%	5	50%	10
ATSINANANA	ODDIT	52	71%	21	29%	73
HAUTE MATSIATRA	CARE regional team	13	81%	3	19%	16
HAUTE MATSIATRA	Miarintsoa	14	74%	5	26%	19
VAKINANKARATRA	CRS regional team	6	75%	2	25%	8
VAKINANKARATRA	Caritas	44	81%	10	19%	54
VATOVAVY FITOVINANY	CARE regional team	13	72%	5	28%	18
VATOVAVY FITOVINANY	Ny Tanintsika	31	66%	16	34%	47
<b>Total</b>		<b>254</b>	<b>70%</b>	<b>109</b>	<b>30%</b>	<b>363</b>

## ANNEX 15. RANO WASH TRAINING Q4.FY22

The table below provides an overview of all training activities conducted in FY2022, including Q4.FY22

N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
Training activities Q1.FY22										
1	Regional	SO1	STEFI Training and Launch	<ul style="list-style-type: none"> <li>Monitor the performance of each water manager in the region</li> <li>Discuss how to best implement STEFI</li> </ul> <p>How to best ensure the sustainability of water infrastructure in the Haute Matsiatra region.</p>	MAYORS, ATEAH, System managers from municipalities with water systems in the Haute Matsiatra region	58	18	76	December 1 and 2, 2021	Fianarantsoa, Haute Matsiatra Region
2	Commune Level	SO1	Life Cycle Costing Training	Improve the capacity of core commune executives in filling out and using the LCC tools	Executive team, Mayor and Deputy Mayor, system manager, WASH CSO representative,ASUREP, municipal council president, STEAH	7	1	8	November 2021	Ambatofotsy, Vatovavy Fitovinany Region
3	Communal	SO1	CSO Training	Informing members about their roles and responsibilities	CSO members, Mayor	22	3	25	December 2021	Namorona, Vatovavy

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
										Fitovinany Region
4	Communal	SOI	CSO Training	Informing members about their roles and responsibilities	CSO members, Mayor	13	12	25	November 2021	Andonabe, Vatovavy Fitovinany Region
5	Communal	SOI	Internal reviving of the Local Consultation Structure	Discuss about how to manage the Internal regulations of the SLC	Chief of Fokontany, STEAH, SLC, Traditional leaders, community agents, Education authorities	22	5	27	November 2021	Ambatofotsy, Vatovavy Fitovinany Region
6	Communal	SOI	Life Cycle Costing (LCC) Training	Improve the capacity of core commune executives in filling out and using the LCC tools	Executive team, Mayor and Deputy Mayor, system manager, WASH CSO representative, ASUREP, municipal council president, STEAH	6	4	10	November 2021	Antaretra, Vatovavy Fitovinany Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
7	Regional	SOI	Withdrawal Preparation Workshop per District	Develop a withdrawal plan per District to ensure Commune habilitation and foresee the project's withdrawal	145 participants (3 districts - 1 DREAH - 1 regional representative - 1 District representative)	129	16	145	October 26-29, 2021	Ambatondrazaka Amparafaravola Moramanga, Alaotra Mangoro Region
8	Regional	SOI	STEAH Training on Governance Activities	<ul style="list-style-type: none"> <li>Ensure governance skills transfer to STEAH and Communes</li> <li>Coach them to be ready by the project's withdrawal</li> </ul>	45 STEAH	40	5	45	October 17-19, 2021	Ambatondrazaka Amparafaravola Moramanga, Alaotra Mangoro Region
9	Regional	SOI	WASH Forum	<ul style="list-style-type: none"> <li>Highlight WASH sector business opportunities in the Communes</li> <li>Liaise private investors with Communes</li> </ul> <p>Promote private sector engagement in WASH sector development</p>	115 participants (Mayors/Deputy - ATEAH - Authorities from district/Prefecture/Decentralized services – Companies - financial institution - Project team)	95	20	115	December 21-22, 2021	Ambatondrazaka, Alaotra Mangoro Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
10	District Level	SOI	Developing commune level budget and administrative account and commune level procurement	<ul style="list-style-type: none"> <li>Train communes on the principles and methodology for developing commune budgets</li> <li>Train commune executives in budget and financial management</li> <li>Develop a draft Primary Budget 2022 and Administrative Account 2021</li> </ul> Provide Procurement training to the responsible	12 Communes from the District of Manandriana (7 RANO WASH Communes),  45 Participants in total: Mayor, Commune Treasurer(s), Procurement Committee Members, District Head/Deputy, SOI RW,  12 Trainers from SRB and CRM Amoron'i Mania	33	12	45	October 20-22, 2021	Manandriana District, Amoron'i Mania Region
11	Regional	SOI	Regional WASH Policy, Roles and responsibilities of actors in WASH infrastructure management, Water Code and PPP	Strengthen local governance for WASH	50 participants in total:  30 SRMO / DREAH AMM members  6 RANO WASH communes /12 Commune officials	38	12	50	November 5, 2021	Ambositra, Amoron'i Mania Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					(Mayor and STEAH) 8 CARE RW Staff and implementing partner AIM					
12	Regional	SOI	PPP and Communication Strategy, WASH infrastructure management, Water Code, Private management of water systems	Promote private sector engagement in the WASH sector	26 participants in total 6 RW rural communes from in Amoron'i Mania (Mayors, Deputy Mayors, STEAH) 2 RW rural communes from Vatovavy and Fitovinany (Mayors and STEAH) 2 PCT, 2 Amoron'i Mania, 2 regional SOI Staff	18	6	26	December 15, 2021	Ambositra, Amoron'i Mania Region
13	Communal	SOI	WASH infrastructure management,	Promote private sector engagement in the WASH sector	40 Participants in total: Mayor/Deputy,	37	3	40	October 7, 2021	Rural Commune of Anjoma

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			Water Code, Private Management of Water Systems, Accountability Mechanisms		STEAH, WASH CSO Members, ASUREP Members, SLC Members, Chief of Fokontany, Representatives of beneficiary communities  Trainers: Area Supervisors and Local Technicians					Ankona, Amoron'i Mania Region
14	Communal	SOI	Infrastructure and construction monitoring, Accountability Mechanisms	<ul style="list-style-type: none"> <li>Exchange and information between stakeholders</li> </ul> Assess the construction of water and sanitation infrastructure	12 Participants: Mayor/Deputy, Commune Council members, system manager representative, WASH CSO, ASUREP, SLC, Beneficiaries	8	4	12	December 11, 2021	Rural Commune of Ambatomarina, Amoron'i Mania Region
15	Communal	SOI	Refresher training on CLTS and SE&AM Data Collection	How to provide ODF village certification towards reaching ODF Communes	32 Participants: Mayor, STEAH, Local masons, WASH CSO, SLC, Chief of	29	3	32	December 3, 2021	Rural Commune of Marosoa, Amoron'i Mania Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					Fokontany, Communities					
16	District Level	SOI	Commune fact sheet development	Develop commune fact sheets to be used during the Regional WASH Forum	Mayors, President of the Commune council and STEAH of Sahanivotry, Mandrosohasina, Antanimandry, Ambohidranandriana, Ambohimiarivo, RANO WASH CRS and CARITAS team	19	3	22	October 15, 2021	Antsirabe, Vakinankaratra Region
17	District Level	SOI	Commune fact sheet development	Develop commune fact sheets to be used during the Regional WASH Forum	Mayors, President of the Commune council and STEAH of Andranomafana, Antsoso, Mahaiza, Alakamisy, Ambohimasina, Tritriva,	29	5	34	October 18, 2021	Betafo, Vakinankaratra Region



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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					Mandritsara, Manapa, Soavina, RANO WASH CRS and CARITAS team					
18	District Level	SOI	Commune fact sheet development	Develop commune fact sheets to be used during the Regional WASH Forum	Mayors, President of the Commune council and STEAH of Soamanandrarinny, Antanifotsy, Andranofito, Antsampandrano, Ambohitompoina, Ambodiriana, Amabatolahy, Antsahalava, RANO WASH CRS and CARITAS team	28	7	35	October 19, 2021	Antanifotsy, Vakinankaratra Region
19	Regional	SOI	STEAH Training on mWater	ICT4D Training of 6 STEAH	STEAH of the communes of Soanindrarinny, Antsoantany, Ambohimanambola,	7	3	10	November 22 and 23, 2021	DREAH Office in Antsirabe, Vakinankaratra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					Ambohimandroso, Ambatotsipihina					
20	Regional	SOI	Training for women leaders in the region	Training workshop and strengthening of local governance	Members of the Vakinankaratra women leaders group: DREAH, District Chiefs, Mayors, Presidents of WASH CSO, STEAH, RANO WASH	0	19	19	November 29 and 30, 2021	Antsirabe, Vakinankaratra Region
21	Communal	SOI	Commune level review	Conduct Commune WASH review, governance diagnostics for the communes and annual planning	Commune authorities	346	128	474	December 2021	33 communes, Vakinankaratra Region
22	Communal	SOI	Periodic review of commune level WASH CSOs	Conduct 6-month review, quick wins assessment, action planning and develop an advocacy plan	Members of commune-level WASH CSOs	290	177	467	December 2021	33 communes, Vakinankaratra Region
23	Regional	SOI	SE&AM Training for Mayors and STEAH	<ul style="list-style-type: none"> <li>SE&amp;AM training of Communes</li> </ul>	Mayors and STEAH	50	8	58	October 21	Vatomandry, Atsinanana Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				<ul style="list-style-type: none"> <li>Share commune data to DREAH and validate them</li> </ul> Present and share the SE&AM data collection sheets to Communes					and 22, 2021	
24	Regional	SO1	Monitoring Workshop of WASH Budget Development and Tax Collection	<ul style="list-style-type: none"> <li>Assess the communes' performance following the fiscal training in May 2021</li> </ul> Engage communes to increase their WASH budget for 2022 and to mobilize taxes	Mayors and Accountant/Treasurers	90	27	117	November 22-29, 2021	Vatomandry, Brickaville, and Foulpointe, Atsinanana Region
25	Communal	SO2	Environmental monitoring training according to ESF	Training session for the WSP to sell their products how better. How to improve company's income. Then, how to increase water coverage	Local WSPs, Field Agent at Municipality (STEAH)	2	0	2	December 2021	Soanindrariny
26	Communal	SO2	Water quality training	Training for the WSP how to use water test kit	WSP	2	0	2	December 2021	Morarano Chrome

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N	Level	Project component/ objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
27	Regional	SO3	Financial literacy	<p>Provide basic knowledge of financial products and risks to enable them to make appropriate choices, better manage their budget, and make better use of financial services.</p> <p>Familiarize teams with the use of the trainer's manual in Malagasy as a tool for financial literacy sessions at the level of other Village agents - PSPs - VSLA federations ..., and members of VSLAs.</p>	Relay agents	26	26	52	November 2021	Ambositra - Antsirabe
28	Communal	SO3	Local Promoters review	<p>Allow Local promoters to share their experiences</p> <p>Make an assessment and establish an action plan for the coming GUS cycle (FY22)</p> <p>Do a follow-up of the local promoters / local masons / local seamstresses'</p>	Local Promoters, ATEAH, Local seamstresses, Local mason, village agent	125	167	292	November and December 2021	Vakinankaratra

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				collaboration action plan - identify the opportunities and challenges to update their collaboration strategy and improve WASH service providers sales						
29	Communal	SO2-SO3	Business plan for VSLA project	Enable VSLAs to make a workable Business plan for their projects so that they can share it with potential partners such as Communes, WSP, other local partners.	VSLA members, ATEAH, WSP	40	126	166	November and December 2021	Lokomby, Ambohitrova, Fenomby, Andemaka, Vohitrindry, Antaretra, Andonabe, Ambatofotsy
30	Regional	SO3	Financial literacy	Provide basic knowledge of financial products and risks to enable them to make appropriate choices, better manage their budget, and make better use of financial services.	Subgrantee Team	4	1	5	November 2021	Ambositra

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
31	Communal	SO2-SO3	Business plan for VSLA project	Enable VSLAs to make a workable Business plan for their projects so that they can share it with potential partners such as: Communes, WSP, other local partners.	TA	6	5	11	November and December 2021	Lokomby, Ambohitrova, Fenomby, Andemaka, Vohitrindry, Antaretra, Andonabe, Ambatofotsy
32	National	Gender and social inclusion	Men engaged in WASH	Support men committed to women's empowerment in WASH and share their role model	Mayors, traditional leaders, Chief Fokontany, local customs, local masons, local promoters, members of partner associations, representatives of the central Ministry of Population, Directors of the regions, representative of the Governor of the Vatovavy region, representatives of	21	10	31	December 7 and 8, 2021	Manakara

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					gender focal points of the region, members of the team of RANO WASH partners in the six regions					
33	Regional	Gender and social inclusion	Gender focal point in Vatovavy Fitovinany	Provide a space for women and men to discuss their experiences as gender focal point in the regional level and strengthen their capacity gender and social inclusion	President of Association, pastor, journalist, members of scouting movements, Association of Muslim women, representatives of the ministries of education, public health and population, prison administrators, in Vatovavy Fitovinany	3	37	40	December 6, 2021	Manakara
34	Regional	Gender and social inclusion	Women's leadership	Provide a space for women to discuss their experiences as leaders and strengthen their capacity on leadership	Mayor, member in SLC, Direction of Ministry of Population, Chef District Betafo,	0	29	29	November 30, 2021	Vakinankaratra

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				and on women's empowerment related on WASH	doctor, DREN, Local Promotor, AV, PSP, TA					
35	Regional	Gender and social inclusion	Operational review with three CARE regions	Ensure the involvement of region CARE team in gender promotion efforts according to their respective responsibilities	Members of SO1, SO2, SO3, MEAL and program support team, representants of stake holders' team (coordinator and MEAL) from the three regions	12	42	54	November 9 to 11, 2021	Foulpointe
36	Regional	MEAL	Refresher MEAL System	Refresher on MEAL System Updates	TA, SZ, RT, ARSE of the NGO Miarintsoa	11	3	14	November 25 and 26, 2021	Fianarantsoa
37	Regional	MEAL	Refresher MEAL System	Refresher on MEAL System Updates	TA, SZ, ARSE of the NGO Ny Tanintsika	15	7	22	December 22, 2021	Manakara
38	Regional	MEAL	Orientation on learning	Framing on learning and capitalization technique	SZ, Officers, Coordinator, VSLA technician, and MEAL	9	3	12	November 24 and 25, 2021	Ambatondrazaka

Training Q2.22



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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
1	Communal	SOI	Budgeting and local taxation training for 4 core Communes	Train local authorities on commune-level budgeting and local taxation	Mayor, Treasurer/Accountant, STEAH, OSCEAH President, President of commune council, TA and SZ	17	2	19	January 2022	Vohipeno, Vatovavy Region
2	Regional	SOI	Monitoring and evaluation of feedback register use and refresher training	Assess the use of feedback registers – improvement plan and refresher training	Commune-level OSCEAH Ambodiriana, Antanifotsy, President et vice-president of Regional OSCEAH, STEAH Ambohimandroso and TA Andranofito	8	3	11	January 2022	Ambohimandroso, Vakinankaratra Region
3	Regional	SOI	Monitoring and evaluation of feedback register use and refresher training	Assess the use of feedback registers – improvement plan and refresher training	Commune-level OSCEAH Soavina, Antsoso, President et vice-president Regional OSCEAH, STEAH Ambohimambol	11	1	12	January 2022	Antanifotsy, Vakinankaratra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					Ma and Alakamisy Anativato					
4	Regional	SOI	Monitoring and evaluation of feedback register use and refresher training	Assess the use of feedback registers – improvement plan and refresher training	Members of Regional OSCEAH and representatives of commune-level OSCEAH	10	2	12	January 14, 2022	Betafo, Vakinankaratra Region
5	Regional	SOI	Post-action review with OSCEAH representatives and STEAH	Post action review after exchange visit during QI Plan support for commune-level OSCEAH	Commune-level authorities and structures (depending on communes)	3	2	5	January 17, 2022	Antsirabe, Vakinankaratra Region
6	Regional	SOI	Post-action review with OSCEAH representatives and STEAH	Post action review after exchange visit during QI Plan support for commune-level OSCEAH	Commune-level OSCEAH Ambodiriana, Antanifotsy, President and vice-president of Regional OSCEAH, STEAH Ambohimandroso	5	1	6	January 18, 2022	Antanifotsy, Vakinankaratra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					and TA Andranofito					
7	Regional	SO I	Refresher training on SE&AM data collection sheets, different approaches and reporting	Ensure quality reporting for relevant and effective decision-making by various actors (Mayor/commune-level staff and executives, DREAH, etc.)	15 STEAH from the District of Ambositra, DREAH technician / SZ	14	3	17	January 18, 2022	Ambositra, Amoron'i Mania Region
8	Regional	SO I	Accountability mechanism training	Mobilize members of committees to ensure their roles and responsibilities in handling received feedback Close feedback handling cycle to communicate feedback and decisions made Report feedback at different levels (Fokontany, Commune, Region)	7 Communes in the District of Fandriana: Members of the commune-level accountability mechanism committees: Mayor, STEAH, commune staff, SZ/TA	24	4	28	January 19, 2022	Fandriana, Amoron'i Mania Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
9	Regional	SOI	Accountability mechanism training	<p>Mobilize members of committees to ensure their roles and responsibilities in handling received feedback</p> <p>Close feedback handling cycle to communicate feedback and decisions made</p> <p>Report feedback at different levels (Fokontany, Commune, Region)</p>	<p>8 Communes in the District of Manandriana: Members of commune-level accountability mechanism committees: Mayor, STEAH, commune staff, SZ/TA</p>	21	5	26	January 19, 2022	Manandriana, Amoron'i Mania Region
10	Regional	SOI	Post-action review with OSCEAH representatives and STEAH	<p>Post action review after exchange visit during QI</p> <p>Plan support for commune-level OSCEAH</p>	<p>Commune-level OSCEAH Soavina, Antsoso, President and vice-president of Regional OSCEAH, STEAH Ambohimambol a and TA Alakamisy Anativato</p>	6	0	6	January 19, 2022	Andranomanel atra , Vakinankaratra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
11	Regional	SO1	A six-month review of Regional OSCEAH	Training and thematic exchange with RAN'EAU Review action plans Plan reforestation	Members of regional OSCEAH and representatives of commune-level OSCEAH	33	5	38	January 20, 2022	Ambohimandroso, Vakinankaratra Region
12	Communal	SO1	Accountability mechanism training for local authorities and structures	Improvement plan and training for the 33 communes to ensure the functionality of accountability mechanism tools	Commune-level authorities and structures (depending on communes)	301	194	495	January 21, 2022	Betafo, Vakinankaratra Region
13	Regional	SO1	Accountability Mechanism training	Set up accountability mechanism committees Train on their roles and responsibilities Train on the method and principles of use of accountability mechanism tools	15 Communes in the District of Ambositra: Members of commune-level accountability mechanism committees: Mayor, STEAH, commune staff, SZ/TA	41	12	53	January 19 and 21, 2022	Ambositra, Amoron'i Mania Region
14	Communal	SO1	Commune-level WASH	Assess achievements	Commune executives and council members	27	36	63	January 19 and	Andranovorivato, Haute

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			governance analysis	Improvement plan for the sector at commune-level	(SLC), local masons, local seamstresses, water managers, users, OSCEAH				20, 2022	Matsiatra Region
15	Regional	SO I	Refresher training on SE&AM data collection sheets, different approaches and reporting	Ensure quality reporting for relevant and effective decision-making by various actors (Mayor/commune-level staff and executives, DREAH, etc.)	7 SEAH from the District of Fandriana, DREAH technician / SZ	8	1	9	January 21, 2022	Fandriana, Amoron'i Mania Region
16	Communal	SO I	Commune-level WASH governance analysis	Assess achievements Improvement plan for the sector at commune-level		37	15	52	January 21 and 22, 2022	Andranomiditra, Haute Matsiatra Region
17	Communal	SO I	Commune-level WASH governance analysis	Assess achievements Improvement plan for the sector at commune-level		31	22	53	January 20 and 21, 2022	Androy, Haute Matsiatra Region
18	Communal	SO I	Commune-level WASH	Assess achievements		34	18	52	January 24 and	Andrainjato, Haute

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			governance analysis	Improvement plan for the sector at commune-level					25 2022	Matsiatra Region
19	Communal	SOI	Commune-level WASH governance analysis	Assess achievements Improvement plan for the sector at commune-level		26	29	55	January 24 and 25, 2022	Ambalamahasoa, Haute Matsiatra Region
20	Communal	SOI	Commune-level WASH governance analysis	Assess achievements Improvement plan for the sector at commune-level		24	18	42	January 24 and 25, 2022	Maneva, Haute Matsiatra Region
21	Communal	SOI	Commune-level WASH governance analysis	Assess achievements Improvement plan for the sector at commune-level		27	23	50	January 24 and 25, 2022	Ihazoara, Haute Matsiatra Region
22	Regional	SOI	Refresher training on SE&AM data collection sheets, different approaches and reporting	Ensure quality reporting for relevant and effective decision-making by various actors (Mayor/commune-level staff and executives, DREAH, etc.)	8 STEAH from the District of Manandriana, DREAH technician / SZ	10	0	10	January 27, 2022	Manandriana , Amoron'i Mania Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
23	Regional	SOI	OSCEAH Review	<p>Refresher training on roles and responsibilities of OSCEAH members</p> <p>Setup 4 District level OSCEAH (Manakara, Ifanadiana, Ikongo and Vohipeno)</p>	President of Regional OSCEAH V7V and members of commune-level OSCEAH	42	17	59	February and March 2022	Vohipeno and Manakara in Vatovavy region
24	Regional	SOI	Training on various M&E tools	<p>Introduction to SE&amp;AM and mWater</p> <p>Setup mWater and relevant accounts on smartphones</p> <p>Share other relevant materials</p>	Members of SRMO, Governor's office, Mayor of the Urban Commune of Ambositra, DRSP, DRAEP, DREN, DR Population, DREDD, DRCC, UNICEF, AIM, ORN, JIRAMA, ONG NY Tanintsika, Regional OSCEAH, Red Cross, Young Adventist, Antily Madagasikara, VOZAMA, HINA	18	12	30	February 25, 2022	Ambositra, Amoron'i Mania Region



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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					Platform, Association Ny Mamoha, SAHI NGO, CARE KILONGA, RANOWASH					
25	Regional	SOI	Budgeting and local taxation training for 4 core Communes	Determine local potential resources be tapped into and / or mobilized to increase commune revenues	Mayor, Treasurer/Accountant, STEAH, OSCEAH President, President of commune council (Namorona, Ampasimanjeva, Fenomby and Andonabe), TA and SZ	23	3	25	March 2022	Mananjary, Fitovinany Region
26	Regional	SOI	STEAH monitoring and coaching	Supporting STEAH to ensure the role of infrastructure owner	44 STEAH	41	3	44	March 1 to 3, 2022	Ambatondrazaka Amparafaravola Moramanga, Alaotra

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
										Mangoro Region
27	Regional	SOI	Monitoring and evaluation of feedback register use and refresher training	Assess the use of feedback registers Improvement plan and refresher training	Commune-level OSCEAH Ambodiriana, Antanifotsy, President and vice-president of Regional OSCEAH, STEAH Ambohimandroso and TA Andranofito	8	3	11	March 3 and 4, 2022	Antsirabe, and reforestation in Antsoantany, Vakinankaratra Region
28	National	SOI	Presentation of Sector M&E plan and SE&AM computer tools	Present the monitoring and evaluation plan for the WASH sector Present the SE&AM computer tools	Technical Directorate of MEAH (Water and IWRM), Technical and financial partners of the sector				March 9 and 17, 2022	Antananarivo
29	Regional	SOI	Budget and Taxation training for Mayors and	Train commune authorities on how to ensure WASH sector	Mayors and Treasurers/Accountants	41	9	50	March 22, 2022	Fianarantsoa, Haute Matsiatra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			Treasurers/Accountants	governance at commune-level						
30	Regional	SO1	M&E refresher training for TA and SZ	<p>Ensure quality data in the M&amp;E system</p> <p>Understand different phasing to improve future activity planning</p> <p>Refresher training on evidence (minutes, photos, attendance sheets, etc.)</p> <p>Refresher training on success story reporting</p>	15 TA, 3 SZ, 1 regional coordinator, 1 RT, Regional SO1 Officer for Amoron'i Mania	16	5	21	March 23 and 24, 2022	Ambositra, Amoron'i Mania Region
31	National	SO1	Training on setting up DHIS2 platform	<p>Install and set up the PostgreSQL database</p> <p>Install and setup SE&amp;AM application</p>	SDB/DSISE, Monitoring and Evaluation/DSISE				March 28, 2022	Antananarivo
32	Regional	SO2	Marketing training	The main purpose of the training is to increase WSP skills in selling.	Local WSPs, Field Agent at Municipality (STEAH)	35	12	47	March 2022	Fianarantsoa

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
33	Communal	SO2, SO3	Local seamstresses review	Follow-up seamstresses 'action plans by August 2021 Review achievements Establish implementation strategies to ensure the sustainability of achievements and the continuity of activities Capitalize on success stories and good practices	Local seamstresses	3	91	94	February 2022	Vakinankaratra
35	Communal	SO2, SO3	Orientation workshop for institutional WASH committees	Promote the adoption of WASH healthy behaviors at the institutional level Ensure the availability of funds for the continuity of basic WASH services for users Ensure the availability of a maintenance plan for WASH infrastructure	WASH committee - Maire - ATEAH - CISCO representative - ZAP chief - teachers - parents - students	217	169	386	January - February - March 2022	Vakinankaratra - Haute Matsiatra
36	Communal	SO3	Relay agent review	Capitalize on good practices and success stories Share achievements and	Relay agents	26	52	78	January - February 2022	Vakinankaratra - Haute Matsiatra

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				experiences on how to set up and support VSLA groups Focus on the appropriate strategy for the sustainability of VSLA groups and members' achievements						
37	Communal	SO3	Local promoters' capacity strengthening	Strengthen local promoters in terms of facilitation of household visits and group talk Review achievements, good practices and lessons learned	local promoters	29	57	86	February and March 2022	Haute Matsiatra
38	Communal	SO3	VSLA training	Train members on the basics of a VSLA group (general assembly, by-laws and rules, savings and loans etc.) Supervise VSLAs'first meeting Guide on the techniques around capital distribution at the end of the cycle	VSLA group members	34	300	334	January and March 2022	Alaotra Mangoro

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
39	National	Gender and social inclusion	Virtual sharing session on gender mainstreaming by RANO WASH	Disseminate key tips adopted by the RANO WASH project in mainstreaming gender and social inclusion through its interventions	Partners and stakeholders in gender at the national level: Ministries, Regional Directorates, NGOs and associations defending women's rights, technical and financial partners	15	23	38	March 3, 2022	Manakara, Vatovavy region
40	Regional	Gender and social inclusion	Gender focal points in Vatovavy Fitovinany	Provide a space for women and men to discuss their experiences as gender focal points in the regional level and strengthen their capacity for gender and social inclusion	President of Association, pastor, journalist, members of scouting movements, Association of Muslim women, representatives of the ministries of education, public health and population, prison administrators, in	3	37	40	March 4, 2022	Manakara, Vatovavy region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					Vatovavy Fitovinany					
41	Regional	Gender and social inclusion	Gender-sensitive communication for journalists	Journalists are committed and able to promote gender equality and social inclusion through their interventions and communication work	L'association des journalistes locaux, le MPPSPF/DRPPSPS V7V,	15	10	25	March 4, 2022	Manakara, Vatovavy region
42	Regional	Gender and social inclusion	Women's advocacy in WASH	The advocacy objects of women's empowerment are heard by the local authorities and will be addressed.	Mayors, communal advisor, water system manager, local customs, local masons, local promoters, members of partner associations, representatives of the central Ministry of Population, Ministry of Education, Ministry of Public Health, Ministry of	6	36	42	March 7, 2022	Foulpointe, Atsinanana

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					Decentralization, Ministry of Environment, Directors of the regions, representatives of gender focal points of the region, members of the team of RANO WASH partners in the six regions					
43	Regional	MEAL	Refresher MEAL System	Refresher on MEAL System Updates	TA, SZ, RT, ARSE of the NGO MIARINTSOA	11	4	15	30 March 2022	Fianarantsoa
44	Regional	MEAL	Training of ICGs on tools for collecting data from water beneficiaries and operationalization of the collection system	GIC initiation on the collection system and testing of the DHIS2 tool	STEAH, GIC, TA, MEAL SUB, REGIONAL MEAL OFFICER et MEAL PCT	7	1	8	March 25th and 26th 2022	Beforona-Alaoatra Mangoro
45	Regional	MEAL	Training of ICGs on tools for collecting data from water	GIC initiation on the collection system and	STEAH, GIC, TA, MEAL SUB, REGIONAL MEAL	6	0	6	March 22nd and	Fanandrana-Atsinanana



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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			beneficiaries and operationalization of the collection system	testing of the DHIS2 tool	OFFICER et MEAL PCT				23rd 2022	
46	Regional	MEAL	Training of ICGs on tools for collecting data from water beneficiaries and operationalization of the collection system	GIC initiation on the collection system and testing of the DHIS2 tool	STEAH, GIC, Min EAU, Regional MEAL et MEAL PCT	27	11	38	March 22nd and 23rd 2022	Vatovavy, Fitovinany, Haute Matsiatra and Amoron'i Mania regions
47	National	Transversal	PeopleSoft	Presentation of the PeopleSoft tool Handling of the tool on the various functionalities Discussion group on the impacts of the change	RANO WASH staff	17	8	25	February and March 2022	Tana-Fianarantsia-Amoron'i Mania, Haute Matsiatra
<b>Traning activtiies Q3.FY22</b>										
I	National	SOI	DHIS2/ pivot table DHIS2/Dashboard/Graph		DSISE/ Database Service / Monitoring Monitoring-evaluation	4	1	5	April 4,5 and 6, 2022	Antananarivo

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					department					
2	National	SO I	DHIS2/ pivot table DHIS2/Dashboard/Graph		DSISE/ Database Service / Monitoring Monitoring-evaluation department	4	1	5	April 12,13 and 14, 2022	Antananarivo
3	National	SO I	DHIS2/ pivot table DHIS2/Dashboard/Graph		DSISE/ Database Service / Monitoring Monitoring-evaluation department	4	1	5	Week of May 9, 2022	Antananarivo
4	National	SO I	DHIS2/ pivot table DHIS2/Dashboard/Graph		DSISE/ Database Service / Monitoring Monitoring-evaluation department	4	1	5	Week of May 23, 2022	Antananarivo

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
5	National	SOI	DHIS2/ pivot table DHIS2/Dashboard/Graph	DSISE/ Database Service / Monitoring Monitoring-evaluation department		4	1	5	Week of June 6,13 and 20, 2022	Antananarivo
6	Commune Level	SOI	WASH Budget at Commune Level	Support communes to increase their WASH budget and entrust the continuation of support on budget to SRB.	Mayor, Accounting Treasurer, SRB team and Public Procurement Commission, RANO WASH project team	38	17	55	June 1st, 2022	Ambatondrazaka, Alaotra Mangoro Region
7	Commune Level	SOI	Handover Workshop of PCDEAH document	Updated and finalized document	Mayor, ATEAH, CSO, SLC, FKT Chiefs, CSB Chief, Traditional Leaders, President of municipal council, Treasurer Accountant	25	4	29	May 30, 2022	Mahamaibe, Vatovavy Region
8	Commune Level	SOI	Handover Workshop of PCDEAH document	Updated and finalized document	Mayor, CSO, SLC, User Association, TA, FKT chiefs, Traditional Leaders, President of municipal council, Treasurer	13	1	14	May, 19, 2022	Ambohitrova, Vatovavy Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					Accountant, Delegated Manager of water infrastructure					
9	Commune Level	SO1	Training of new ATEAH FY-22, last batch	<ul style="list-style-type: none"> <li>• Progress towards the empowerment of intervention Communes to become effective infrastructure and project management for the WASH sector,</li> <li>• Capacity building of new ATEAHs in the implementation of CLTS in order to support their villages to reach “ODF” status,</li> </ul>	Mayor, CSO, SLC, User Association, TA, FKT chiefs, Traditional Leaders, President of municipal council, Treasurer Accountant, Delegated Manager of water infrastructure	13	1	14	May, 19, 2022	Ambohitrova, Vatovavy Region
10	Commune Level	SO1	Water user association training	<ul style="list-style-type: none"> <li>• Capacity building of water user associations in order to have a sustainable and equitable WASH service,</li> <li>• Improving accountability and</li> </ul>	ATEAH	3	1	4	April 11 to 15, 2022	Ifanadiana, Fitovinany Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				transparency in WASH service, <ul style="list-style-type: none"> <li>• Experience-sharing between beneficiaries and developing their action plan;</li> </ul>						
11	Commune level	SO1	Capacity building of local structures (CSO and SLC), Ensuring sustainability of achievements (action plan) and reminder of their missions and responsibilities, Update the list of members	<ul style="list-style-type: none"> <li>• Capacity building of water user associations in order to have a sustainable and equitable WASH service,</li> <li>• Improving accountability and transparency in WASH service,</li> <li>• Experience-sharing between beneficiaries and developing their action plan;</li> </ul>	2 representatives of the 7 core Communes (Antaretra, Andonabe, Namorona, Ampasimanjeva, Lokomby, Vohitrindry, Fenomby)	8	6	14	May 10 and 11, 2022	Vohipeno, Vatovavy Region
14	Commune level	SO1	Capacity building of local structures (CSO and SLC),	<ul style="list-style-type: none"> <li>• Capacity building of water user associations in order to have a sustainable and equitable WASH service,</li> </ul>	All user association members	19	3	22	May 19 and 20, 2022	Mahazoarivo, Vatovavy Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			Ensuring sustainability of achievements (action plan) and reminder of their missions and responsibilities, Update the list of members	<ul style="list-style-type: none"> <li>Improving accountability and transparency in WASH service,</li> <li>Experience-sharing between beneficiaries and developing their action plan;</li> </ul>						
15	Commune Level	SOI	Training on the Water Code and the responsibilities of water user associations, Constitution of members, Reminder on the responsibilities and functionalities of accountability mechanism tools and structures and practicing	Operational water user associations	Mayor, ATEAH, members of WASH CSO and SLC, FKT chiefs, local seamstresses, Chief Operating Officer of Mickael Enterprise	22	8	30	May 19, 2022	Antaretra, Fitovinany Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			community scorecards							
16	Regional	SOI	Methodological approach to learning about inclusive Accountability Mechanism Inclusion on the use of interview guides for communities, local authorities and water infrastructure Managers	Capitalization of achievements in the implementation of accountability mechanisms	Commune staff, FKT Chiefs, Members of water user associations, representatives of WASH CSO and SLC	10	5	15	June 21, 2022	Vohimasina Nord, Vatovavy Region
17	Regional	SOI	Social marketing for the promotion of drinking water services Approach and Methodology on	Reaching the aimed number of water beneficiaries in the core communes	3 Participants: SOI and 2 implementing partner AIM staff	2	1	3	June 11, 2022	Ambositra, Amoron'i Mania Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			community sensitization Filling data collection tools							
18	Commune Level	SO1	Refresher training on roles and responsibilities of water user associations Difference between ASUREP / WASH CSOs Functionality of the accountability mechanism Roles and Responsibilities of different actors: Municipality / water user association / Private Manager	ASUREP involvement and participation in the development of WASH services Importance of accountability mechanisms Importance of IWRM	10 Participants in total regional RW Staff: 5 AIM implementing partner staff: 3 Care headquarter: 2	7	3	10	June 3, 2022	Ambositra, Amoron'i Mania Region



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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			of water infrastructure							
14	Commune Level	SO1		Render WASH CSO operational in the development of the WASH sector	13 Members of water user associations	7	6	13	May 13, 2022	Ivato Centre, Amoron'i Mania Region
19	Commune Level	SO1		ASUREP involvement and participation in the development of WASH services Importance of accountability mechanisms Importance of IWRM	8 Members of WASH CSOs	3	5	8	May 24, 2022	Ilaka Centre, Amoron'i Mania Region
20	Commune Level	SO1		Render WASH CSO operational in the development of the WASH sector	9 Members of water user associations	4	5	9	June 12, 2022	Ilaka Centre, Amoron'i Mania Region
21	Commune Level	SO1		Water user association involvement and participation in the development of WASH services	11 Members of water user associations	5	6	11	June 13, 2022	Vinany Andakatanikel y, Amoron'i Mania Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				Importance of accountability mechanisms Importance of IWRM						
22	Regional	SOI	Evaluation and self-diagnosis workshop with regional WASH CSO	Evaluation and Self-diagnosis of the regional WASH CSO	14 Members of water user associations	4	10	14	June 1, 2022	Ankazoambo, Amoron'i Mania Region
23	Regional	SOI	Workshop with Decentralized Services and Decentralized Authorities	Develop strategies to support communes in program budget, WASH budget, taxation and SLC	Members of the regional WASH CSO, RAN'Eau, TA and SOI	9	5	14	April 12, 2022	Antsirabe, Vakinankaratra Region
24	Regional	SOI	Workshop with WASH CSO from Antsirabe II district	Evaluation and Self-diagnosis of the WASH CSOs of the II communes of Antsirabe II	Representatives of the WASH CSOs from the II communes, TA, RD and SOI	17	7	24	April 19, 2022	Antsirabe, Vakinankaratra Region
25	Regional	SOI	Workshop with WASH CSO	Evaluation and Self-diagnosis of the WASH CSOs of the II	Representatives of the WASH CSO from the II	12	12	24	April 21, 2022	Antanifotsy, Vakinankaratra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			from Antanifotsy district	communes of Antanifotsy	communes, TA, RD and SO2					
26	Regional	SO1	Workshop with WASH CSO from Betafo district	Evaluation and Self-diagnosis of the 11 communes of Betafo	Representatives of the WASH CSOs from the 11 communes, TA, RD and SO3	14	8	22	April 25, 2022	Betafo, Vakinankaratra Region
27	Regional	SO1	WASH Sharing and learning workshop on behavior change and WASH system approach	Sharing and learning workshop on behavior change and WASH system approach	Region, DREAH, DREN, DRPPSPF, DRS, Heads of the 3 districts, SAF FJKM, RAN'Eau, EC Abraham (Soanindrariny), RANO WASH, ATEAH of the intervention communes of RANO WASH, Mayors, PL, local masons, local seamstresses, VSLA members, representatives of	80	35	115	May 24 and 25, 2022	Antsirabe, Vakinankaratra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					commune WASH CSOs)					
28	Regional	SO I	Workshop to report on the status of the 7 pilot communes	Implementation of strategies to support communes on program budget, WASH budget, taxation and SLC	DREAH, SRB, DRI, Heads and deputies of the 3 districts, Mayors of the 7 pilot communes, RANO WASH team	18	7	25	June 16, 2022	Antsirabe, Vakinankaratra Region
29	Regional	SO I	STEFI results presentation workshop	Present STEFI results of the systems in Faratsiho, Andranomanelatra and Ambatomiady	DREAH, RAN'Eau, RANO WASH, Betafo and Antsirabe II Districts, Mayors of Andranomanelatra, Soanindrariny, Ambohitsimanova, Antsoantany, Ambano, Mandoto, Betafo, 2ADH, ECA, Lova Velu, Ranovelona, BETMG2C,	25	10	35	June 22, 2022	Antsirabe, Vakinankaratra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
					Miharindrano, ATEAH of Ambohimambol a, Antsoantany, Ambohitsimanova, Soanindrariny					
30	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	<ul style="list-style-type: none"> <li>- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and</li> <li>- Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,</li> </ul>	Chef d'exploitation GIC, MEAL regional, MEAL PCT, RD, TA	5	2	7	May 24, 2022	Bureau Commune Soanindrariny, District Antsirabe II
31	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the	<ul style="list-style-type: none"> <li>- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and</li> <li>- Strengthen the capacity of the MEALs in the six regions, who will</li> </ul>	ATEAH, Chief of exploitation of the GICs, TA , MEAL SUB, Regional MEAL Officer et MEAL PCT	7	1	8	May 24 and 25, 2022	BEFORONA

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			project's MEAL withdrawal plan.	take over the training of other GIC personnel,						
32	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and - Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,	Chief of exploitation of the GICs, ATEAH, MEAL partenaire, MEAL regional, DREAH, RD, TA	9	0	9	May 25, 2022	Bureau Commune Antsoatany, District Antsirabe II
33	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and - Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,	Chief of exploitation of the GICs, ATEAH, Regional MEAL Officer et MEAL PCT	4	2	6	27 and 28 May 2022	Foulpointe

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
34	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	<ul style="list-style-type: none"> <li>- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and</li> <li>- Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,</li> </ul>	Chief of exploitation of the GICs, ATEAH, MEAL Subgrantee, MEAL regional, MEAL PCT, RD, TA	6	3	9	May 26 and 27, 2022	Bureau Commune Ivato centre, District Ambositra
35	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	<ul style="list-style-type: none"> <li>- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and</li> <li>- Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,</li> </ul>	Chief of exploitation of the GICs, ATEAH, MEAL Subgrantee, MEAL regional, MEAL PCT, TA	5	1	6	May 30 and 31, 2022	Salle de reunion Commune Androy, District Lalangina
36	Regional	MEAL	Training of GICs on water beneficiary data collection tools and	<ul style="list-style-type: none"> <li>- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2;</li> </ul>	Chief of exploitation of the GICs, ATEAH, MEAL Subgrantee,	9	4	13	June 02 and 03, 2022	Bureau Commune Lokomby, District Manakara

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			operationalization of the collection system as part of the project's MEAL withdrawal plan.	and - Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,	MEAL regional, DREAH, RD, TA					
37	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2	Chief of exploitation of the GICs, ATEAH, MEAL Subgrantee, TA, MEAL regional	4	1	5	June 14, 2022	Andemaka
38	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2	Chief of exploitation of the GICs, ATEAH, MEAL Subgrantee, TA, MEAL regional	3	1	4	June 14, 2022	Vohitrindry



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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			project's MEAL withdrawal plan.							
39	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2	Chief of exploitation of the GICs, ATEAH, MEAL Subgrantee, MEAL regional, MEAL PCT, TA	2	1	3	June 21 and 22, 2022	Andrainjato-Ambalavao
40	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and - Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,	Chief of exploitation of the GICs, ATEAH, Regional MEAL Officer et MEAL PCT	4	2	6	27 and 28 May 2022	Foulpointe

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
41	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2	Chief of exploitation of the GICs, Regional MEAL Officer	2	0	2	June 21, 2022	Ampasimadini ka Manambolo
42	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2	Chief of exploitation of the GICs, Regional MEAL Officer	2	0	2	June 21, 2022	Niarovana Caroline
43	Regional	SO3	CLTS	Train ATEAH in CLTS	ATEAH	3	1	25	April 2022	Ifanadiana, Fitovinany

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
44	Regional	SO3	WASH in Institutions	Train institutional WASH committees in the practice of WASH behaviors and the sustainability of WASH services	WASH actors in institutions	22	7	29	April 2022	Fianarantsoa, Haute Matsiatra
45	Regional	SO3	VSLA	Support the creation of savings groups	VSLA members	40	384	424	April to June 2022	Alaotra Mangoro / Vakinankaratra / Vatovavy and Fitovinany
46	Communal	SO3	Behaviour change	Create a space for exchange and sharing with counterparts in the Atsinanana region	District chief, DREAH, DREN, DRPPSPF, Maire, ATEAH, OSCEAH, KRFF, AR,CL	10	14	24	April 19-23, 2022	Toamasina, Mahatsara, Ampasimadinka, Tsarasambo/ Atsinanana
47	District	SO3	Relays agents training	Exchange and capitalize on the different experiences of relay agents in supporting savings groups	Relay agents	9	12	21	June 2022	Vakinankaratra
48	Regional	Gender	Inclusive WASH products	Train local masons and seamstresses by using	Local masons and seamstresses	6	10	16	May 2022	Manakara, Vatovavy

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				the reminding cards Asa fa tsy kabary						
49	District	SO3	Relays agent revieww	<p>Capitalization of good practices and success stories</p> <p>Sharing of achievements and experiences in setting up and supporting VSLA groups</p> <p>Familiarization of intermediary agents with the use of the trainer's manual and the advice card as a tool for duplicating financial education sessions among savings group members.</p> <p>members of savings groups</p> <p>Popularization of the RPGEM code of ethics</p>	Relays agent	3	7	10	June 2022	Antsirabe, Vakinankaratra

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
50	Regional	SO3	VSLA	Train savings group cluster members on key cluster concepts	Cluster members	7	5	12	June 2022	Fianarantsoa, Haute Matsiatra
51	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2	Chief of exploitation of the GICs, ATEAH, MEAL Subgrantee, TA, MEAL regional	3	1	4	June 14, 2022	Vohitrindry
52	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2	Chief of exploitation of the GICs, ATEAH, MEAL Subgrantee, MEAL regional, MEAL PCT, TA	2	1	3	June 21 and 22, 2022	Andrainjato-Ambalavao

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
53	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	<ul style="list-style-type: none"> <li>- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and</li> <li>- Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,</li> </ul>	Chief of exploitation of the GICs, ATEAH, Regional MEAL Officer et MEAL PCT	4	2	6	27 and 28 May 2022	Foulpointe
54	Regional	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	<ul style="list-style-type: none"> <li>- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2</li> </ul>	Chief of exploitation of the GICs, Regional MEAL Officer	2	0	2	June 21, 2022	Ampasimadini ka Manambolo
55	Regional	MEAL	Training of GICs on water beneficiary data collection tools and	<ul style="list-style-type: none"> <li>- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2</li> </ul>	Chief of exploitation of the GICs, Regional MEAL Officer	2	0	2	June 21, 2022	Niarovana Caroline

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			operationalization of the collection system as part of the project's MEAL withdrawal plan.							
56	Regional	SO3	CLTS	Train ATEAH in CLTS	ATEAH	3	1	25	April 2022	Ifanadiana, Fitovinany
57	Regional	SO3	WASH in Institutions	Train institutional WASH committees in the practice of WASH behaviors and the sustainability of WASH services	WASH actors in institutions	22	7	29	April 2022	Fianarantsoa, Haute Matsiatra
58	Regional	SO3	VSLA	Support the creation of savings groups	VSLA members	40	384	424	April to June 2022	Alaotra Mangoro / Vakinakaratra / Vatovavy and Fitovinany
59	Communal	SO3	Behaviour change	Create a space for exchange and sharing with counterparts in the Atsinanana region	District chief, DREAH, DREN, DRPPSPF, Maire, ATEAH, OSCEAH, KRFF, AR,CL	10	14	24	April 19-23, 2022	Toamasina, Mahatsara, Ampasimadinka,

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
										Tsarasambo/Atsinanana
60	District	SO3	Relays agents training	Exchange and capitalize on the different experiences of relay agents in supporting savings groups	Relay agents	9	12	21	June 2022	Vakinankaratra
61	Regional	Gender	Inclusive WASH products	Train local masons and seamstresses by using the reminding cards Asa fa tsy kabary	Local masons and seamstresses	6	10	16	May 2022	Manakara, Vatovavy
62	District	SO3	Relays agent review	Capitalization of good practices and success stories Sharing of achievements and experiences in setting up and supporting VSLA groups Familiarization of intermediary agents with the use of the trainer's manual and the advice card as a tool for duplicating financial	Relays agent	3	7	10	June 2022	Antsirabe, Vakinankaratra



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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				education sessions among savings group members.  members of savings groups  Popularization of the RPGEM code of ethics						
63	Regional	SO3	VSLA	Train savings group cluster members on key cluster concepts	Cluster members	7	5	12	June 2022	Fianarantsoa, Haute Matsiatra
<b>Traning activitiies Q4.FY22</b>										
1	Regional	MEAL	Training of ATEAHs on data collection through DHIS2-SE&AM	ATEAH able to report data from their Communes in the DHIS2-SE&AM platform	ATEAH	40	9	49	July 24 – 25, 2022	Toamasina, Atsinanana Region
2	Commune level	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and - Strengthen the capacity of the MEALs in the six regions, who will	Chief of exploitation of the GICs	1	0	1	July 19 – 20, 2022	Andrainjato Est Haute Matsiatra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			project's MEAL withdrawal plan.	take over the training of other GIC personnel,						
3	Commune level	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,	Chief of exploitation of the GICs, ATEAH	2	2	4	July 26-27, 2022	Ifanadiana Fitovinany Region
4	Commune level	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and - Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,	Chief of exploitation of the GICs	1	0	1	July 27 – 28, 2022	Androy Haute Matsiatra Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
5	Commune level	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,	Chief of exploitation of the GICs, ATEAH, RD, TA	3	2	5	August 2-3, 2022	Anosibe Ifody Alaoatra Mangoro Region
6	Commune level	MEAL	Training of GICs on water beneficiary data collection tools and operationalization of the collection system as part of the project's MEAL withdrawal plan.	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and Strengthen the capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,	Chief of exploitation of the GICs, ATEAH, TA	2	1	3	August 4- 5, 2022	Sabotsy Anjiro Alaoatra Mangoro Region
7	Commune level	MEAL	Training of GICs on water beneficiary data collection tools and	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection	Chief of exploitation of the GICs, ATEAH, TA	4	1	5	August 10- 11, 2022	Alaoatra Mangoro Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			operationalization of the collection system as part of the project's MEAL withdrawal plan.	tools through DHIS2; and  Strengthen the capacity of the MEALS in the six regions, who will take over the training of other GIC personnel,						
8	Regional	MEAL	Training of trainers for the DREAH staff on the operationalization of the data collection system with the SE&AM DHIS2 system	- DREAH staff trained on the handling and operation of the SE&AM platform - - DREAH staff able to train their PTFs and Communes on the handling of the DHIS2 - DREAH staff knows their role in the operationalization of the system	DREAH team, 2ADH, ORN, Ec Abraham, SOI	4	6	10	August 16- 17, 2022	Fianarantsoa Haute Matsiatra Region
9	Regional	SOI	Capacity building of DREAH, technical partners, regional technical staff of RW and	Use of the new SE&AM Platform Information and Data flow	12 Participants: MEAH, PCT, Regional RANO WASH / AIM,	10	2	12	August 16- 17th, 2022	Ambositra, Amoron'i Mania Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			implementing partner AIM on:	<p>Access to the web format of SE&amp;AM</p> <p>Roles of Technical and Financial Partners</p> <p>Access to the mobile format of DHIS2</p> <p>Synchronizing, viewing and validating data</p> <p>Using the data</p> <p>Drill for data flow</p> <p>Entering data</p> <p>Data entry questionnaires</p>	Technical and Financial Partners					
10	Regional	MEAL	Training of ATEAHs on data collection through DHIS2-SE&AM	<p>ATEAH able to report data from their Communes in the DHIS2-SE&amp;AM platform</p>	ATEAH	27	3	30	August 2022	Ambositra, Amoron'i Mania Region
11	Regional	MEAL	Training of trainers for the DREAH staff on the operationalization of the data collection system	<p>- DREAH staff trained on the handling and operation of the SE&amp;AM platform - - DREAH staff able to train their PTFs and Communes on the handling of the DHIS2</p> <p>- DREAH staff knows</p>	DREAH team, HINA, SAHY, JIRAMA	6	2	8	August 16- 17, 2022	Ambositra, Amoron'i Mania Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			with the SE&AM DHIS2 system	their role in the operationalization of the system						
12	Regional	SOI	Capacity building of STEAH, regional technical staff of RW and implementing partner AIM (Commune/Local Level)	<p>Use of the new SE&amp;AM Platform Information and Data flow</p> <p>Access to the web format of SE&amp;AM Roles of Technical and Financial Partners</p> <p>Access to the mobile format of DHIS2 Synchronizing, viewing and validating data</p> <p>Using the data Drill for data flow</p> <p>Entering data</p> <p>Data entry questionnaires</p>	32 Participants: Regional RANO WASH / AIM, DREAH, MEAH, 25 STEAH	27	5	32	August 18-19th, 2022	Ambositra, Amoron'i Mania Region
13	Regional	MEAL	Training of ATEAHs on data collection through DHIS2-SE&AM	ATEAH able to report data from their Communes in the DHIS2-SE&AM platform	ATEAH	29	0	29	August 18- 19, 2022	Ambositra, Amoron'i Mania Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
14	Regional	MEAL	Training of trainers for the DREAH staff on the operationalization of the data collection system with the SE&AM DHIS2 system	<ul style="list-style-type: none"> <li>- DREAH staff trained on the handling and operation of the SE&amp;AM platform - - DREAH staff able to train their PTFs and Communes on the handling of the DHIS2</li> <li>- DREAH staff knows their role in the operationalization of the system</li> </ul>	DREAH team	1	1	2	August 22- 23, 2022	Toamasina, Atsinanana Region
15	Regional	MEAL	Training of trainers for the DREAH staff on the operationalization of the data collection system with the SE&AM DHIS2 system	<ul style="list-style-type: none"> <li>- DREAH staff trained on the handling and operation of the SE&amp;AM platform - - DREAH staff able to train their PTFs and Communes on the handling of the DHIS2</li> <li>- DREAH staff knows their role in the operationalization of the system</li> </ul>	DREAH team	4	5	9	August 22- 23, 2022	Fianarantsoa Haute Matsiatra Region
16	Regional	MEAL	Training of ATEAHs on data collection	ATEAH able to report data from their	ATEAH	18	2	20	August 24- 25, 2022	Fianarantsoa Haute

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			through DHIS2-SE&AM	Communes in the DHIS2-SE&AM platform						Matsiatra Region
17	Commune Level	SOI	Training of the ASUREP of the Rural Commune of Tolongoina	Capacity building to members of the association after its restructuring	All members	12	4	16	August 26-27, 2022	Tolongoina, Vatovavy Region
18	Regional	MEAL	Training of trainers for the DREAH staff on the operationalization of the data collection system with the SE&AM DHIS2 system	<ul style="list-style-type: none"> <li>- DREAH staff trained on the handling and operation of the SE&amp;AM platform - - DREAH staff able to train their PTFs and Communes on the handling of the DHIS2</li> <li>- DREAH staff knows their role in the operationalization of the system</li> </ul>	DREAH staff, GIC, JIRMA, MEAL, SOI	11	1	12	August 29- 30, 2022	Ambatondraza ka Alaotra Mangoro Region
19	Commune Level	SOI	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to the beneficiary communities of these services</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	17	3	20	August 17-18, 2022	Fenomby, Vatovavy Region



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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				<ul style="list-style-type: none"> <li>Strengthening of internal and external communication through the use of new technologies by the Communes</li> </ul>						
20	Commune Level	SO I	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to the beneficiary communities of these services</li> <li>Strengthening of internal and external communication through the use of new technologies by the Communes</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	9	3	12	August 19-20, 2022	Andonabe, Fitovinany Region
21	Commune Level	SO I	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to the beneficiary communities of these</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	12	2	14	August 22-23, 2022	Namorona, Fitovinany Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				<ul style="list-style-type: none"> <li>services</li> <li>Strengthening of internal and external communication through the use of new technologies by the Communes</li> </ul>						
22	Commune Level	SO I	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to the beneficiary communities of these services</li> <li>Strengthening of internal and external communication through the use of new technologies by the Communes</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	8	3	11	August 23-24, 2022	Ampasimanjeva, Fitovinany Region
23	Commune Level	SO I	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	6	0	6	August 26-27, 2022	Tolongoina, Vatovavy Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				<p>the beneficiary communities of these services</p> <ul style="list-style-type: none"> <li>Strengthening of internal and external communication through the use of new technologies by the Communes</li> </ul>						
24	Regional	SOI	DHIS2/SE&AM training for STEAH	Setting up data collection system for SE&AM	STEAH, RANO WASH team, DREAH,	25	4	29	August 23-24, 2022	Fianarantsoa, Haute Matsiatra Region
25	Commune Level	SOI	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to the beneficiary communities of these services</li> <li>Strengthening of internal and external communication through the use of new technologies by the Communes</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	15	5	20	September 6, 2022	Andonabe, Fitovinany Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
26	Commune Level	SOI	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to the beneficiary communities of these services</li> <li>Strengthening of internal and external communication through the use of new technologies by the Communes</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	37	5	42	August 16-19, 2022	Vakinankaratra
27	Commune Level	SOI	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to the beneficiary communities of these services</li> <li>Strengthening of internal and external communication through the use of new</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	56	4	60	August 29, 2022-September 1, 2022	Alaotra Mangoro

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				technologies by the Communes						
28	Commune Level	SO1	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to the beneficiary communities of these services</li> <li>Strengthening of internal and external communication through the use of new technologies by the Communes</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	27	2	29	August 29, 2022-September 1, 2022	Vatovavy Fitovinany
29	Commune Level	SO1	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>Local governance training in WASH</li> <li>Facilitation of public services and administrative papers to the beneficiary communities of these services</li> <li>Strengthening of internal and external</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	9	1	10	September 13-14, 2022	Mahazoarivo, Vatovavy Region

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N	Level	Project component/ objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
				communication through the use of new technologies by the Communes						
30	Commune Level	SOI	Basic computer skills training for the rural Commune	<ul style="list-style-type: none"> <li>· Local governance training in WASH</li> <li>· Facilitation of public services and administrative papers to the beneficiary communities of these services</li> <li>· Strengthening of internal and external communication through the use of new technologies by the Communes</li> </ul>	Executive and deliberating staff of the Commune, representatives of local structures	9	3	12	September 15-16, 2022	Vohitrindry, Vatovavy Region
31	Commune Level	SOI	Accountability Mechanism Refresher Training: Community Score Cards	CSC refresher training to the drinking water beneficiaries, Communes, managers of water supply and on the importance of Accountability Mechanism tools	Communes – Managers and beneficiaries	12	8	20	September 7, 2022	Fenomby, Vatovavy Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
32	Commune Level	SOI	Accountability Mechanism Refresher Training: Community Score Cards	CSC refresher training to the drinking water beneficiaries, Communes, managers of water supply and on the importance of Accountability Mechanism tools	Communes – Managers and beneficiaries	11	9	20	September 7, 2022	Namorona, Fitovinany Region
33	Commune Level	SOI	Accountability Mechanism Refresher Training: Community Score Cards	CSC refresher training to the drinking water beneficiaries, Communes, managers of water supply and on the importance of Accountability Mechanism tools	Communes – Managers and beneficiaries	14	6	20	September 14, 2022	Ampasimanjev a, Fitovinany Region
34	Commune Level	SOI	Accountability Mechanism Refresher Training: Community Score Cards	CSC refresher training to the drinking water beneficiaries, Communes, managers of water supply and on the importance of Accountability Mechanism tools	Communes – Managers and beneficiaries	15	5	20	September 9, 2022	Mahazoarivo, Vatovavy Region

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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
35	Commune Level	SOI	Accountability Mechanism Refresher Training: Community Score Cards	CSC refresher training to the drinking water beneficiaries, Communes, managers of water supply and on the importance of Accountability Mechanism tools	Communes – Managers and beneficiaries	11	9	20	September 8, 2022	Vohitrindry, Vatovavy Region
36	Commune Level	SOI	Accountability Mechanism Refresher Training: Community Score Cards	CSC refresher training to the drinking water beneficiaries, Communes, managers of water supply and on the importance of Accountability Mechanism tools	Communes – Managers and beneficiaries	14	6	20	September 8, 2022	Lokomby, Vatovavy Region
37	Regional	MEAL	Training of ATEAHs on data collection through DHIS2-SE&AM	ATEAH able to report data from their Communes in the DHIS2-SE&AM platform	ATEAH	44	4	48	August 31, 2022 and September 1, 2022	Ambatondrazaka, Alaotra Mangoro Region
38	Regional	MEAL	Training of trainers for the DREAH staff on the	- DREAH staff trained on the handling and operation of the SE&AM platform - - DREAH	DREAH team, UNV representative,	4	2	6	September 1-2, 2022	Manakara, Fitovinany Region



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N	Level	Project component/objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			operationalization of the data collection system with the SE&AM DHIS2 system	staff able to train their PTFs and Communes on the handling of the DHIS2 - DREAH staff knows their role in the operationalization of the system	RANO WASH team					
39	Regional	MEAL	Training of ATEAH on data collection through DHIS2-SE&AM	ATEAH able to report data from their Communes in the DHIS2-SE&AM platform	ATEAH	51	4	55	September 1-2, 2022	Fitovinany Region
40	Commune level	SO3	Capacity building of RANO WASH supported school	Train staff in public WASH-friendly schools on how to integrate WASH topics into the school curriculum and how to develop action plan to sustain access to WASH service	Chef ZAP, FEFFI president, FRAM president, WASH committees, teachers, ATEAH	22	28	50	September 12-15, 2022	Andonabe, Fitovinany region
41	Commune level	MEAL	Training of GICs on water beneficiary data collection tools and operationalization	- Strengthen the capacity of GICs' farm chiefs and technicians on WASH data collection tools through DHIS2; and - Strengthen the	Chief of exploitation of the GICs	1	0	1	September 27, 2022	Ambatofotsy, Vatovavy region

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N	Level	Project component/ objective	Topic	Objectives	Participants	Men	Women	Total	Date	Location
			n of the collection system as part of the project's MEAL withdrawal plan.	capacity of the MEALs in the six regions, who will take over the training of other GIC personnel,						

## ANNEX 16. RANO WASH TRANSITION PLAN Q4.22 UPDATE

The period FY2022 and FY2023, from October 2021 to June 2023, which represents the final 18-month period of the project, is an opportunity for the RANO WASH consortium partners to complete a series of activities, collectively considered completion, transition, and exit strategies, to support the project's accomplishments for each Strategic Objective (SO) and Intermediate Results (IR).

The RANO WASH transition plan was developed in a participatory manner, considering the input and suggestions of implementing partners and local beneficiaries. Three exit scenarios—**Phase down**, **Phase over**, and **Phase out**—were considered for each of the activities still underway at the beginning of FY2022. A summary of each of these scenarios is provided below.<sup>1</sup>

This document summarizes RANO WASH's transition plan for each of the project's strategic objectives. Brief descriptions of each activity are presented by Intermediary result, as well as the completion indicators that the project will use to monitor the achievement of activities. The levels (local/regional or national) or organizations responsible for implementing the activities are also indicated.

This document is dynamic and will be reviewed each quarter with necessary adjustments

**Phase Down** is about withdrawing and leaving local stakeholders, such as communal authorities, SLCs, and CSOs equipped to maintain and sustain the benefits generated to date,

**Phase Over**: the focus is on sustaining institutional capacity so that vital services can continue. This strategy is designed to ensure that local actors have the skills and resources to continue providing high-quality services.

**Phase Out**: concerns the progressive withdrawal of project implementation teams upon completion of all project activities.

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<sup>1</sup> Definitions from: *Hello, I Must Be Going: Ensuring Quality Services and Sustainable Benefits through Well-Designed Exit Strategies*, Education Development Center, Inc, October 2002.

IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SOI					
<p><b>IRI.1</b></p> <p><b>Strengthened Government and Stakeholder Commitment and Accountability to Sector Development.</b></p> <p>Output 1.1.1 Sector coordination and learning mechanisms operating effectively under strong national leadership</p> <p>Output 1.1.2 Ministry in charge of WASH institutional capacity developed to meet strategic needs</p>	<p>Ensure that the SRMO planning cycle is a regular occurrence at the regional level</p>	<p><b>Phase out:</b> ensure that the phases are planned at the regional level, and the operating modalities are discussed: (Q1: Annual review, Q2: Joint technical and financial planning, Q3: Progress monitoring, Q4: Preparation of annual review and drafting of the sectoral report)</p> <p><b>Phase over:</b> the project will finalize the new planning procedure with the MEAH and the procedures for reminding the DREAHs to respect the timeline.</p>	<p><b>Situation:</b></p> <p>The SRMOs of the country's six regions continue their periodic meetings while waiting for the guidelines promoted by the MEAH during the national coordination meeting in July.</p> <p><b>Situation:</b> Advocated at the sector coordination meeting as well as the monthly meetings between RW and MEAH</p>	<p>Regional team, DREAH, SRMO</p> <p>PCT, regional team, MEAH, DREAH</p>	

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SO1					
<b>IRI.2 Improved Sector Monitoring, Analysis, and Learning, Influencing Policy</b>  Output 1.2.1 SE&AM strengthened and extended	RW regions and municipalities of intervention feed the new SE&AM of intervention	<p><b>Phase Over:</b> With our support, the MEAH and the DREAH distribute the smartphones and support the communes using the new SE&amp;AM. The national PTFs and the DREAHs collaborate with us so that each national and regional PTF participates in feeding and improving the SE&amp;AM.</p> <p>The MEAHs ensure that the DREAHs implement data validation, control, and consultation frequencies for these data.</p>	# communes updating the SE&AM  <b>Situation:</b> DREAH, STEAH, water managers, and regional partners trained on DHIS2. We are in the coaching phase of their first updates.	MEAH, PCT, DREAH, PTF, regional team	
Output 1.2.2  Implementation of the learning agenda to increase and better regulate private sector engagement in WASH	Implementation of a Regional Learning Plan by the SRMO	<p><b>Phase over:</b> Each regional SRMO has developed and implemented the regional learning plan, including Learning at the RANO WASH project level</p>	# regions with the learning plan  <b>Situation:</b> Stakeholders share their lessons learned during the quarter systematically at SRMO meetings.		
	Ensure the functionality of STEFI at the DREAH level	<p><b>Phase out:</b> RANO WASH will support the DREAH and SRMO to operational the STEFI process.</p> <p><b>Phase over:</b> RANO WASH and DREAH will collaborate to document the process, challenges, and successes of STEFI to advocate MEAH to institutionalize the</p>	# STEFI operational  <b>Situation:</b> The six regions implement the STEFI process with complete cycles for Haute Matsiatra, Alaotra Mangoro, and Atsinanana. Challenges in data collection are still to be solved for Vakinakaratra and		

IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SO1					
		process or reopen the debate on its necessity	Vatovavy Fitovinany, and a start of the process for Amoron I Mania.		
<b>IRI.3 Strengthened Subnational Systems</b> Output 1.3.1 Decentralized resources available for sustained WASH service delivery Output 1.3.2 Commune management capacities strengthened for WASH service delivery					
SRMO implementing regional coordination	Transfer the role of Regional Co-lead to another PTF in the region	<b>Phase down:</b> The SRMO members will meet to identify the new Co-Lead, evaluate the experiences of the SRMO during these two years and readjust the mode of operation. The RW regional team will support the Co-Lead team for their induction and ensure that the required quality of regional coordination is well identified: the planning cycle (joint planning, financial evaluation, quarterly monitoring of indicators, regional sector review); the learning plan; the different joint projects;	# region whose Co-lead role is transferred to another technical partner  <b>Situation:</b> The dialogues at the level of the six regions have already started. ADRA is the one proposed as co-lead for Vatovavy Fitovinany. Amoron'i Mania and Alaotra Mangoro have designated partners but are still in the final selection phase. The Vakinakaratra and Atsinanana regions believe that DREAH can continue the process without a co-lead.	DREAH, SRMO, regional team, MEAH	

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SO1					
The regional departments and services support the municipalities according to their areas of expertise	Transfer the monitoring role of the STEAH and the Communes' capacity-building activities to the DREAH	<p><b>Phase over:</b> The DREAH team is being strengthened to maintain the dashboard for monitoring the skills of the STEAH and the capacity-building plans of the communes and STEAH in partnership with the various PTFs. These activities will be reported and discussed quarterly at the SRMO level.</p> <p><b>Phase over:</b> mobilize MEAHs to monitor the performance of DREAHs in supporting communes</p>	<p># DREAH maintaining the dashboards</p> <p><b>Situation:</b> 5 of the 6 DREAHs have adopted dashboards to track STEAH in their respective regions. The</p>	DREAH, SRMO, Regional Team	
	Strengthen the SRB, SRI, and District to support the efforts of communes to ensure the visibility of the WASH sector in budgets	<p><b>Phase over:</b> RANO WASH is strengthening its collaboration with the SRB to identify the right methodology to make the WASH component visible in the budget and administrative accounts, as well as to identify in the budgeting process the points</p>	<p># SRB, SRI activated</p> <p><b>Situation:</b> Collaborations between the 6 SRBs and SRIs to support communes for WASH budgets are activated</p>	Regional Team, SRB, SRI	
Communes progressively strengthening the WASH sector	Strengthen the Commune's capacity to implement the self-assessment on the governance of the WASH sector	<p><b>Phase down:</b> STEAH will mobilize the SLCs with the involvement of CSOs-WASH to implement the self-assessment on WASH sector governance. This self-assessment will result in an action plan. The "self-assessment" approach will be reviewed at the end of this process. The Commune and its stakeholders will determine the follow-up mechanism, the frequency of this self-assessment, and the next self-assessment date.</p>	<p># Communes with an annual self-assessment on governance</p> <p><b>Situation:</b> 213 Communes have finalized their self-assessment for this FY22</p>	STEAH, Commune, SLC, OSC-WASH, RANO WASH field agents	

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SO1					
	Document experiences and share lessons learned	<p><b>Phase out:</b> The project will document its experiences in implementing commune self-assessment tools for use by communes and quick wins. These experiences and lessons learned will be shared with the districts, DREAH and SRMO to engage them in valuing the approach and to make the link with the local governance index</p>	<p># regions with documentation of governance analysis</p> <p><b>Situation:</b> For the regions of Vatovavy-Fitovinany, Haute Matsiatra, and Amoron'i Mania, a handover between the regional RW team and the DREAH was implemented to transfer the situations of the intervention communes.</p> <p>Sharing communal project management was done during the capitalization seminar at the end of September.</p>	<p>Regional team, STEAH, Commune, SLC, Learning PCT</p>	
	Constitution of a single document for the planning of the communes (PDLII, PCDEAH, coverage plan, LCC, ...);	<p><b>Phase out:</b> The project will support the communes/STEAH to reconstitute the documents produced through SO2 and SO3 to be part of the PCDEAH</p>	<p>Updated #PCDEAH</p> <p><b>Situation:</b> We currently have 215 municipalities with a PCDEAH. Exchanges are underway with the</p>	<p>Regional team, DREAH, STEAH, RANO WASH field agents</p>	



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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SOI					
			DREAH on other tools that can be integrated into these plans		
	The 6 test communities continue to update their LCCs	<b>Phase over:</b> MEAH continues to monitor the six communes to provide a statistical basis for the national level	# Communities monitored by MEAH  <b>Situation:</b> MEAH is still in the process of improving the tools for the six communes	PCT, MEAH, DREAH, Regional Team	
	Documenting equipment allocations to communes, DREAH and MEAH	<b>Phase out:</b> Finalize the administrative procedures for the official endowment of materials (Computers, smartphones)	# convention established  <b>Situation:</b> Disposal plan being developed	PCT, MEAH, DREAH, Commune, regional team, USAID	

IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SOI					
<b>IRI.4 Increased community control over WASH services</b>					
Output 1.4.1 Commune and communities with an active civil society, aware of and organized to claim their right to water and sanitation					
Output 1.4.2 Commune with functional WASH accountability mechanisms					
CSO-WASH is functional and cost-effective	Strengthen the communal CSOWASH and the regional CSO-WASH capacity to implement their self-evaluation periodically	<b>Phase down:</b> The CSO-WASH office will mobilize its members to implement the self-assessment on the governance of the WASH sector. This self-assessment will result in an action plan. A review of the self-assessment approach will be conducted at the end of this process, where the CSO-WASH and its members will determine the follow-up mechanism, the frequency of this self-assessment, and the next self-assessment date.	# communes whose CSOWASH has implemented a self-assessment  <b>Situation:</b> 207 CSOWASHs have implemented their self-assessment for FY22	Regional CSOWASH, Regional Team  CSO-WASH communal, RANO WASH field agents/supervisors	

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SO1					
	Engage national and regional CSO-WASH in a proximity support and relay approach for the advocacy activities of communal CSOWASH	<b>Phase over:</b> The project will work with national and regional CSO-WASH members to develop a tool to highlight the performance of communal and regional CSO-WASH based on the self-assessment results and the progress phasing dashboards of communal and regional CSOs.	# regions whose regional CSO-WASH are expanding to the communal level # Regional CSO-WASH, whose plan is monitored by the National CSO-WASH	CSO-WASH National, PCT  Regional CSOWASH, Regional Team  CSO-WASH communal and RANO WASH field agents	
	Document experiences and share lessons learned	<b>Phase out:</b> The project will document its experiences with CSO-WASH tools and the quick wins it has achieved. These experiences and lessons learned will be shared with districts, DREAH, and SRMOs to engage them in valuing these "ways" of the community in future interventions	# sharing report with SRMO on CSO-WASH mechanisms  <b>Situation:</b> For the regions of Vatovavy-Fitovinany, Haute Matsiatra, and Amoron'i Mania, a handover between the regional RW team and the DREAH was implemented	SRMO, Regional Team  Regional CSO-WASH	

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SOI					
			Sharing lessons learned on CSO-WASH and accountability in late September		
Functional and cost-effective SLC	Strengthen the culture of quick results of SLCs for the WASH sector.	<p><b>Phase down:</b></p> <p>Review the experience of each SLC at the commune level, especially for the WASH sector. See for WASH the possibility of having quick wins at least every three months (possibly do the same for the other sectors). Re-launch the consultations of the SLCs as well as the operating procedures.</p>	# communes with revised consultation plans with WASH discussion	DREAH, SLC, RD, RANO WASH field agents	
	Engage districts, prefects, and DREAH in monitoring SLC performance and	<p><b>Phase over:</b> The project will work with the</p> <p>District, Prefect, and DREAH to ensure that the SLC has plans to put in place a tool to enhance their performance</p>	# District, Prefect, and DREAH who ensure that the SLC has plans	PCT, Regional CSOWASH, Regional, DREAH, District	

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SO1					
	Document experiences and share lessons learned	<b>Phase out:</b> The project will document its experiences with SLC and the quick wins it has achieved. These experiences and lessons learned will be shared with districts, DREAH, and SRMOs to engage them in valuing these "ways" of the community in future interventions	# sharing report with SRMO on SLC  <b>Situation:</b> For the regions of Vatovavy-Fitovinany, Haute Matsiatra, and Amoron'i Mania, a handover between the regional RW team and the DREAH was implemented to transfer the situations of the intervention communes.  Sharing lessons learned on CSO-WASH and accountability mechanism during the RANO WASH capitalization seminar in late September	SRMO, Regional Team  Regional CSO-WASH	
Functional and cost-effective accountability mechanisms	Establish the profile of the accountability mechanisms at the commune level and its short- and medium-term action plan	<b>Down/over phase:</b> STEAHs and CSO-WASH will assess the status of the accountability mechanisms with RANO WASH field agents' support. They will highlight the strengths and challenges to be corrected so that the accountability mechanisms remain functional and produce concrete actions periodically (3 months) to improve the quality of WASH services. A discussion will be held at the SLC level to design a short and medium-	# communities with accountability mechanisms action plan  <b>Situation:</b> 202 municipalities have a functional accountability mechanism at the end of FY22	Municipal, STEAH, SLC, CSO-WASH  Municipal, RANO WASH field agents	

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SO1					
		term action plan and schedule periodic reviews of this plan.			
	Engage districts and DREAHs to demand transparency on community feedback	<b>Phase over:</b> The project will work in collaboration with the members of the SRMO, the DREAH, and the districts so that the communes of the region, with the support of the districts, will set up the accountability mechanisms with the monitoring of the authority's responsiveness according to quarterly cycles. The monitoring dashboard of the communes on accountability mechanisms will be the individual monitoring tool to be transferred to the DREAH and districts (status, strengths and quick wins achieved, correction, action plan).	# districts involved  <b>Situation:</b> Discussions with the DREAH, MID, and the districts have begun	DREAH, District, SRMO; Regional Team, area supervisors	
	Document experiences and share lessons learned	<b>Phase out:</b> The project will document its experiences with the practice of accountability mechanisms. A series of success stories will be written to document the success of accountability mechanisms. These experiences and lessons learned will be shared with the districts, DREAH, and SRMO to engage them in discussions on measures to perpetuate the adoption of accountability mechanisms for WASH service quality.	# sharing report with SRMO on accountability mechanisms  <b>Situation:</b> For the regions of Vatovavy-Fitovinany, Haute Matsiatra, and Amoron'i Mania, a handover between the regional RW	SRMO, Regional Team	

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
SOI					
			<p>team and the DREAH was implemented</p> <p>Sharing lessons learned on CSO-WASH and accountability mechanism in late September</p>		

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
<b>SO2</b>					
<b>IR2.1 Strategic Development and Innovation for Private-Sector Engagement in WASH Service Provision</b>	I - Implementation and dissemination of the developed models (PPP approach)	<b>Phase over:</b> - Always involve sector actors in organizing implementation sessions of the developed models to share them with the sector. And we will make the RANO WASH toolkit available to the sector.	<ul style="list-style-type: none"> <li>- DREAH, CSO-WASH, MAYORS and their advisors, District and region Involved in organizing meetings and practicing approaches developed by RANO WASH</li> <li>- Toolbox with links available for all interested parties, (<a href="http://www.RANO WASH.org">www.RANO WASH.org</a>)</li> <li>-<i>Availability of Guide Tools for Local masons and seamstresses who do not have access to the website,</i></li> <li>- WSPs can carry out the approaches developed by the project that concerns them (e.g., reinvestment for extension, integration of community sites into private management, etc.)</li> <li>- Existence of PPP contract and addendum to the management</li> </ul>	<ul style="list-style-type: none"> <li>- The WSPs</li> <li>- The Municipalities (Mayors and Councilors)</li> <li>- MEAH</li> <li>- MEAH Communication Unit and EDBM</li> </ul> <p>Nb : RANO WASH communication in support only</p>	National  And  Regional



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<b>SO2</b>					
			delegation contract signed by the parties, <ul style="list-style-type: none"> <li>- List of potential sites available on the RANO WASH website and visible in the SE&amp;AM</li> </ul>		
	2 - Pilot the model in FSM	<b>Phase Over :</b> - Launch and follow up a call for study and accompaniment of a manager investor in FSM <ul style="list-style-type: none"> <li>- Different training packages will be developed and given to the selected IAG</li> </ul>	<ul style="list-style-type: none"> <li>- At least one FSM model in operation and managed by an identified private sector</li> <li>- Research report available and with the IAG</li> <li>- FSM Management Delegation Agreement is available</li> <li>- FSM tools available in the RANO WASH toolbox</li> </ul>	<ul style="list-style-type: none"> <li>- FSM Design Office</li> <li>- FSM service providers</li> <li>- DREAH</li> <li>- Municipality</li> <li>- EDBM</li> <li>- Communication from MEAH</li> </ul>	National
	3 - sanitation market deployment with IDE	<b>Phase Over:</b> - A research is conducted with iDE to find standard models of latrines adapted to the coastal and plateau area of the six regions of intervention of RANO WASH. This research is followed by dissemination of the results to local actors (PL, ML, WSP)	<ul style="list-style-type: none"> <li>- Economic models of the types of latrines will be developed and available as a result of this study</li> <li>- Small and medium operators will develop</li> </ul>	<ul style="list-style-type: none"> <li>- WSP,</li> <li>- Local Masons</li> <li>- RANO WASH Communication Team and DCP MEAH</li> </ul>	National  And

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<b>SO2</b>					
			<p>the identified business models,</p> <ul style="list-style-type: none"> <li>- Study report and useful tools for toilet market development will be available at the end of this study and available on the RANO WASH website</li> </ul>	<ul style="list-style-type: none"> <li>- EDBM</li> </ul>	<p>Regional</p>
	<p>4 - Deployment of business models at the regional level via fairs and direct application as well as PPP+.</p>	<p><b>Phase Over:</b> - Under the incentive/impulse of either the WSP or the Commune and approved by the DREAH, the extension for the densification of the network via the budget of the fee on the extension or via the own funds of the WSP and the Commune or other funds, the PPP+ and the spontaneous application towards other Commune will be conducted with facility</p>	<ul style="list-style-type: none"> <li>- DREAH, CSO-WASH, Mayors and their advisors, District and region Involved in organizing meetings and practicing approaches developed by RANO WASH</li> <li>- Toolbox powered with a link available for all interested parties (<a href="http://www.RANO WASH.org">www.RANO WASH.org</a>)</li> <li>- WSPs can carry out the approaches developed by the project that concerns them (e.g. reinvestment for extension, integration</li> </ul>	<ul style="list-style-type: none"> <li>- The WSPs</li> <li>- The Municipalities (Mayors and Councilors)</li> <li>- MEAH</li> <li>- MEAH Communication Unit and EDBM</li> </ul> <p>Nb : RANO WASH communication in support only</p>	<p>Regional</p>

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<b>SO2</b>					
			<p>of community sites into private management, etc.)</p> <ul style="list-style-type: none"> <li>- Existence of PPP contract and addendum to the management delegation contract signed by the parties,</li> <li>- List of potential sites available on the RANO WASH website and visible in the SE&amp;AM</li> </ul>		
	<p>5 - Post-fair accompaniment by the DREAH - MEAH teams</p>	<p><b>Phase Over:</b> - To allow the ministry team to accompany the WSPs resulting from the spontaneous application and fairs, we will make available to the DREAH-MEAH for experimentation and improvement of the guide of accompaniment of the WSPs until the Contractualization. The costs of travel, accommodation and food for the accompaniment will be borne by the WSPs and will be included in the calculation of amortization (study part)</p> <ul style="list-style-type: none"> <li>- The technical, financial-economic and environmental tools developed by the DREAH with the help of the RANO WASH team for the WSPs are available at the DREAH and on the RANO WASH website,</li> </ul>	<ul style="list-style-type: none"> <li>- Guide available by region at the DREAH level,</li> <li>- Model and letter of expression of interest or commitment from the WSPs available from the communes concerned,</li> <li>- WSP initiates the DREAH team's support to accompaniment,</li> </ul>	<ul style="list-style-type: none"> <li>- MEAH</li> <li>- DREAH</li> <li>- Commune and its advisors,</li> <li>- District for legalization of steps</li> <li>- WSP</li> <li>- Technical partner of RANO WASH (Sandandrano and BushProof)</li> </ul>	<p>Regional</p>

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<b>SO2</b>					
		<p>- Harmonization with MEAH for the facilitation of the elaboration of the management delegation contract within reach of the WSPs (Six copies of signed contracts to be used with three annexes complete copy for MEAH, Commune and WSP)</p>	<p>- Technical, financial and environmental tools available</p> <p>- At least one WSP will sign a management delegation contract before the end of the project,</p> <p>- Number of copies and annexes of contract officially validated by the MEAH (PV tracing the decision)</p>		
	<p>6- Clear line of communication for the WASH sector</p>	<p><b>Phase Over:</b> - The steps and autonomous steps to be followed by the WSP, Commune, DREAH for the PPP and PPP+ are made available to the sector,</p> <p>- A line of communication for the validation of construction contract and management delegation concerted with the MEAH will be implemented under the aegis of MEAH, influenced by RANO WASH</p>	<p>- Communication line for private sector engagement available in the RANO WASH toolkit</p> <p>- Models of tools and approaches developed by</p>	<p>- DCP MEAH</p> <p>- DEA MEAH</p> <p>- SG MEAH</p> <p>- DG MEAH</p> <p>- The DREAH</p>	<p>National</p>

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<b>SO2</b>					
		<p>- A harmonization meeting will be held for the sector and led by the MEAH</p>	<p>RANO WASH, used by other stakeholders</p> <p>- Harmonization meetings conducted with sector members under the direction of the MEAH</p>	<p>NB : under the support of RANO WASH</p>	
	<p>7- Transfer of Management and sharing of the RANO WASH toolkit to EDBM - MEAH</p>	<p><b>Phase over:</b> - To solve the concern of PPP contract management, we will gradually transfer the role of CMT to the three inseparable bodies DREAH-WSP-COMMUNE and define together with the DAE the criterion of evaluation of non-performing and performing WSPs for the objective good of EAH service,</p> <p>- With the partnership agreement between RANO WASH and EDBM, the toolbox of RANO WASH will be made available to the private sector, and the sector itself will be considered a suitable market for the island and members of the state that will succeed.</p> <p>- For the memorization and publication of the water code and useful law in the sector, we will develop audio recordings of the water code and other version Podcasts animated with the team of MEAH and will be published in the toolbox of</p>	<p>- Toolbox available at the EDBM and published on the Etolia platform</p> <p>- RANO WASH Toolkit available on the MEAH website</p> <p>- CMT role available in the form of an allocation plan with referencing</p> <p>- Water Code audio version available</p>	<p>- DCP MEAH, - DREAH, - EDBM - WSP, - DEA MEAH</p>	<p>National and Regional</p>

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<b>SO2</b>					
		RANO WASH, MEAH, and EDBM (Tools in three languages, English, French and Malagasy)			
<b>IR 2.2 Improved Design, Construction, and Management of WASH Infrastructure</b>	1- Continue to organize a national workshop for ministry-level advocacy to clarify the processes for certification of water quality testing laboratories by inviting MEAH and MSP (Ministry of Public Health) and relevant potential laboratories	<b>Phase Over:</b> - The counting of beneficiaries from the construction of RANO WASH and its partners are still waiting for the positive result of the test of the potability of water from a laboratory approved by the state before counting beneficiaries. However, during the years of intervention of the project, we only have the IPM as a reference laboratory for water quality. So, to facilitate this advocacy for the common cause, we will organize a series of comparative water quality tests, well-defined elements, with laboratories capable of doing so and potentially accessible here in Tana and at the level of the regions. (IPM, JIRAMA, LMA, NY RANONTSIKA, NY TANINTSIKA, ...)	<ul style="list-style-type: none"> <li>- Workshop organized in April 22</li> <li>- Clear accreditation application process and file available to stakeholders,</li> <li>- Duration of the validation of a specific application for accreditation</li> </ul>	<ul style="list-style-type: none"> <li>- MEAH</li> <li>- MSP</li> <li>- Water Quality Analysis Office</li> <li>- BUSHPROOF</li> <li>- SANDANDRANO</li> </ul>	National
	2-Follow-up of the construction work by the project manager after August 22 or October 22 or after RANO WASH	<b>Phase Over:</b> - After the departure of the project manager's teams beyond August 22 or October 22, the work initiated during the fairs and those contracted with USAID is still continuing. While the monitoring, technical supervision will always remain necessary. The roles of the control technicians are necessarily and entirely to pass to the Technician Manager of the technical partners. In the meantime, they will train the technical teams of the Ministry and	<ul style="list-style-type: none"> <li>- Availability of a maintenance guide for each type of structure,</li> <li>- STEAH is involved and already integrated in the payment system of the Commune,</li> </ul>	<ul style="list-style-type: none"> <li>- Project manager (SANDANDRANO and BushProof),</li> <li>- Municipality</li> </ul>	- Regional

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<b>SO2</b>					
		<p>STEAH on the Tas to have the necessary autonomy for the control and monitoring of the works beyond the project.</p> <p>The DREAH's technical supervisors' support system will be integrated into the WSP's or Commune's business plan and the Commune's forecast as stated in SDG6 to be sustainable.</p>	<p>- Clear system of support (from the project manager's team or the DREAH),</p>	<p>- MEAH</p> <p>- DREAH</p> <p>- STEAH</p>	
<b>IR2.3 Strengthened Technical and Business Skills and Competencies</b>	<p>I- Putting the WSPs in contact with groups of investors, banks, suppliers, TFPs, and donors, to build a sustainable win-win partnership for the benefit of clients</p>	<p><b>Phase Over:</b> - In the provision of drinking water supply and sanitation services, the WSP needs development funds to honor its commitment described in the business plan to develop its business. They have the turnover generated per year, the free market opportunities around them, the population's ability to pay, the durability of the management delegation contract with the Municipality, the need for drinking water and sanitation that increases with the growing population, market stability even if the pandemic arrives, the infrastructures installed are already resilient to climate change, management delegation contract allowing extensions and renewals, .... with all its strengths that benefit the WSP in the eyes of investors and banks as well as suppliers, we are left with the creation of a win-win partnership between them and independently of the project.</p> <p>Objectives:</p>	<p>- WSPs have and are already in contact with the group of investors, financial institutions, insurance, and suppliers,</p> <p>- Extensions financed by the network create,</p> <p>- List of donors and financial partners in WASH available</p> <p>- Business plan model for relevant WASH markets available (Water, Sanitation, and Hygiene market)</p>	<p>- THE WSPS</p> <p>- EDBM</p> <p>- SANDANDRANO as President of the OPDEM</p> <p>- MEAH</p> <p>- Traditional donors in the sector</p> <p>- AMIC Group members:</p> <ul style="list-style-type: none"> <li>- ADENIA PARTNERS</li> <li>- ASSIST DEVELOPPEMENT</li> <li>- FINANCIAL INVESTMENT ARO (FIARO),</li> </ul>	National

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IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
<b>SO2</b>					
		<ol style="list-style-type: none"> <li>1. Promote Private Equity to WSPs and investors</li> <li>2. Develop best practices and establish rules of ethics and corporate governance in the WASH sector while promoting self-regulation of the profession</li> <li>3. To be a force of proposal on the regulatory texts governing the economic and administrative environment of the WASH profession</li> <li>4. Promote the growth, development, and transfer of businesses</li> </ol> <p>Create a sustainable link between WASH providers and ICMs to explore short and long-cycle facilitation models jointly</p>	<ul style="list-style-type: none"> <li>- Delegation of management contract accepted by financial institutions available</li> <li>- Growth of the WSP through the increase of its turnover,</li> <li>- Financial and payment products, as well as insurance products, are available</li> <li>- DREAH will take care of the extension to other areas via other sources,</li> <li>- Type and range of financial products available and accessible to the private sector</li> </ul>	<ul style="list-style-type: none"> <li>- FONS DE PORTAGE ET PRIVATISATION (FPP),</li> <li>- INVESTORS &amp; PARTNERS (I&amp;P),</li> <li>- KAPITAL PLUS</li> <li>- MADAGASCAR DEVELOPPEMENT PARTNERS (MDP),</li> <li>- MIARAKAP,</li> <li>- SOLIDIS CAPITAL INVESTISSEMENT,</li> <li>- SOLIDIS GARANTIE,</li> <li>- SOCIETE NATIONALE DE PARTICIPATIONS (SONAPAR)</li> </ul>	
<b>IR2.3 Strengthened Technical and</b>	2- Appeal to the Diaspora for financing the	<b>Phase Over:-</b> Madagascar is still only 46% covered in drinking water, while the communes already have the process to have access to this	- Extension of the water network managed by a	- WSP	Regional



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<b>SO2</b>					
<b>Business Skills and Competencies</b>	sector, extension of drinking water, sanitation, and hygiene services	service but lack the means to finance it. The investment in full via WSP will increase the cost of water or make the water business unstable, which is the assurance of its sustainability. The recourse to financing Malagasy diasporas is one of the means of securing the setting of the population in the center of the drinking water PPP business. The availability of additional financing tools accompanied by the contribution of the private sectors not only secures the investment but also alleviates the public expenditure	private sector and financed by the diasporas  - Increasing the funding envelope via Diasporas  - Multiplication of the number of calls for financing of the Diaspora made by the MEAH - DREAH with the Commune,	- Commune and its advisors,  - MEAH  - DREAH  - District  - Malagasy DIASPORAs	National
<b>IR2.3 Strengthened Technical and Business Skills and Competencies</b>	3- Create a sustainable link between VSLA groups and microfinance institutions through a networking session	<b>Phase Over:</b> - Continue with the same process as with AMIC groups, but the linkage here is only between VSLA groups and microfinance institutions (MFIs). This is done, so that village savings and loan groups have much more funds for investment in WASH or at least for their members.	- Agreement with VSLA and MFI group members  - Increase in funds or credit invested in WASH  - List of MFIs with WASH financial products	- MFIs,  - VSLAs,  - VSLA Network,	National and Regional
<b>IR2.3 Strengthened Technical and Business Skills and Competencies</b>	4 - Empowering the project Driving the water kiosk models:	<b>Phase Out:</b> Conduct an incubation of a startup project to design and scale up a type of smart tap to increase the number of drinking water customers at a low cost. Conduct a pilot study of	- 3 Smart tap piloted in Anosibe Ifody,	- MANAMPY CORP  - MEAH	National (PCT and Program Director)

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<b>SO2</b>					
	Smart tap - token kiosk	<p>this type of smart tap in Anosibe Ifody, where a WSP meets the criteria for testing the device to know its weak points for rectification and improvement. Disseminate the model for the sites of RANO WASH by ordering at least 80 devices to be put in place at different sites already managed by the WSPs. Strengthen by following the capacity of this young entrepreneur in entrepreneurship via the link with the incubator of Toamasina or NEXTA via its account near the boost of RANO WASH. The Commune and MANAMPY CORP will be accompanied for elaborating its subcontracting contract with the WSP already in the zone. (RANO AN'ALA B, LOVA VELU, ACOGEMA, GCI OF AMPARAFARAVOLA, ...)</p> <p>- To reduce the device's production cost and keep the increase of drinking water users, urge MANAMPY CORP to produce a wall-mounted model (of a store or grocery store ready to manage) of smart water tap.</p>	<ul style="list-style-type: none"> <li>- Test report at Anosibe Ifody available with anomaly correction system identified before duplication,</li> <li>- Partnership agreement with MANAMPY CORP available and signed,</li> <li>- Development of a rectified model for dissemination will be visible on-site,</li> <li>- The increase in the number of beneficiaries is felt and is close to our expectations,</li> <li>- A model of Subcontract of management delegation (Subcontracting) exists between the WSP and MANAMPY CORP</li> </ul>	<ul style="list-style-type: none"> <li>- DREAH</li> <li>- Commune (Mayors and Councilors)</li> <li>- The Business Incubator</li> <li>- Sandandrano</li> </ul>	Regional

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<b>SO2</b>					
			<ul style="list-style-type: none"> <li>- Existence of a partnership agreement with the Toamasina business incubator or NEXTA</li> </ul>		
<b>IR2.3 Strengthened Technical and Business Skills and Competencies</b>	<p>6- AOPDEM</p> <ul style="list-style-type: none"> <li>1- Linkage with financial institutions</li> <li>2- Linkage with various state activities for the promotion of the private sector</li> <li>3- Develop an institutional communication campaign to promote the association</li> <li>4- Linkage with suppliers</li> </ul>	<p><b>Phase Over:</b> Linkage is already implemented through different activities carried out by the RANO WASH project, such as linking with banks, suppliers, MFIs, and insurances, .... New members of AOPDEM have come from the project's incentive during different training or capacity building.</p> <p>The AOPDEM will also be able to carry out a meeting session through their collective effort with a calculation of expenses borne by the members or other sources of funds found by the association's leaders.</p>	<ul style="list-style-type: none"> <li>- Contact financial institutions available at AOPDEM,</li> <li>- The list and price of products from suppliers available at the association,</li> <li>- The members of the association contract bank loans or investment loans.</li> <li>- Existence of information meetings on face-to-face or online opportunities</li> </ul>	<ul style="list-style-type: none"> <li>- AOPDEM</li> <li>- Member of AMIC</li> <li>- MEAH</li> <li>- EDBM</li> </ul>	National (PCT and Program Director)

IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
<b>SO3</b>					
<p><b>IR3.1 Improving WASH behavior change solutions through applied research</b></p> <p><b>IR3.3 Shared evidence on WASH BC innovations to influence policy and practice</b></p>	<p>1 - Learning and dissemination of results around the key approaches used in the project</p>	<p><b>Phase out:</b> Conducting learning, documentation, and dissemination activities on key approaches used in the project allows WASH sector actors to share the various lessons learned from the project for future interventions. Documents produced as part of the learning process will be made available to MEAH/DREAH and other learning networks such as RAN'EAU</p> <p>The learning activities cover several topics: Commune ODF, sustainability of WASH services at the institutional level, community engagement in the framework of the PPP Drinking Water, BC approaches implemented by RANO WASH, PHE, WASH Nutrition (non-exhaustive list)</p>	<p>Number of available learning materials/products disseminated to MEAH, other relevant ministries, and other learning networks</p> <p>Number of sharing sessions organized to share the project's achievements and lessons learned</p> <p>Number of tools and guides the project made available to stakeholders for future use (including behavior change tools such as posters, audio, and video spots...)</p>	<p>- Regional team - PCT - Municipalities - DREAH, SRMO MEAH</p> <p>Nb: Communication RANO WASH and Care Water Team in support</p>	<p>Regional and national</p>
	<p>2 - sanitation market deployment with IDE</p>	<p><b>Phase over:</b> Research is being conducted with iDE to find market-based sanitation models adapted to the coastal and plateau areas of the six RANO WASH intervention regions. The results of this research and design phase will be relayed to UNICEF so that they can continue to support implementation with local private operators.</p>	<p>- Business models and toilet types will be available as a result of this study - Small and medium operators will develop the identified business models,</p>	<p>- Regional team - PCT - WSP - Local masons/sewerage companies - MEAH: Sanitation Department</p>	<p>Regional National</p>

IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
<b>SO3</b>					
			<ul style="list-style-type: none"> <li>- Marketing and product launch plans are available</li> <li>- Study report and useful tools for toilet market development will be available at the end of this study and available on the RANO WASH website</li> </ul>	<ul style="list-style-type: none"> <li>- RANO WASH Communication Team</li> <li>- EDBM</li> <li>- UNICEF</li> </ul>	
<b>IR3.2 Improved implementation of BC WASH strategies at all levels</b>	1 - Supporting SRMOs in coordinating behavior change activities and implementing regional and national initiatives, and promoting cross-sectoral interventions	<b>Phase out:</b> For the final months of the project, the focus will be on strengthening and supporting SRMOs in coordinating behavior change activities and establishing mechanisms for sharing knowledge and practices in behavior change. The SRMOs will also be encouraged to continue the efforts to implement national (Madagasikara Madio) and regional (Concours Commune Madio etc.) initiatives.	Number of SRMOs under the DREAH lead that can ensure coordination of behavior change interventions and periodic sharing of knowledge and practices, as well as promotion of cross-sectoral interventions	Regional team PCT SRMO MEAH Other actors	Regional National
	2. Accompanying the Communes in the implementation of sanitation activities at the scale	<b>Phase out:</b> Strengthen the Communes/STEAH to implement their strategies to achieve and maintain ODF status Strengthen the DREAH and SRMO to support the efforts of the Communes and implement strategies to achieve results at scale (ODF District, ODF Region) in the	Number of Communities ODF  Number of WASH providers able to conduct sanitation activities at scale and able to lead a	Regional Team, PCT DREAH/SRMO Municipalities /STEAH	Municipal, regional

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<b>SO3</b>					
		remaining 93 Communes until September 2022	community / Commune to ODF status		
	3 - Accompanying the Communes in the implementation of hygiene promotion activities (community and household level)	<p><b>Phase over:</b> Sharing RANO WASH interventions, as well as the core principles used in behavior change and hygiene promotion strategies at different levels to encourage change in support activities with local actors</p> <p>Strengthen the Communes/STEAH in developing adapted strategies based on the principles of behavior change (GUS, CLTS, collaboration with ML and CL, collaboration with VSLA...)</p> <p>Encourage the availability of a specific budget for sanitation and hygiene promotion at the Communal level in the remaining 93 Communes until September 2022</p>	<p>Communities with clear and simple behavior change and hygiene promotion strategies and budgets</p> <p>Complete GUS approach user guide available for download</p> <p>Number of WASH providers able to develop simple strategies to promote good hygiene practices within their Commune, including collaboration with local actors such as local promoters, masons and seamstresses.</p>	Municipalities /STEAH Regional team DREAHSRMO	
	4 - Supporting institutions and municipalities in the sustainability of WASH	<p><b>Phase out:</b> Ensure the construction of sanitary blocks and the supply of drinking water to the institutions still planned</p> <p><b>Phase over:</b> develop a simplified guide to enable different actors at the institutional</p>	<p>Number of institutions with access to WASH services</p> <p>Simplified guides to assist in the</p>	Regional team PCT, national focus consultant Institutions DREAH, DRSP, DREN	Regional and national

IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
<b>SO3</b>					
	services at the institutional level and developing a specific guide	<p>and communal levels to manage WASH services at the institutional level in a sustainable manner (management, operations and maintenance), in collaboration with other actors (MEAH, MSP, MEN, MID)</p> <p><b>Phase over:</b> Support Communes and institutions to mobilize resources to ensure availability of budget for WASH services at the institutional level, including inclusion in the communal budget</p> <p><b>Phase over:</b> Support national efforts to improve institutional interventions and share project interventions and lessons learned with other stakeholders (MEAH, MSP, MEN, other sector actors)</p>	<p>management and maintenance of WASH services at the institutional level</p> <p>Number of institutions with management, operations and maintenance plans</p> <p>Number of municipalities taking into account the institutions in their budget</p> <p>Number of WASH providers able to take into account the availability of WASH services at the institutional level in their monitoring and support activities</p> <p>DTS involved in monitoring WASH activities at the institutional level</p>	MEAH, MSP, MEN, MID	
	5 - Recognize the existing and efficient relay	<b>Phase over:</b> Evaluate the performance of the Relay Agents in the conduct of their activities and provide official recognition of	Number of R.A.s evaluated and	Regional team PCT RPGEM	National

IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
<b>SO3</b>					
	agents in the RPGEM and local networks	<p>their professions in collaboration with the RPGEM (professional card, certificate...)</p> <p><b>Phase over:</b> Strengthen the RPGEM to implement a process of professionalization of the Relay Agents to ensure the continuity of support and supervision to these RAs</p> <p><b>Phase out:</b> Develop and equip Relay Agents' with financial education picture boxes</p>	recognized by RPGEM and local networks		
	6 - Ensure the availability of financial products that allow savings groups to secure their funds and increase their loans	<b>Phase over:</b> Develop partnerships with financial institutions to encourage the proposal of security solutions for savings groups and ensure that these solutions can be implemented independently of the project. Partners here: MVola, SMMEC, others to be identified	<p>Number of institutions offering security solutions and financial services adapted to groups</p> <p>Number of groups using financial services</p>	Regional team PCT RPGEM	National
	7 - Finalize the VSLA Drinking Water Contest and celebrate the winners	<b>Phase out:</b> Evaluate the results of the contest participants and celebrate the winners	Award ceremony	Regional team PCT RANO WASH Communication Team	



IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
<b>Gender &amp; Social Inclusion</b>					
<p><b>I-Gender mainstreaming achievements through WASH activities are maintained</b></p> <p>The desired situations about the strategy of gender mainstreaming and social inclusion of RANO WASH.</p> <p><i>*The voices of women, youth, and vulnerable people are represented and considered in WASH-related policy forums.</i></p> <p><i>*WASH facilities and services are accessible to men, women, youth, children, and people with disabilities.</i></p> <p><i>*Men/boys and women/girls adopt healthy behaviors through equitable</i></p>	<p>-Facilitate national events on gender issues</p>	<p><b>Phase out:</b> Facilitate gender-related events: women leaders, women's advocacy related to WASH, men committed to women's empowerment</p> <p>- Supporting Youth Entrepreneurship by integrating them in the "WASH Salon" – <b>October 22</b></p> <p>-Refresher on capacity building on gender transformative approaches - March and April 22</p>	<p>Number of :</p> <ul style="list-style-type: none"> <li>- women leaders</li> <li>- men involved</li> <li>- entrepreneurs Men and women who are expected to have improved their income through WASH activities</li> </ul>	<ul style="list-style-type: none"> <li>- Consortia members</li> <li>- Regional teams</li> <li>- The subgrantees</li> <li>- Network of local masons</li> <li>- Seamstress Network</li> <li>- WSP</li> </ul> <p>Gender focal points in partner ministries and consortium members</p>	<p>National Regional Communal</p>
	<p>-Ensure the production, sharing, and use of communication materials on gender mainstreaming and social inclusion through RANO WASH</p>	<p><b>Phase over:</b> -Refresher on key gender integration and social inclusion tips and explanation of reminder cards - <b>March 22</b></p> <p>-Facilitation of integration/rapprochement of women leaders, committed men, and private operators at the level of regional and national platforms - <b>March to September 22</b></p>	<p>Number of tools used by the project made available to stakeholders for future use</p> <p>Number of institutions that participated in the sharing sessions</p> <p>Number of gender focal points reinforced by RANO WASH</p>	<ul style="list-style-type: none"> <li>-MEAH, MPPSPF, MEN, MSP</li> <li>- Gender Group regional departments at the national level</li> <li>-WASH Working Group</li> <li>- RANO WASH communication team</li> <li>- ODDIT, SAF FJKM, CARITAS Antsirabe, NY TANINTSIKA, AIM, MIARINTSOA</li> <li>- Regional Focal Point Group</li> </ul>	<p>National Regional Communal</p>

IR/ Output	Key Activities	Description	Completion Indicators	Actors involved	Level National / Regional
<b>Gender &amp; Social Inclusion</b>					
<i>distribution of WASH roles</i>					
<b>2- Gender and social inclusion practices carried out by the project are capitalized on and shared for scaling up</b>	Conducting gender audit learning	<b>Phase out:</b> - Facilitating the Gender Marker End Line - July 22 - Conduct the three learning themes set on Gender: Inclusive Accountability Mechanism, Gender, and the Private Sector, Gender Approach to RANO WASH - February to August 22	Number of analysis and case study reports developed	- Regional teams - The subgrantees - Partner Ministries - Community Partners	National Regional
	Share and disseminate RANO WASH experiences in gender and social inclusion	<b>Phase over:</b> - Ensure the availability of tools and capitalizations accessible to partners (in networks, websites, ...) From March 22	Number of people and institutions who consulted or were involved in the sharing and dissemination sessions or platforms	CARE Water Team CARE MDG CRS WaterAid Bush Proof SANDANDRANO RANO WASH Communication Team Communication Department MEAH Ran'Eau Gender and WASH Working Group	National Regional

## **TRANSITION PLAN FOR THE RANO WASH CONSORTIUM STAFF**

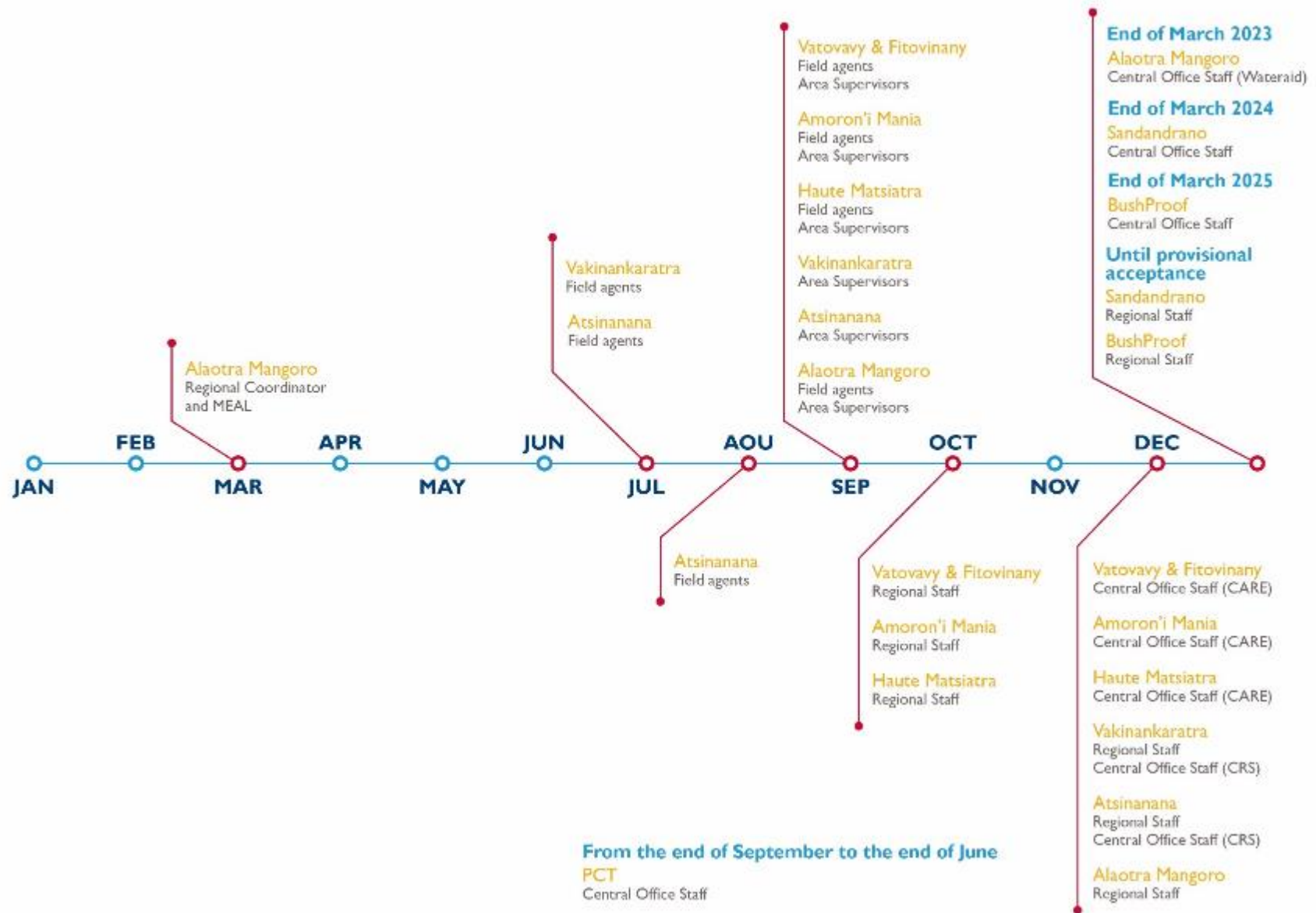
RANO WASH's intervention strategies have already been designed to prepare for its withdrawal at all communal, regional and national levels. The partnership with communal leaders and their local partners, MEAH and DREAHs, other partner ministries in the sector, as well as organizations and projects working in the WASH sector facilitates the transfer of lessons learned and the continuity of activities to strengthen the sector.

In addition, the project has identified partners in the sector that will continue after the project leaves, such as UNICEF, Helvetas, Eaurizon, Ran'Eau, CRS, CARE, and WaterAid, to transfer the lessons learned and continue the necessary support at the national, regional, and communal levels.

RANO WASH is not limited to the transition at the national level but has organized and will organize webinars to share lessons learned, participate in international workshops to disseminate and discuss project experiences. The project continues to develop a partnership with global platforms facilitating the availability of all resources developed by the project, such as Global waters, Agenda for Change, PS' Eau.

The project's interventions in the field are progressively decreasing and so are the project's staff. The table below shows the gradual withdrawal of RANO WASH at the level of the regions and communes of intervention.

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## **ANNEX 17. MEAL TRANSITION PLAN**

### **CONTEXT**

In its final year of implementation, given the gradual withdrawal of teams from the field, the project is in a transitional phase, both in terms of the implementation of activities and the system for collecting data.

In view of the gradual exit of the project team from the implementation and data collection, and also in view of the continuous information needs of the RANO WASH project, the Water Services Providers (WSPs) and the DREAHs, and especially to support the operationalization of the national data collection system, the SE&AM, it is necessary to adjust the project MEAL system to ensure continuous data collection after project close out.

This document reflects the exit strategy of Monitoring, Evaluation, Accountability and Learning.

Faced with this situation and the ongoing need for data on field achievements, the GIC, STEAH and DREAH have been trained on DHIS2 to support the operationalization of the MEAH national system, SE&AM. Indeed, it is necessary to adjust the project's MEAL system to ensure the feedback of information.

This document reflects the exit strategy of Monitoring Evaluation Accountability and Learning.

### **OBJECTIVE**

To ensure :

- Continuous monitoring of the evolution of the indicators of the RANO WASH project, mentioned in the table below, in the 250 Communes of the 6 target regions,
- Supporting the private sector, collaborating with the RANO WASH project, through the collection and systematic monitoring of beneficiaries of water supply services,
- Monitoring of the WASH sector through the operationalization of the SE&AM platform, in the regions of intervention of the RANO WASH project,

This document is established and will serve as a guide to consortium members on actions to consider, to ensure the uptake and quality of data during this transition phase.

### **MEAL TRANSITION STRATEGY**

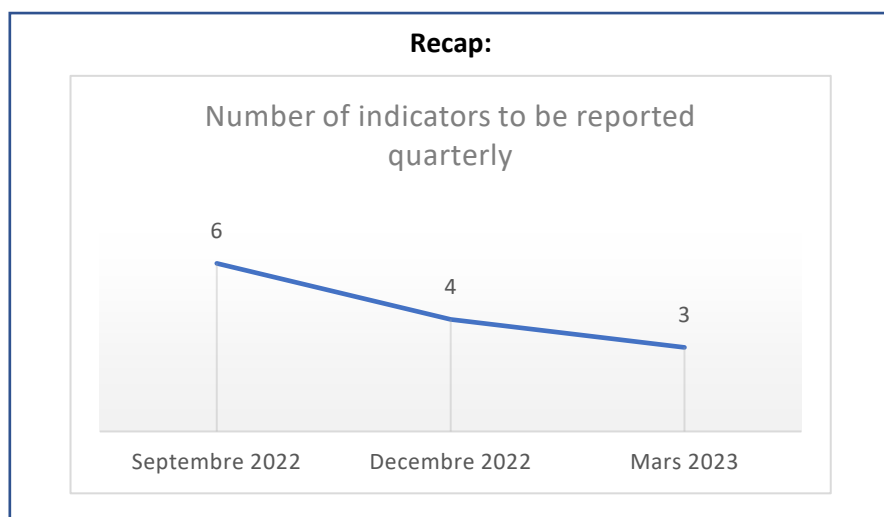
Various elements were taken into account during the development of this strategy including

- Types of RANO WASH project indicators: quarterly and annual (with collection frequency and collectors);
- Achievement of targets by indicator ;
- Information needs of the ICGs, Municipalities and DREAH;
- Transition from the current MEAL system to the DHIS2 platform of the Department of EAH's SE&AM system;
- Period of progressive withdrawal of the team ensuring the collection of the reslutats on ground, a priori the TA ;
- Strategy to ensure data collection and reporting to meet the project need

The following tables summarize the transition of data collection for each RANOWASH project indicator. Also, the table contains the transition/change of data collector in the face of the gradual withdrawal of the field team, the end period of data collection by indicator taking into account the achievement of objectives, and the comment field mentioning the entities that no longer need the data collected.

**Quarterly type indicator: to be collected quarterly**

Ind.#	Reference Indicator	Indicator Title	Level of achievement of objectives (situation Q4FY22)	Responsible for collection during Transition	End of collection period
2.1.3.1		# of WSP/artisans/vendors issued loan products for investment in WASH systems	106%	Compilation MEAL/SO2 régional	Décembre 2022
2.2.1	HL.8.1-1	# of people gaining access to basic drinking water services as a result of USG assistance	73%	GIC, ATEAH, appuyé par TA	Mars 2023
2.2.2	HL.8.1-2	# of people gaining access to safely managed drinking water services as a result of USG assistance	63%	GIC, ATEAH, appuyé par TA	Mars 2023
2.2.3	HL.8.2-2	# of people gaining access to a basic sanitation service as a result of USG assistance	101%	ATEAH, appuyé par TA	Décembre 2022
2.2.4		# of people gaining access to a limited sanitation service as a result of USG assistance	112%	ATEAH, appuyé par TA	Septembre 2022
2.2.1.1		# of infrastructure feasibility studies (APD and APDS reports) completed	100%	Compilation MEAL/SO2 régional/PCT	Septembre 2022
2.2.1.2	HL.8.1-4	# of institutional settings gaining access to basic drinking water services as a result of USG assistance	105%	GIC, ATEAH, appuyé par TA	Décembre 2022
2.2.1.3	HL.8.2-4	# of basic sanitation facilities provided in institutional settings as a result of USG assistance	105%	GIC, ATEAH, appuyé par TA	Décembre 2022
2.3.1.1		# of WSP/commune staff trained in improved WASH service provision	104%	Compilation MEAL/SO2 régional	Septembre 2022
3.2	HL.8.2-1	# of communities verified as “open defecation free” (ODF) as a result of USG assistance	102%	ATEAH, appuyé par TA	Septembre 2022
3.2.1		% communities verified ODF that remain ODF following verification	126%	TA, RD	Septembre 2022
3.2.2.1		# of VSLA members who reported investing in WASH services or products (latrine, water connection, etc.)	103%	TA, RD et/ou AV/PSP	Septembre 2022
3.2.2.3		% intervention communities triggered through CLTS which become verified ODF	82%	TA, RD	Septembre 2022



**Legend**

	Above 100%.
	100%
	90 to 99%.
	Between 50% to 90%.
	Between 20% to 49
	Below 20%.

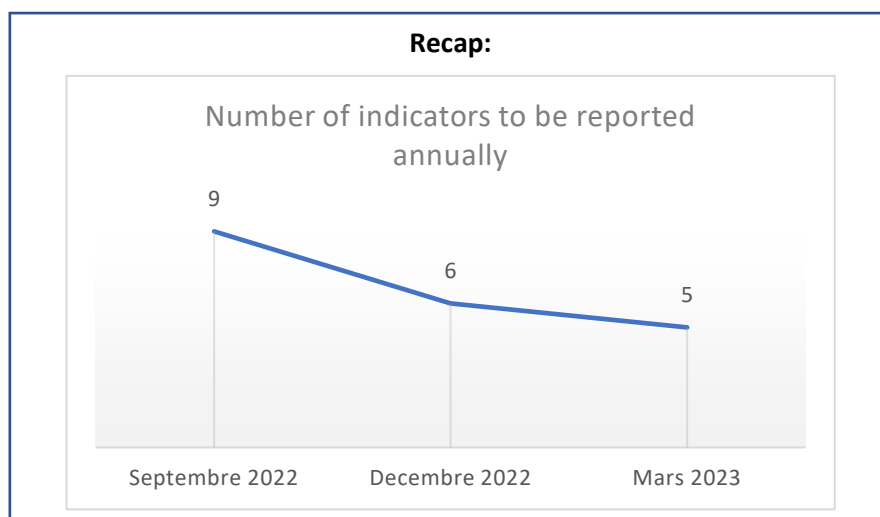
**Annual type indicator: to be collected annually**

Ind. #	Reference Indicator	Indicator Title	Level of achievement of objectives (situation Q4FY22)	Responsible for collection during Transition	End of collection period
I.1		# of intervention communes increasing WASH budget	146%	TA, ATEAH	Septembre 2022
I.2	HL.8.4-1	Value of new funding mobilized to the water and sanitation sectors as a result of USG assistance	91%	MEAL, SO1, SO2	Septembre 2022
I.1.1		National Sector Development Action Plan implemented	Red	MEAL, SOI	Mars 2023
I.1.1.1		National body for WASH sector coordination operational	Yellow	MEAL, SOI	Décembre 2022
I.2.1		% of intervention communes reporting in the national WASH monitoring system (SE&AM)	112%	ATEAH, appuyé par TA	Décembre 2022
I.2.1.1		National WASH monitoring system (SE&AM) tracks gender-sensitive data and quality of WASH service provision	Green	MEAL, SOI	Décembre 2022
I.3.1	HL.8.3-3	# of water and sanitation sector institutions strengthened to manage water resources or improve water supply and sanitation services as a result of USG assistance	110%	Enquête annuelle	Septembre 2022

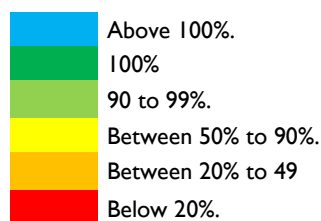
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Ind. #	Reference Indicator	Indicator Title	Level of achievement of objectives  (situation Q4FY22)	Responsible for collection during Transition	End of collection period
1.3.2.1		# of intervention communes engaging with private sector to provide WASH services	105%	TA, ATEAH	Septembre 2022
1.4.1		# of WASH users groups operational in intervention communes	143%	TA, ATEAH	Septembre 2022
1.4.2.1		# of intervention communes with functional WASH accountability mechanisms	101%	TA, ATEAH	Septembre 2022
2.1.1		# of new/improved WASH products and technologies implemented with RANO WASH support	260%	Enquête annuelle	Septembre 2022
2.1.2		# of new water and sanitation services provided with RANO WASH support	104%	TA, GIC ou ATEAH	Mars 2023
2.2.5	HL.8.5-1	# of people benefiting from the adoption and implementation of measures to improve water resources management as a result of USG assistance	86%	SO2, GIC, ATEAH, MEAL	Mars 2023
2.3.1		# of business plans developed for offering consumer WASH products and/or services	114%	SO2	Septembre 2022
2.3.2		% increase in sales for RANO WASH-supported enterprises (average % increase in net sales for enterprises following business training)	143% (Situation FY21)	Enquête annuelle	Décembre 2022
2.3.2.1		# of national professional associations / local cooperatives developed with RANO WASH support	186%	MEAL, SO2	Septembre 2022
3.1	HL.8.2-5	% of households with soap and water at a hand washing station commonly used by family members	141% (Situation FY21)	Enquête annuelle	Décembre 2022
3.1.1		# knowledge products documenting learning produced and disseminated	190%	MEAL	Mars 2023
3.1.2		# intended organizations reporting applying knowledge gained from a knowledge product to improve program, service delivery, training/education, or research practice	113%	MEAL	Mars 2023
3.2	New indicator	# of Communes certified as "open defecation free" (ODF) as a result of USG assistance	113%	ATEAH, appuyé par TA	Décembre 2022





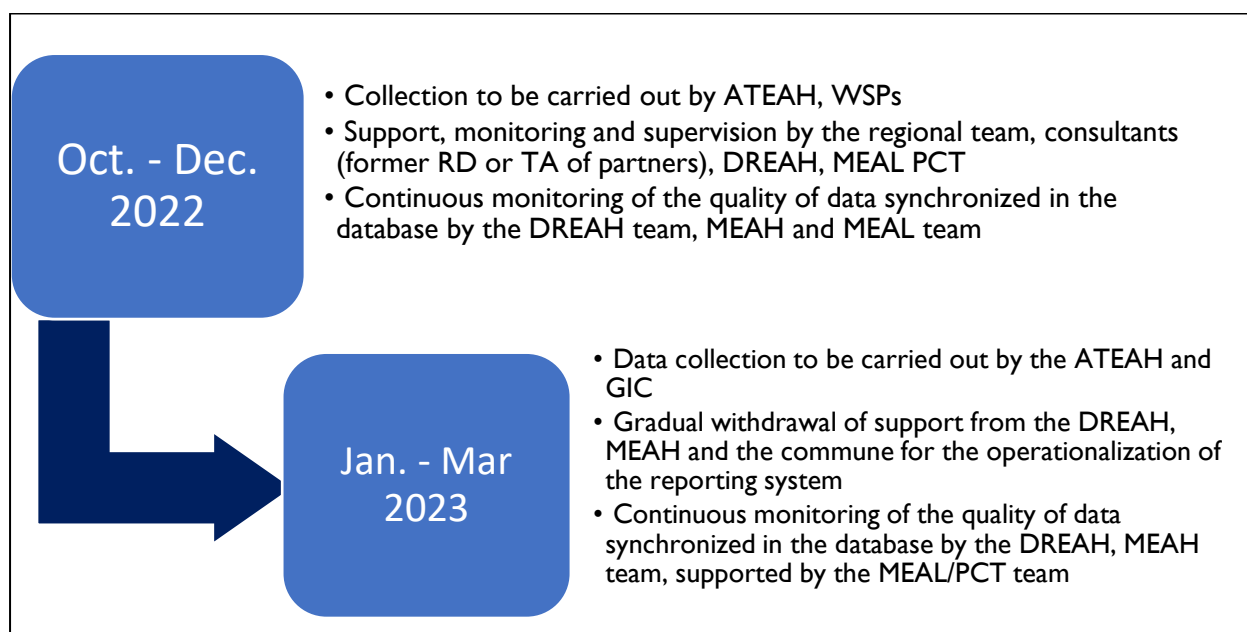
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### **Collection transition and planning**

#### **Transition Plan by Region**

The details of the transition of the collection of achievement data in the seven (06) regions of intervention of the RANOWASH project are summarized in the table below. Starting in October 2022, data collection will be carried out by the WATSAN and ICG staff with the support of some of the project's TAs. The regional team or the staff of each Consortium will ensure the follow-up and supervision with the support of the MDT team. The involvement and accountability of the DREAH in all processes is necessary, as it is responsible for the operationalization of the system in each region.



It is important to note that each consortium member remains accountable to the project and the donor for reporting achievements on the ground during this transition phase.

For each region, the following is the transition modality adopted for data collection:

- **CARE Region:** Vatovavy & Fitovinany, Haute Matsiatra, Amoron'i Mania
  - End of the regional team's intervention: October 2022
  - Data collection by WASH and ICGs
  - Supervision and monitoring of data quality by the central CARE level team, based on identified capacity building needs
  - Systematic monitoring of data feedback in the DHIS2 system - SE&AM
  
- **CRS Region:** Vakinankaratra and Atsinanana
  - End of intervention of the regional team: December 2022
  - Data collection by WASH and ICGs
  - Supervision and monitoring of data quality by RDs and regional team
  - Systematic monitoring of data feedback in the DHIS2 system - SE&AM
  
- **WaterAid Region:** Alaotra Mangoro
  - End of intervention of the regional team: December 2022
  - Data collection by WASH and ICGs
  - Supervision and monitoring of data quality by the regional team
  - Capacity building, framing, collection of deliverables during the monthly WASH meetings at the District level
  - Systematic monitoring of data feedback in the DHIS2 system - SE&AM

Until December 2022, the project team will deploy maximum support to the ATEAH, GIC and DREAH on the use of the DHIS2 in the field. From January 2023, considered the beginning of the exit phase, monitoring and support will be progressively reduced and this will be an opportunity to evaluate the commitment and synergy between the GIC - Commune (through STEAH) - DREAH on the operationalization of the reporting system, developed under DHIS2/SE& AM.

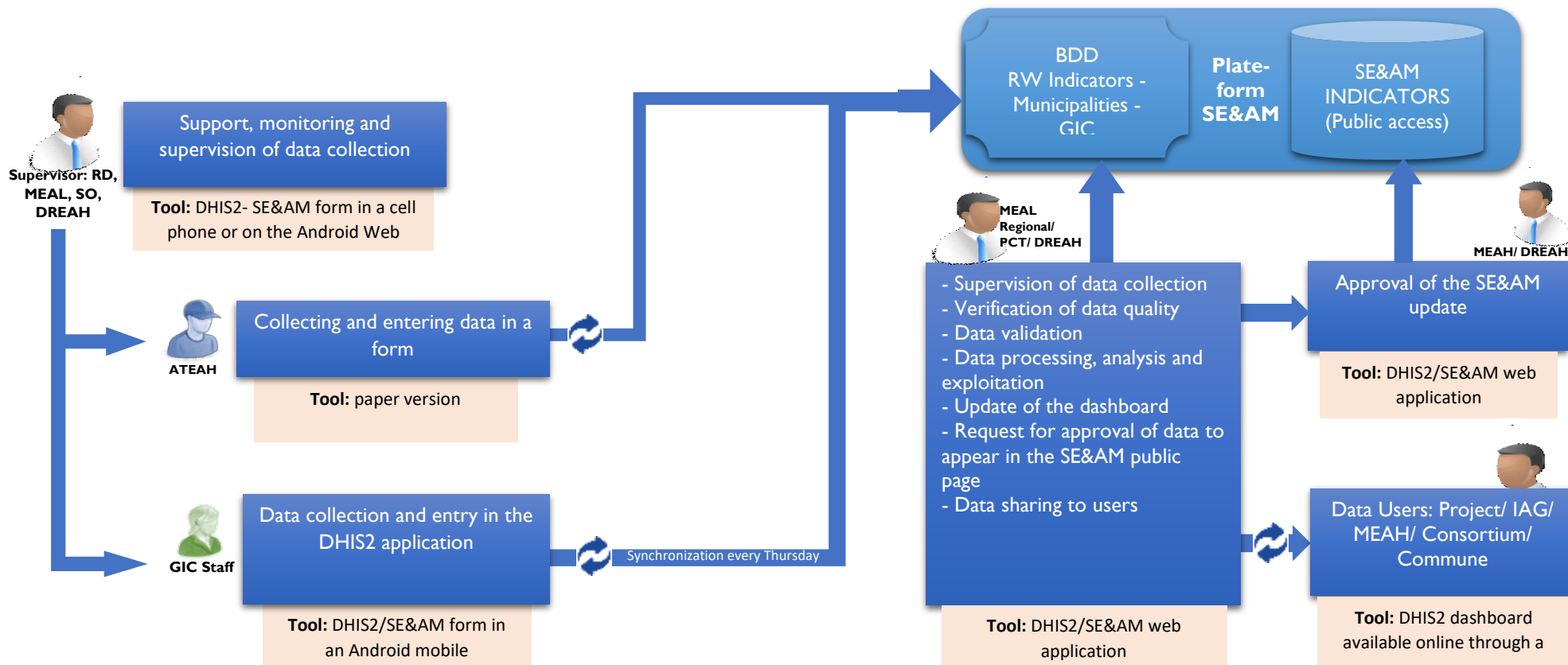
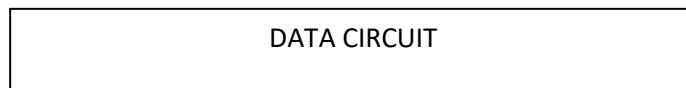
### Planning the implementation of the transition plan

The following plan represents the operationalization of the collection system from the training of the respective managers to the detailed operationalization of the system:

Activities	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
ATEAH, DREAH and GICs training		█						
Various preparations (form enhancement, user account configuration, dispatching of smartphones, tablets and login chips)		█	█					
Data collection and reporting by WASH and ICGs				█	█	█	█	█
Support, monitoring and supervision in the field by the regional team, DREAH and MEAL				█	█	█		
Follow-up and support meeting for the operationalization of the system with the MEAH, DREAH and RANO WASH team				█		█		█
Data Quality Assessment				█	█			
Verification, exploitation, sharing of data				█	█	█	█	█

**Data collection and validation circuit**

For this transition, the data pathway used in the RANOWASH MEAL system will be adapted with the SE&AM data pathway. The SE&AM DHIS2 application will be the tool to be used for data collection. The data collected via DHIS2, by the WASH and ICGs will be synchronized to the SE&AM database, in a specific page for the RANOWASH project, for further processing.



### **Resources needed**

To ensure the operationalization of the system and to better meet the needs of the project, the following requirements are necessary:

- **Material Needs:**
  - 250 Tablets or Android phones: each ATEAH of the 250 Communes of RANO WASH will be equipped with this mobile device to ensure the input and output of data.
  - 46 Tablets for the ICGs: For the first three months of the DHIS2 SE&AM system's operation, the ICGs' staff will also be equipped with a tablet and a connection
  - Chip with internet connection or internet connection: once the entries are made, the person in charge needs to synchronize, in the presence of an internet connection, to allow the transfer and storage of the data in the database and that these data could be exploited afterwards. The project will provide a connection for the first 03 months of the system's operationalization, specifically from October to December 2022. The continuation of this support will depend on the quality of the results obtained.
  - Unique account for each user (Commune, GIC and PTF): to allow users to ensure the quality of their data, it is necessary to have an account for each user.
- **Human resource requirements (project rating)**
  - Project staff, at the regional and central levels, who can adequately monitor the quality of reported data: taking into account the low capacity of the WASHers noted during the training, given the number of forms to be filled out and the assurance of data quality; the availability of project staff, capable of adequately monitoring the quality of data, is necessary in the field during the first three months of system operation. The strategy for ensuring the availability of this staff, or other means of ensuring the quality of the data collected, is the responsibility of each Consortium.

It should be noted that the smartphones already distributed will be among the materials counted as already available to the ATEAHs for this transition plan.

## ANNEX 18. LIST OF REGIONAL COORDINATION MEETINGS HELD IN FY2022

SRMO Meetings (SRMO: WASH regional coordination structure)

Alaoatra Mangoro Region	
November 2021-December 2021 <b>Preparation meetings of the Alaoatra Mangoro Regional WASH Forum</b> <i>Meeting room provided by the Alaoatra Mangoro Governor’s Office</i>	<ul style="list-style-type: none"> <li>• Create three committees to be in charge of organizing the event – logistics, technical and animation committees;</li> <li>• Hold committee meetings to prepare the event.</li> </ul>
December 21-22, 2021 <b>Alaoatra Mangoro Regional WASH Forum</b> <i>Event supported by RANOWASH</i>	<ul style="list-style-type: none"> <li>• Hold a regional event to liaise communes with private enterprises capable of managing and investing in WASH infrastructure in order to increase access to safe drinking water.</li> </ul>
March 2022 <b>Preparatory meetings of the Regional Celebration of World Water Day</b> <i>Meeting room and leadership ensured by DREAH Alaoatra Mangoro</i>	<ul style="list-style-type: none"> <li>• Prepare the regional celebration of World Water day planned for April 5<sup>th</sup>, 2022.</li> </ul>
June 1st, 2022 <b>7<sup>th</sup> SRMO Meeting and Sector Review</b> <i>Lunch, notebooks and pens provided by RANOWASH</i>	<ul style="list-style-type: none"> <li>• Review the Annual Work Plan 2021</li> <li>• Strengthening the coordination of WASH actors in the region and the Co-lead post RANO WASH project</li> <li>• Presentation of WASH situation/achievement</li> <li>• 33 participants: DREAH, DREN, DRPPSPF, ORN, RANOWASH, NGO AINGA, RPIJ, Enterprise RANO ANALA B, SEDERA, SAF FJKM, District Chief Anosibe an'ala, Andilamena, Amparafaravola, Prefect Ambatondrazaka, SG region ALM, DURREL, WaterAid, Mayor of the Commune of Ambatondrazaka, JIRAMA Ambatondrazaka, Ambatondrazaka Red Cross, Directorate of Culture</li> </ul>
Amon'ni Mania Region	

<p>November-December 2021</p> <p><b>Preparatory meetings of the Interregional WASH Fair</b></p> <p><i>Water and meeting room supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• Create 3 committees to prepare the interregional WASH fair: Governance, communication and logistics committees;</li> <li>• Hold committee meetings to prepare the event;</li> <li>• Hold briefing for all organizers of the event;</li> <li>• Collect information about potential fringe support from members (tables and chairs)</li> </ul>
<p>December 15-17, 2021</p> <p><b>Interregional WASH Fair for Amoron'i Mania, Haute Matsiatra, Vatovavy Fitovinana</b></p> <p><i>Tables, chairs and human support from DREAH Amoron'i Mania Media coverage and logistics supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• Liaise communes with private enterprises capable of managing and investing in WASH infrastructure.</li> </ul>
<p>February 25, 2022</p> <p><b>Regional Sector Review</b></p> <p><i>Coffee break and lunch provided by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• Assess sector performance based on regional performance plan;</li> <li>• Coordinate, harmonize and plan for future activities;</li> <li>• Determine future strategic orientations and key actions for the sector.</li> <li>• Participants: 30 Members of SRMO, Regional authorities from the Governor's office, Mayor of the Urban Commune of Ambositra; Technical Services from DRSP, DRAEP, DREN, DR Population, DREDD, DRCC; and regional actors such as UNICEF, AIM, ORN, JIRAMA, ONG NY Tanintsika, Regional OSCEAH, Red Cross, Young Adventist, Antily Madagasikara, VOZAMA, HINA Platform, Association Ny Mamoha, ONG SAHI, CARE KILONGA , RANOWASH</li> </ul>
<p>May 30th, 2022</p> <p><b>Celebration of MHM Day</b></p> <p><i>Logistics supported by RANO WASH, Red Cross, VOZAMA, HINA Platform</i></p>	<ul style="list-style-type: none"> <li>• Sensitize on menstrual hygiene management</li> <li>• Education on the use of washable sanitary pads,</li> <li>• Various animations: tam-tam, quizzes....,</li> <li>• Participants: DREAH, DRSP, DREN, DirPop, members of SRMO</li> </ul>
<p>September 28<sup>th</sup>, 2022</p> <p><b>Sharing the achievements of RANO WASH to all regional actors and authorities</b></p> <p><i>Coffee break and lunch provided by RANO WASH</i></p>	<ul style="list-style-type: none"> <li>• Reminder on RANO WASH project and presentation of changes,</li> <li>• Projecting video on the major achievements of the project for learning in the sector,</li> <li>• Discussion, Questions/Answers</li> <li>• Transfer of Co-Lead of SRMO to the participants</li> <li>• 34 Participants: Gouvernor's Office, Prefect Office, Urban Commune of Ambositra, DREAH, DREN, DRPPSPF, DREDD, DRS, DRAE, DRCC, NY TANINTSIKA, VOZAMA, ORN, FID, Regional WASH CSO, VOTETA SAF</li> </ul>

	FJKM, KILONGA, RANO WASH, AIM, JIRAMA, SAHI NGO/UNICEF, CRM, SCOUT
<b>Atsinanana Region</b>	
<p>November 5, 2021</p> <p><b>Sanitation Sub-Committee Meeting</b></p> <p><i>Meeting room provided by DREAH Atsinanana No lunch as this was a half-day meeting</i></p>	<ul style="list-style-type: none"> <li>• Prepare the regional celebration of World Toilet Day in Brickaville, which was held on November 18-19, 2021;</li> <li>• A wide range of partners were participating and supporting the celebration of WTD, including ACCESS, ODDIT, SANIMARCHE, Saint-Gabriel NGO, DREAH, RANO WASH, AJB, CLEAN IMPACT, ASOS, CISCO, OSCEAH regional and SDSP</li> </ul>
<p>December 2-3, 2021</p> <p><b>Regional WASH Sector Review</b></p> <p><i>Conference venue, coffee break and lunch supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• Assess sector performance ;</li> <li>• Determine future strategic orientations and key actions for the sector.</li> </ul>
<p>March 18, 2022</p> <p><b>Regular coordination meeting: Regional WASH sector Review and other regional initiatives</b></p> <p><i>Lunch and coffee break supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• Reflection on SRMO operationalisation : structuring of the regional consultation committee (4 committees) ;</li> <li>• Reports on emergency responses: Red Cross, CRS/ODDIT, ORN, DREAH;</li> <li>• Sector commitment for 2022;</li> <li>• Preparation of World Water Day celebration;</li> <li>• 25 Participants: DREAH, , ODDIT, RANONTSIKA, AJB, CUT, LOVA VELU, SEDERA Entreprise, CRS , Red Cross, CRS, ODDIT, regional OSCEAH, ORN, CLJ TIANA, Ambatovy, Clean Impact, LCDN NGO, JIRAMA, NMS Entreprise</li> </ul>
<p>May 28th, 2022</p> <p><b>Celebration of MHM Day in the Commune of Antentezambaro</b></p> <p><i>Logistics supported by RANOWASH, PSI, ORN, ACCESS, Madagascar Fauna and Flora Group (MFG), Saint-Gabriel NGO, Chamber of Commerce</i></p>	<ul style="list-style-type: none"> <li>• Preparatory meeting with SRMO members led by DREAH</li> <li>• Prizes provided by DREAH during the celebration</li> <li>• Participants: strong presence and participation of Decentralized Services and SRMO members, including RANOWASH, PSI, ORN, ACCESS, Madagascar Fauna and Flora Group (MFG), Saint-Gabriel NGO, Chamber of Commerce.</li> </ul>
<b>Haute Matsiatra Region</b>	



<p><b>October 2021</b></p> <p><b>Preparatory meetings of the regional celebration of GHWD</b></p> <p><i>Meeting room and leadership ensured by DREAH Haute Matsiatra</i></p>	<ul style="list-style-type: none"> <li>• Preparation meetings of the regional celebration of GHWD 2021;</li> <li>• Involved actors: Eaurizon, FIVOY, RANO WASH, VOZAMA, ny Tanitsika NGO, MIARINTSOA NGO, Le relais, CEDII, KOLO RANO, VOIALA, ACADEMIS, DREAH, DRSP, DREN, Haute Matsiatra Governor’s Office.</li> </ul>
<p><b>October 15, 2021</b></p> <p><b>Regional celebration of GHWD</b></p> <p><i>Banner, beverages, travel and perdiem costs of ODF verification committee supported by RANOWASH</i></p> <p><i>Invitation, media coverage, presentation on WASH, booths and sound system supported by Eaurizon, CEDII and DREAH</i></p>	<ul style="list-style-type: none"> <li>• Celebrate GHWD in the ODF Commune of Maneva, a RANOWASH intervention commune;</li> <li>• Celebrate the achievement of ODF status for this commune;</li> <li>• Involved actors: Eaurizon, FIVOY, RANO WASH, VOZAMA, ny Tanitsika NGO, MIARINTSOA NGO, Le relais, CEDII, KOLO RANO, VOIALA, ACADEMIS, DREAH, DRSP, DREN, Haute Matsiatra Governor’s Office</li> </ul>
<p>November 2021</p> <p><b>Preparatory meetings of the regional celebration of WTD</b></p> <p><i>Room and leadership ensured by DREAH</i></p>	<ul style="list-style-type: none"> <li>• Preparation meetings of the regional celebration of WTD 2021;</li> <li>• Involved actors: Eaurizon, FIVOY, RANO WASH, VOZAMA, ny Tanitsika NGO, MIARINTSOA NGO, Le relais, CEDII, KOLO RANO, VOIALA, ACADEMIS, DREAH, DRSP, DREN, Haute Matsiatra Governor’s Office.</li> </ul>
<p>November 26, 2021</p> <p><b>Regional celebration of WTD</b></p> <p><i>Banner supported by RANOWASH</i></p> <p><i>Cocktail, certification stone, ODF verification committee travel and perdiem costs, booths and sound system supported by Eaurizon</i></p>	<ul style="list-style-type: none"> <li>• Celebrate WTD in the ODF Commune of Ambalakely, an Eaurizon intervention commune;</li> <li>• Celebrate the achievement of ODF status for this commune;</li> <li>• Involved actors: Eaurizon, FIVOY, RANO WASH, VOZAMA, ny Tanitsika NGO, MIARINTSOA NGO, Le relais, CEDII, KOLO RANO, VOIALA, ACADEMIS, DREAH, DRSP, DREN, Haute Matsiatra Governor’s Office</li> </ul>
<p>March 10, 2022</p> <p><b>Preparation meeting of the regional celebration of Water Week 2022</b></p> <p><i>Meeting room and leadership ensured by DREAH Haute Matsiatra</i></p>	<ul style="list-style-type: none"> <li>• Determine celebration activities for Water Week and for World Water Day 2022;</li> <li>• Appoint responsible actor for each activity;</li> <li>• Discuss about finances for the event;</li> <li>• Participants: DREAH, NY TANINTSIKA, RANOWASH, Eaurizon, CEDII.</li> </ul>

<p>March 21st, 2022</p> <p><b>Sharing workshop on IWRM</b></p> <p><i>Lunch and coffee break supported by Eaurizon</i></p>	<ul style="list-style-type: none"> <li>• Presentation of IWRM actors in the Region;</li> <li>• Discussions;</li> <li>• Participants: DREAH, DREDD, DRPPSPF, University of Andrainjato, NY TANINTSIKA, RANOWASH, Eaurizon, Kolo Rano, Rano Eau, DREAH Itasy, Actors from Rés'Eau Haute Matsiatra, Mayors, water managers, Region.</li> </ul>
<p>March 22, 2022</p> <p><b>Training in WASH budgeting and tax mobilization for local actors</b></p> <p><i>Lunch and coffee break supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• WASH budget in primary budget;</li> <li>• Programme budget 2022;</li> <li>• Budgeting and legal frameworks;</li> <li>• Local funding sources;</li> <li>• Discussions.</li> <li>• 120 Participants: DREAH, DREN, DRPPSPF, Population, DREDD, SRB, DRI, NY TANINTSIKA, RANOWASH, Eaurizon, Rano Eau, DREAH Itasy, Members of Rés'Eau Haute Matsiatra, 30 Mayors, 30 Accountants/Treasurers of Communes, Water managers, Region; DIDR and DAF.</li> </ul>
<p>March 23, 2022</p> <p><b>Presentation workshop of Regional STEFI 2022</b></p> <p><i>Lunch and coffee break supported by Eaurizon</i></p> <p>Communication and media coverage by FIVOY, a member of Rés 'Eau</p>	<ul style="list-style-type: none"> <li>• Presentation of regional sector performance;</li> <li>• Analysis;</li> <li>• Discussions ;</li> <li>• 180 Participants: DREAH, DREN, DRPPSPF, Population, DREDD, NY TANINTSIKA, RANOWASH, Eaurizon, Rano Eau, DREAH Itasy, Members of Rés'Eau Haute Matsiatra, 30 Mayors, 30 Accountants/Treasurers from Communes, Private enterprises and associations managers of water, Region; DIDR and General Secretary, 18 Community agents for WASH / ATEAH.</li> </ul>
<p>March 24, 2022</p> <p><b>Presentation workshop on water observatory and presentation of the ATPC Campaign</b></p>	<ul style="list-style-type: none"> <li>• Presentation of the hydrogeological situation of the Region;</li> <li>• Presentation of various factors impacting water issues ;</li> <li>• Discussions;</li> <li>• Presentation of a study on ATPC;</li> <li>• Analysis and strategic orientation for sustainable ATPC</li> <li>• Participants: DREAH, NY TANINTSIKA, RANOWASH, DRPPSPF, Population, METEO, JIRAMA, DREDD, NY TANINTSIKA, RANOWASH, Eaurizon, Rano Eau, DREAH Itasy, Members of Rés'Eau Haute Matsiatra, 5 Mayors, 30 Accountants/Treasurers from Communes, Private enterprises and associations managers of water, Region;</li> </ul>
<p>March 25, 2022</p> <p><b>Sector Review workshop and conference/debate on WASH systems</b></p>	<ul style="list-style-type: none"> <li>• Presentation of sector performance based on program contract;</li> <li>• Analysis;</li> <li>• Discussions on how to improve sector governance: strengthening government leadership by DREAH, new intervention strategy,</li> <li>• 60 Participants:</li> </ul>

<p>Lunch and coffee break supported by RANOWASH</p>	<ul style="list-style-type: none"> <li>- DREAH, NY TANINTSIKA, RANO WASH, Eaurizon, JIRAMA, Members of Rés'Eau Haute Matsiatra, Region;</li> </ul>
<p>May 30<sup>th</sup>, 2022</p> <p><b>Preparatory meeting of the celebration of Global MHM Day 2022 at CEDII Tsianolondroa Fianarantsoa</b></p> <p><i>Room provided by CEDII</i></p>	<ul style="list-style-type: none"> <li>• Determine activities to be carried out during the celebration of MHM Day celebration</li> <li>• Determine the responsibilities of each actor</li> <li>• Discuss the financing of the event and transportation</li> <li>• Attendees: DREAH, NY TANINTSIKA, RANOWASH, Eaurizon, CEDII, FIVOY, Youth Associations</li> </ul>
<p>May 31<sup>st</sup>, 2022</p> <p><b>Celebration of MHM Day in Talata Ampano, District of Vohibato</b></p> <p><i>Prizes provided by RANO WASH, lunch and transport supported by each participating organization</i></p>	<ul style="list-style-type: none"> <li>• Various entertainment and quizzes</li> <li>• Discussion and exchange.</li> <li>• Attendees: DREAH, DRPPSPF, Andrainjato University, NY TANINTSIKA, RANOWASH, Eaurizon, Kolo Rano, Ran'Eau, Haute Matsiatra Rés'Eau of actors, Mayors, Region, Youth Association, local community.</li> </ul>
<p>July 26-27<sup>th</sup>, 2022</p> <p><b>Project Design Training</b></p>	<ul style="list-style-type: none"> <li>• WASH project design training,</li> <li>• Project design exercise,</li> <li>• Participants: 18 members of SRMO Haute Matsiatra</li> </ul>
<p>September 9<sup>th</sup>, 2022</p> <p><b>SRMO/Res'Eau Reflection Meeting</b></p>	<ul style="list-style-type: none"> <li>• Reflection on the future and sustainability of SRMO,</li> <li>• Sharing and exchanges,</li> <li>• Presentation of various options to secure fund for the operations of SRMO,</li> <li>• Participants: DREAH, SRMO Facilitator, Eaurizon, Ny Tanitsika, and member associations</li> </ul>
<p>September 13-14<sup>th</sup>, 2022</p> <p><b>RANO WASH Withdrawal Preparation Workshop and Skills Transfer to Res'Eau</b></p> <p><i>Lunch and coffee break supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• Share the monitoring tools used by RANO WASH during the project life,</li> <li>• Capitalization of achievements per Commune,</li> <li>• Transfer of achievements to technical and financial partners as well as to relevant decentralized authorities,</li> <li>• 37 Participants: intervention communes of RANO WASH (mayor, advisor, WASH CSO, STEAH), RANO WASH, DREAH, DRSPPF, DRPPSPF</li> </ul>

<p>September 17<sup>th</sup>, 2022</p> <p><b>Celebration of World CleanUp Day</b></p> <p><i>Logistics and others supported by RANOWASH, Eaurizon, RAN'EAU</i></p>	<ul style="list-style-type: none"> <li>• Mobilize WASH actors,</li> <li>• Mobilize SRMO members to participate in sanitation initiatives,</li> <li>• Participants: DREAH, DREN, DRPPSPF, NY TANINTSIKA, Technical and Financial Partners, Youth Associations and WASH actors in the Haute Matsiatra Region.</li> </ul>
<p><b>Vakinankaratra Region</b></p>	
<p>October 2021</p> <p><b>Regional Celebration of GHWD 2021</b></p> <p><i>Invitation and leadership ensured by DREAH</i></p> <p><i>Handwashing facilities and cleaning materials provided by RANOWASH, RAN'EAU, GRET, HINA Platform, ONN, ACCESS, UNICEF</i></p>	<ul style="list-style-type: none"> <li>• Celebration of Global Handwashing Day 2021 in Antsirabe, actively animated and supported by members of SRMO.</li> </ul>
<p>November 19-20, 2021</p> <p><b>Sharing workshop on behavior change strategies</b> (concurrently with WTD celebration)</p> <p><i>Meeting room and leadership ensured by DREAH</i></p> <p><i>Coffee break and lunch as well as travel and per diem costs of actors in charge of sharing supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• Share behavior change strategies</li> </ul>
<p>November 19-20, 2021</p> <p><b>Regional Celebration of WTD 2021</b></p> <p><i>Mobile sound system supported by RANOWASH</i></p> <p><i>Cocktail, celebration platform, cocktail, decorations, inauguration of local facility and lunch supported by FAA</i></p> <p><i>Travel to the celebration site ensured individually by the participants</i></p>	<ul style="list-style-type: none"> <li>• Celebrate WTD on November 19-20, 2021, actively animated and supported by SRMO members.</li> </ul>

Vakinankaratra Region	
<p>December 2021</p> <p><b>Planned regional WASH sector review</b> (cancelled)</p>	<ul style="list-style-type: none"> <li>Regional WASH sector review to assess sector performance and determine future strategic orientations and key actions for the sector;</li> <li>Cancelled due to a change in the DREAH a few days before the event and will be postponed to Q2 FY22.</li> </ul>
<p>March 2022</p> <p><b>Preparatory meetings of the Regional Celebration of World Water Day</b></p> <p><i>Meeting room and leadership ensured by DREAH</i></p>	<ul style="list-style-type: none"> <li>Prepare the regional celebration of World Water Day planned for March 24<sup>th</sup>, 2022.</li> </ul>
<p>March 24<sup>th</sup>, 2022</p> <p><b>Regional Celebration of World Water Day</b></p> <p><i>Banner provided by RANOWASH. Event supported by RANOWASH, GRET, RAN'EAU, HINA Platform, ONN, ACCESS, UNICEF.</i></p>	<ul style="list-style-type: none"> <li>Regional celebration of World Water day for Vakinankaratra.</li> </ul>
<p><b>May 24 and 25, 2022</b></p> <p><b>Celebration of Global MHM Day 2022 and Sharing and learning workshop on behavior change and WASH system approach</b></p> <p><i>Room, coffee break and lunch for 115 participants supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>Sharing workshop on behavior change strategies and results with SRMO member, ATEAHs and actors from communes (VSLA members, CL, households, commune WASH CSOs)</li> <li>Competitions and events on WASH topics</li> <li>Animations on Menstrual Hygiene Management and the use of sanitary pads</li> <li>Attendees: Region, DREAH, DREN, DRPPSPF, DRS, Heads of the 3 intervention districts of RANO WASH, SAF FJKM, RAN'Eau, EC Abraham (Soanindrariny), RANO WASH, ATEAH of the intervention communes of RANOWASH, Mayors, ML, CL, VSLA members, representatives of commune WASH CSOs)</li> </ul>
<p><b>June 22, 2022</b></p> <p><b>STEFI results presentation workshop</b></p>	<ul style="list-style-type: none"> <li>Present STEFI results of the systems in Faratsiho, Andranomanelatra and Ambatomiady</li> <li>Participants: DREAH, RAN'Eau, RANO WASH, Betafo and Antsirabe II Districts, Mayors of Andranomanelatra, Soanindrariny, Ambohitsimanova, Antsoantany, Ambano, Mandoto, Betafo, 2ADH, ECA, Lova Velu, Ranovelona,</li> </ul>

<p><i>Room, coffee break and lunch supported by RANOWASH</i></p>	<p>BETMG2C, Miharindrano, ATEAH of Ambohimambola, Antsoantany, Ambohitsimanova, Soanindrarinny</p>
<p><b>October 6<sup>th</sup>, 2022</b>  <b>Coordination meeting led by the DREAH</b>  <i>Room and leadership ensured by DREAH</i></p>	<ul style="list-style-type: none"> <li>• Meeting to follow-up the regional objectives</li> <li>• Preparatory meeting of the World Day of Regions</li> <li>• Participants: DREAH and partners</li> </ul>
<p><b>Vatovavy &amp; Fitovivany Regions</b></p>	
<p>October 2021  <b>Verification of self-declared ODF communes</b>  <i>Event supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• Assess self-declared ODF communes by DREAH, Prefect, District, Regional Directorate of Public Health and Population.</li> </ul>
<p>November 17, 2021  <b>Regular coordination meeting: Regional WASH sector Review and other regional initiatives</b>  <i>Lunch and coffee break supported by RANOWASH for 20 participants and by ADRA for 22 participants</i></p>	<ul style="list-style-type: none"> <li>• Assess sector performance;</li> <li>• Determine future strategic orientations and key actions for the sector.</li> <li>• Discuss emergency response, the “Communes Madio” Contest and prepare WTD Celebration</li> <li>• Participants: DREAH, DREN, DRPPSPF, NY TANINTSIKA, RANOWASH, ADRA, UNICEF, WASH CSO/ASOS, SAF FJKM, Presidents of local masons and seamstress, as well as water system managers Lakay (in Sahasinaka), FITAHIANA Entreprise (in Fenomby and Namorona), EC Abraham (in Vohitrindry), Bush proof (in Andemaka and Tolongoina), Mickael (Antaretra, Lokomby, and Kianjavato),</li> </ul>
<p>December 8, 2021  <b>Celebration of World Toilet Day</b>  <i>Event supported by RANOWASH with contributions from ACCESS and SAF/FJKM</i></p>	<ul style="list-style-type: none"> <li>• Celebrate World Toilet Day in collaboration with regional authorities, Mayors, ACCESS, SAF/FJKM, etc.</li> </ul>

Vatovavy & Fitovivany Regions	
<p>December 13, 2021</p> <p><b>Assessment and Declaration of ODF communes</b></p> <p><i>Event supported by RANOWASH</i></p>	<ul style="list-style-type: none"> <li>• Assess self-declared ODF Communes;</li> <li>• Official declaration of ODF status if satisfactory.</li> </ul>
<p>January 2022</p> <p><b>Meeting on Regional Contingency Plan</b></p> <p><i>Water, coffee break and lunch supported by UNICEF and WFP</i></p>	<ul style="list-style-type: none"> <li>• Meeting with BNGRC on the contingency plan of the Fitovivany Region;</li> <li>• Participants: all actors in the region, including regional technical services, projects and programmes intervening in the Region.</li> </ul>
<p>February 2022:</p> <p><b>Extraordinary meeting to prepare for the arrival of Cyclone Batsirai</b></p> <p><i>Meeting room provided by the Urban Commune</i></p>	<ul style="list-style-type: none"> <li>• Prepare the locations to welcome vulnerable people from highly impacted Fokontany: Public Primary School, High School, churches;</li> <li>• Set up toilets at these sites (by DREAH, RANOWASH, UNICEF and ACCES);</li> </ul>
<p>March 9, 2022</p> <p><b>Preparatory meeting of the national celebration of World Water Day in Manakara</b></p> <p><i>This was an online meeting</i></p>	<ul style="list-style-type: none"> <li>• Setting final budget (covering unfunded budget);</li> <li>• Contact organizers;</li> <li>• Finalize invitations (DCP and RANOWASH);</li> <li>• Etc.</li> </ul>
<p>March 15, 2022</p> <p><b>Meeting of SRMO members, Regional Services and Financial and Technical Partners</b></p> <p><i>Meeting room provided by DREAH V7V</i></p>	<ul style="list-style-type: none"> <li>• Presentation of available budget per component;</li> <li>• Covering of unfunded budget component by each member;</li> </ul>
<p>March 21, 2022</p> <p><b>Last Preparation meeting of World Water Day celebration</b></p> <p><i>Meeting room provided by the Prefect's Office</i></p>	<ul style="list-style-type: none"> <li>• Presentation of the celebration agenda;</li> <li>• Various protocols required for the presence of Minister of WASH.</li> </ul>

<p>March 22, 2022</p> <p><b>National celebration of World Water Day in Manakara</b></p> <p><i>Costs shared between UNICEF, RANOWASH, WHO, ADRA, ACCES, Region, Prefect Office, MEAH/DREAH, DREDD, CPC...</i></p>	<ul style="list-style-type: none"> <li>• Celebration at the City Hall Manakara;</li> <li>• Conference debate in the meeting room of the Urban Commune of Manakara on Groundwater</li> <li>• Visit of the water infrastructure in the Rural Commune of Vohitrindry, Vohipeno District in the presence of the Minister of WASH, RANOWASH COP and DCOP, various technical and finance partners, technical services and members of the SRMO.</li> </ul>
<p>March 23, 2022</p> <p><b>Reforestation in Ambila District, Manakara</b></p> <p><i>Costs shared between UNICEF, RANOWASH, WHO, ADRA, ACCES, Region, Prefect Office, MEAH/DREAH, DREDD, MP Rasidy and CPC</i></p>	<ul style="list-style-type: none"> <li>• Reforestation as part of World Water Day 2022 celebration.</li> </ul>
<p>March 24, 2022</p> <p><b>Preparatory meeting for the commemoration of March 29, 1947 fight for independence</b></p>	<ul style="list-style-type: none"> <li>• Discussion about:             <ul style="list-style-type: none"> <li>○ expense coverage by each partner;</li> <li>○ Agenda of the commemoration;</li> <li>○ Cleanliness of the City of Manakara and the FCE train station.</li> </ul> </li> </ul>
<p>February and March 2022</p> <p><b>Online Cluster meeting</b></p>	<ul style="list-style-type: none"> <li>• Prepare responses to 2 cyclones (Batsirai and Emnati);</li> <li>• Review the action plans of members for 2022 and brief presentation of key achievements;</li> <li>• Meeting with the operations centre for Risks and Disaster Management of Mananjary.</li> </ul>
<p>June 10th, 2022</p> <p><b>Regular SRMO Coordination Meeting</b></p> <p><i>Water, coffee break and lunch provided by ACCESS Project</i></p>	<ul style="list-style-type: none"> <li>• Present the meeting objectives and agenda</li> <li>• Present the achievements of all actors (1<sup>st</sup> half of 2022), and their perspectives until the end of December 2022,</li> <li>• Responses to post-cyclonic emergencies,</li> <li>• Organize the celebration of World Days for this 2<sup>nd</sup> half of 2022 (World Toilet Day and Global MHM Day),</li> <li>• Finalize the “COMMUNES MADIO” competition,</li> <li>• Others and sharing.</li> </ul>
<p>April 27<sup>th</sup>, 2022</p> <p><b>Second Quarterly Meeting of the WASH Health Cluster</b></p>	<ul style="list-style-type: none"> <li>• Present the meeting objectives and agenda</li> <li>• Present the EMAD (District Management Team) followed by discussions,</li> <li>• Presentation achieved activities and perspectives of partners,</li> <li>• Coordinate activities,</li> <li>• Present results;</li> </ul>



<p>May 27<sup>th</sup>, 2022</p> <p><b>Celebration of MHM Day in Andemaka</b></p> <p><i>Prizes provided by RANO WASH, Care and Care Emergency</i></p>	<ul style="list-style-type: none"> <li>• Sensitize Andemaka high school students on menstrual hygiene</li> <li>• Education and awareness on the use of washable sanitary pads,</li> <li>• Various animations: tam-tam, quizzes....,</li> <li>• Promoting water connections: drawing lots and rewarding of 20 beneficiary households;</li> </ul>
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<p>August 3<sup>rd</sup>, 2022</p> <p><b>Online Coordination Meeting</b></p>	<ul style="list-style-type: none"> <li>• Setup the planning for verifying and certifying the ODF Communes during the V7V MADIO competition</li> <li>• <b>Participants</b> : DREAH, DREN, DRS, DRPPSPF, RANO WASH, ACCESS EAH, MCDI, ACCESS, Prefect office, ASOS, Ny Tanintsika NGO</li> </ul> <p><b>Planning :</b></p> <table border="1"> <thead> <tr> <th>Commune</th> <th>Verification Date</th> <th>Certification Date</th> </tr> </thead> <tbody> <tr><td>Andonabe</td><td>10/08/2022</td><td>12/08/2022</td></tr> <tr><td>Mitanty</td><td>23/09/2021</td><td>18/08/2022</td></tr> <tr><td>Vinanitelo</td><td>23/09/2021</td><td>19/08/2022</td></tr> <tr><td>Mahamaibe</td><td>19/09/2021</td><td>22/08/2022</td></tr> <tr><td>Anoloka</td><td>12/07/2021</td><td>16/08/2022</td></tr> <tr><td>Ambahive</td><td>09/09/2021</td><td>17/08/2022</td></tr> <tr><td>Anorombato</td><td>24/09/2021</td><td>19/08/2022</td></tr> <tr><td>Namorona</td><td>08/09/2022</td><td>15/09/2022</td></tr> <tr><td>Vohitrindry</td><td>24/08/2022</td><td>12/09/2022</td></tr> <tr><td>Ampasimanjeva</td><td>09/09/2022</td><td>16/09/2022</td></tr> <tr><td>Fenomby</td><td>06/09/2022</td><td>15/09/2022</td></tr> <tr><td>Andefampony</td><td>20/08/2022</td><td>25/08/2022</td></tr> <tr><td>Manampatrana</td><td>20/08/2022</td><td>27/08/2022</td></tr> <tr><td>Tsifenokataka</td><td>19/12/2021</td><td>15/09/2022</td></tr> </tbody> </table>	Commune	Verification Date	Certification Date	Andonabe	10/08/2022	12/08/2022	Mitanty	23/09/2021	18/08/2022	Vinanitelo	23/09/2021	19/08/2022	Mahamaibe	19/09/2021	22/08/2022	Anoloka	12/07/2021	16/08/2022	Ambahive	09/09/2021	17/08/2022	Anorombato	24/09/2021	19/08/2022	Namorona	08/09/2022	15/09/2022	Vohitrindry	24/08/2022	12/09/2022	Ampasimanjeva	09/09/2022	16/09/2022	Fenomby	06/09/2022	15/09/2022	Andefampony	20/08/2022	25/08/2022	Manampatrana	20/08/2022	27/08/2022	Tsifenokataka	19/12/2021	15/09/2022
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<p><b>September 12th and 13th, 2022</b></p> <p><b>WASH Friendly School Training for the Commune of Kelilalina, Ifanadiana District</b></p> <p><i>Trainer’s perdiem and travel costs provided by RANO WASH</i></p>	<ul style="list-style-type: none"> <li>• WASH Friendly School Training led by the School Health Officer (SHO) of the Regional Directorate of National Education Fitovinany and attended by the SHO of the CISCO Ifanadiana and CISCO Mananjary respectively.</li> </ul>
<p><b>September 14-15<sup>th</sup>, 2022</b></p> <p><b>WASH Friendly School Training for the Commune of Andonabe, Mananjary District</b></p>	

<i>Trainer's per diem and travel costs provided by RANO WASH</i>	
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## ANNEX 19. QUICK WINS FROM THE LOCAL STRUCTURES FY2022

Region / Municipality	Examples of Quick win from Accountability Mechanisms during FY22
<b>ALAOTRA MANGORO / AMBANDRIKA (Q1 FY22)</b>	<p>During the opening of suggestion boxes as part of the accountability mechanism, several households complained about not being able to build their latrines as they needed more space for this construction in their backyard.</p> <p><b>Result:</b> The Commune and Fokontany donated lands to these households for building toilets.</p>
<b>ALAOTRA MANGORO / MBOAVORY (Q2 FY22)</b>	<p>During community meetings, the population requested the need to rehabilitate the existing water infrastructure and to take action towards open defecation in the Commune.</p> <p><b>Result:</b> The Mayor and his Deputy, the STEAH, the TA, Chiefs of Fokontany, Members of Water User Associations, and community members worked together to achieve the rehabilitation of 23 tap stands and to put an end to open defecation.</p>
<b>ALAOTRA MANGORO / VOHIMENA (Q4 FY22)</b>	<p>During community meetings, people have expressed the need to extend the water supply system in the administrative center of the Commune.</p> <p><b>Result:</b> The Commune has extended the system, providing access to safe water to additional users.</p>
<b>AMORON'I MANIA / ALAKAMISY AMBOHIJATO (Q3 FY22)</b>	<p>During community meetings, the population requested the need to repair the catchment facility of the gravity-fed water supply of the Commune and some leaking pipes.</p> <p><b>Result:</b> The STEAH conducted monitoring of the facility, during which he determined the need to repair these facilities. RANOWASH supported with some construction materials, and the Commune mobilized a local mason contracting with them to conduct the repair.</p>

Region / Municipality	Examples of Quick win from Accountability Mechanisms during FY22
<b>AMORON'I MANIA / AMBOHIMAHAZO (Q3 FY22)</b>	<p>Following requests during community meetings, water users requested a reduction in water tariffs.</p> <p><b>Result:</b> Water price was reduced from 60 to 40 Ariary per 20-liter jerrycan.</p>
<b>AMORON'I MANIA / AMBOHIMILANJA (Q2 FY22)</b>	<p>Through the suggestion boxes, the communities requested the treatment of water sources in the commune, which are currently untreated, and the wells unprotected.</p> <p><b>Result:</b> The fokontany set up sand filters at each well.</p>
<b>AMORON'I MANIA / AMBOSITRA 2 (Q3 FY22)</b>	<p>During community meetings, the water users requested the repair of a water divider device between the Fokontany of Ampila and Vohimalaza.</p> <p><b>Result:</b> The water user association managed to gather 80 000 Ariary or 10 000 Ariary per tap stand to conduct the repair, which benefitted 213 households in these two fokontany.</p>
<b>AMORON'I MANIA / ANJOMA ANKONA (Q3 FY22)</b>	<p>During a community meeting, the water users requested the repair of leaks at the catchment facility of the water supply system of the Commune and some leaking pipes.</p> <p><b>Result:</b> The chief of Fokontany requested support from RANOWASH, who provided three bags of cement. The Commune mobilized a local mason contracting with them to conduct the repair, which enabled safe drinking water to 150 households in the Fokontany of Fizinàna and Ambalamahasoà.</p>
<b>AMORON'I MANIA / ILAKA CENTRE (Q1 FY 22)</b>	<p>As expressed during community meetings, the water sources in the village of Ankeniheny were not protected, and the population became aware of this during the sensitization conducted by the WASH CSO.</p> <p><b>Result:</b> Communities have organized among themselves for the protection of such sources.</p>

Region / Municipality	Examples of Quick win from Accountability Mechanisms during FY22
<b>AMORON'I MANIA / ILANJANA (Q4 FY22)</b>	<p>The population has expressed the need to build a toilet facility at the Commune's office.</p> <p><b>Result:</b> With the support of all local stakeholders, including the WASH CSOs, SLC, Chiefs of Fokontany, and local masons, the Commune built a toilet facility at the Town Hall.</p>
<b>AMORON'I MANIA / SAHAMADIO FISAKANA (Q2 FY22)</b>	<p>Communities complained about the cleanliness of the town center area via the suggestion boxes.</p> <p><b>Result:</b> The Commune organized a general cleaning day and set up a dumpster in this location.</p>
<b>AMORON'I MANIA / SAHAMADIO FISAKANA (Q3 FY22)</b>	<p>During a community meeting, the water users requested the repair of some damaged tap stands and taps.</p> <p><b>Result:</b> The Commune mobilized local masons trained by RANOWASH to repair, and the project provided new taps, which enabled the provision of safe drinking water to an additional 173 households in the Fokontany of Andrainarivo and Mahazina.</p>
<b>AMORON'I MANIA / TSARASAOTRA (Q4 FY22)</b>	<p>During community meetings, the population requested the rehabilitation of water infrastructure.</p> <p><b>Result:</b> The Commune, with the support of all local stakeholders, proceeded with the rehabilitation and strengthened the water catchment facilities, thus restoring access to safe drinking water for 1053 users in 5 Fokontany.</p>
<b>ATSINANANA / ANTSAMPANANA (Q2 FY22)</b>	<p>Community members complained that the municipal authorities did not act upon their grievances.</p> <p><b>Result:</b> Mayor and council validated holding periodic WASH CSO meetings in which the Commune will pay members allowances to handle community grievances.</p>

Region / Municipality	Examples of Quick win from Accountability Mechanisms during FY22
<b>ATSINANANA / FANANDRANA (Q4 FY22)</b>	<p>During community meetings, the population complained about the need to build latrines at the marketplace.</p> <p><b>Result:</b> The Commune started building latrines at the marketplace during this FY.</p>
<b>ATSINANANA / ILAKA EST (Q1 FY22)</b>	<p>From community scorecards, the lack of water during the dry period has emerged as one of the community concerns in the Commune.</p> <p><b>Result:</b> Collaboration was started with the ASUREP, the water manager in the Commune, and the beneficiary communities for the construction of one water well.</p>
<b>ATSINANANA / ILAKA EST (Q2 FY22)</b>	<p>WASH-friendly</p>
<b>ATSINANANA / LOHARIANDAVA (Q2 FY22)</b>	<p>During meetings, community members have expressed the need for reforestation in the Commune.</p> <p><b>Result:</b> Reforestation was conducted following negotiations with landowners and meetings to implement the initiative.</p>
<b>ATSINANANA / MAHATSARA (Q4 FY22)</b>	<p>During community meetings, the population expressed the need to support them to be able to afford the private connection price, which was 340 000 Ariary.</p> <p><b>Result:</b> The water manager agreed to launch a promotion for private connections, increasing the number of private connections, thus, the water users as well.</p>
<b>ATSINANANA / NIAROVANA CAROLINE (Q3 FY22)</b>	<p>During community meetings, the communities complained about water cuts for a few months due to the construction of the RN IIA road.</p> <p><b>Result:</b> The local structures such as WASH CSO, SLC, and STEAH advocated the resolution of this water cut with the MEAH and</p>

Region / Municipality	Examples of Quick win from Accountability Mechanisms during FY22
	DREAH, which resulted in the water supply system’s functionality being restored.
<b>ATSINANANA / SATRANDROY (Q2 FY22)</b>	<p>Following requests during community meetings and various feedback mechanisms, the SLC has become aware of its roles.</p> <p><b>Result:</b> The SLC is now operational and conducts biannual consultations.</p>
<b>HAUTE MATSIATRA / AMBALAMHASOA (Q4 FY22)</b>	<p>Community meetings were used for advertising water connections, coupled with VSLA competitions.</p> <p><b>Result:</b> 105 private connections are operational, providing access to 1 044 beneficiaries.</p>
<b>HAUTE MATSIATRA / ANDRAINJATO EST (Q3 FY22)</b>	<p>During community meetings, the population raised the need to build water supply infrastructure.</p> <p><b>Result:</b> With the support of RANOWASH, the Commune worked with the private water manager, the STEAH, and the water user association to provide safe drinking water through 96 private connectionists, eight social connections, and six institutional connections.</p>
<b>HAUTE MATSIATRA / ANDRANOVORIVATO (Q1 FY22)</b>	<p>Communities requested transparency of tax revenues and expenses of the Commune during community meetings as part of the accountability mechanism.</p> <p><b>Result:</b> The Commune is now posting tax revenues and expenses, ensuring transparency of Commune funds management.</p>

Region / Municipality	Examples of Quick win from Accountability Mechanisms during FY22
<b>HAUTE MATSIATRA / ANDROY (Q4 FY22)</b>	<p>During community meetings, the population requested the need to extend the water supply system in the Commune.</p> <p><b>Result:</b> Following the identification of priority needs and mobilization of taxes, the Commune decided to extend the water supply system to the Fokontany of Nanda or Tambohivo and has allocated 3 000 000 Ariary for this future project.</p>
<b>HAUTE MATSIATRA / KIRANO (Q2 FY22)</b>	<p>Through the suggestion boxes, the communities requested better management of tax money and road rehabilitation.</p> <p><b>Result:</b> The Commune responded to community feedback by improving tax management and rehabilitating roads.</p>
<b>HAUTE MATSIATRA / VINANINORO OUEST (Q3 FY22)</b>	<p>The suggestion boxes of the Commune contained a request from the VSLA Assistants requesting payment of their indemnity when providing support to the VSLA.</p> <p><b>Result:</b> The Commune passed a decree ordering an indemnity payment of 3,000 Ariary per VSLA Assistant when they come to support their VSLAs.</p>
<b>VAKINANKARATRA / ANDRANOMANELATRA (Q3 FY22)</b>	<p>During community meetings, the need to build a kitchen and latrines was raised for the Basic Health Center Anosimboahangy.</p> <p><b>Result:</b> The Commune took the initiative to build kitchens and latrines by providing roofs and mobilizing local masons. The community provided the bricks.</p>
<b>VAKINANKARATRA / ANTANIFOTSY (Q3 FY22)</b>	<p>During community meetings, the population was informed about the Water Code and Human Rights to WASH in Tsarafara and Andohafarihy.</p> <p><b>Result:</b> The community is open to private water system management and the required water fees payment.</p>



Region / Municipality	Examples of Quick win from Accountability Mechanisms during FY22
<b>VAKINANKARATRA / SOANINDRARINY (Q2 FY22)</b>	<p>Following community requests during meetings and various feedback mechanisms, the Commune acted to improve access to water.</p> <p><b>Result:</b> The Commune rehabilitated the existing water system, which is now operational.</p>
<b>VATOVAVY &amp; FITOVINANY / MAHASOABE (Q1 FY22)</b>	<p>Following the monitoring of suggestion boxes, the community members complained about high rates of diarrhea.</p> <p><b>Result:</b> The local authorities, STEAH, SLC, WASH CSO, and local WASH committee conducted community visits to follow up on building latrines by households. The Commune is now ODF and increased the use of latrines.</p>
<b>VATOVAVY &amp; FITOVINANY / SAVANA (Q2 FY22)</b>	<p>Following the opening of suggestion boxes, the SLC conducted consultations to consider such feedback.</p> <p><b>Result:</b> STEAH's salary was prioritized, and he was paid as the leading agent for WASH behavior change in the Commune.</p>

Region / Municipalities	Examples of Communal WASH-CSOs Advocacy Success during FY22
<b>ALAO TRA MANGORO / AMBOAVORY (Q1 FY22)</b>	<p>The WASH CSO advocated the construction of a public toilet and a shower at the CSB.</p> <p><b>Result:</b> The Commune decided to build a public toilet and a shower at the CSB.</p>
<b>ALAO TRA MANGORO / AMBOAVORY (Q3 FY22)</b>	<p>WASH CSO advocated for glass protection by all cooked food sellers. The Commune supported the initiative by convening those who did not conform.</p> <p><b>Result:</b> All cooked food sellers in the Commune now use glass protection.</p>

Region / Municipalities	Examples of Communal WASH-CSOs Advocacy Success during FY22
<b>ALAOTRA MANGORO /            AMPASIKELY (Q3 FY22)</b>	<p>WASH CSO advocated the extension of the water system in the Commune.</p> <p><b>Result:</b> The Commune is now constructing ten tap stands to improve access to safe drinking water.</p>
<b>ALAOTRA MANGORO /            VOHIMENA (Q4 FY22)</b>	<p>The WASH CSO conducted advocacy for the construction of latrines at the Basic Health Center.</p> <p><b>Result:</b> The Commune decided to build latrines at the Basic Health Center.</p>
<b>AMORON'I MANIA /            AMBATOFITORAHANA (Q2 FY22)</b>	<p>WASH CSO advocated improving the toilet facility at the commune-level market.</p> <p><b>Result:</b> The Commune rehabilitated the latrine facility at the weekly market.</p>
<b>AMORON'I MANIA /            AMBOHIMAHAZO (Q4 FY22)</b>	<p>The WASH CSO advocated the need to rehabilitate the latrine at the Basic Health Centre of the Commune.</p> <p><b>Result:</b> The Commune decided to rehabilitate the latrine with the support of the local mason.</p>
<b>AMORON'I MANIA /            AMBOHIMAHAZO (Q4 FY22)</b>	<p>The WASH CSO advocated the need to increase the commune's WASH budget.</p> <p><b>Result:</b> The Commune decided to increase its WASH budget by 45% from 3 869 250 to 7 035 000 Ariary.</p>
<b>AMORON'I MANIA /            AMBOHIPIREVOANA (Q4 FY22)</b>	<p>The WASH CSO advocated the need to increase the commune's WASH budget.</p> <p><b>Result:</b> The Commune decided to increase its WASH budget by 100% from 3 500 000 Ariary to 7 000 000 Ariary.</p>

Region / Municipalities	Examples of Communal WASH-CSOs Advocacy Success during FY22
<b>AMORON'I MANIA / FIADANANA (Q1 FY22)</b>	<p>WASH CSO advocated with the mayor the rehabilitation of the existing water system. This led to consultation meetings between all stakeholders.</p> <p><b>Result:</b> One water system in the commune is now operational again, with all four tap stands operational.</p>
<b>AMORON'I MANIA / FIADANANA (Q3 FY22)</b>	<p>WASH CSO conducted advocacy to the Commune to take initiatives regarding the water source of the commune, which is unprotected and exposed.</p> <p><b>Result:</b> The Commune decided to plant trees and improve protection in the watershed of the source.</p>
<b>AMORON'I MANIA / ILAKA CENTRE (Q2 FY22)</b>	<p>WASH CSO conducted sensitization at the fokontany level, encouraged SLC to prioritize WASH activities, and advocated that the mayor takes initiatives regarding the water source of the commune, which is unprotected and exposed.</p> <p><b>Result:</b> The Commune decided to organize reforestation by planting 1,200 plants around the water source.</p>
<b>AMORON'I MANIA / IVATO CENTRE (Q3 FY22)</b>	<p>WASH CSO advocated the need to rehabilitate the Commune's gravity-fed water supply catchment facility.</p> <p><b>Result:</b> The Commune rehabilitated the catchment facility and managed to provide safe drinking water to 44 additional households through this initiative.</p>
<b>AMORON'I MANIA / MAROSOA (Q2 FY22)</b>	<p>WASH CSO advocated with the mayor and executives for inserting WASH lines in the Commune budget.</p> <p><b>Result:</b> The Commune allocated 5 million Ariary to its WASH budget line, which was inexistent in prior years.</p>

Region / Municipalities	Examples of Communal WASH-CSOs Advocacy Success during FY22
<b>ATSINANANA /            AMBALARONDRA (Q1            FY22)</b>	<p>Following periodic meetings as part of the accountability mechanisms and advocacy by the WASH CSO for the construction of water points in two fokontany.</p> <p><b>Result:</b> The Commune and chiefs of fokontany decided to join the force and collected beneficiary contributions for the construction of 2 water points in the Fokontany of Ambalafatakana and Ambatovelona in Amboditavolo Village.</p>
<b>ATSINANANA /            AMBODINONOKA (Q4            FY22)</b>	<p>WASH CSO advocated the need to clean the water wells periodically and claimed the Commune’s accountability by publishing their cleaning schedule.</p> <p><b>Result:</b> The Commune agreed to clean the wells twice monthly.</p>
<b>ATSINANANA /            ANIVORANO EST (Q2            FY22)</b>	<p>The WASH CSO was aware of the local situation and conducted advocacy to the Commune for the need to do something about waste management in the town.</p> <p><b>Result:</b> The WASH CSO teamed with the STEAH to set up jerrycans for dumpsters in each fokontany.</p>
<b>ATSINANANA /            MANJAKANDRIANA (Q2            FY22)</b>	<p>WASH CSO conducted advocacy for the mayor and his team on the importance of WASH.</p> <p><b>Result:</b> The Commune authorities are now committed to improving their WASH situation and are aware of its importance.</p>
<b>ATSINANANA /            MANJAKANDRIANA (Q3            FY22)</b>	<p>The WASH CSO conducted institutional triggering and pushed for adopting a “DINA” (rules).</p> <p><b>Result:</b> All 28 villages in the 12 fokontany are auto-declared as ODF since June 2022 but await verification.</p>
<b>ATSINANANA /            RANOMAFANA EST (Q3            FY22)</b>	<p>The WASH CSO advocated constructing a public latrine in the Fokontany of Antongombato as they are running out of space to build household latrines.</p>

Region / Municipalities	Examples of Communal WASH-CSOs Advocacy Success during FY22
	<p><b>Result:</b> The Commune built a public latrine in the Fokontany of Antongombato.</p>
<p><b>HAUTE MATSIATRA / ANDRAINJATO (Q4 FY22)</b></p>	<p>The WASH CSO conducted advocacy for the need to build water infrastructure.</p> <p><b>Result:</b> The Commune was highly interested in selling its potential to the private sector and managed to secure the commitment of the private sector to invest in the Commune. The Commune then received 168 connections, including 142 private and 26 social connections.</p>
<p><b>HAUTE MATSIATRA / MANEVA (Q3 FY22)</b></p>	<p>The WASH CSO conducted advocacy to the VSLA to rehabilitate latrines following the cyclones.</p> <p><b>Result:</b> The VSLA worked on rehabilitating these facilities post-cyclone.</p>
<p><b>HAUTE MATSIATRA / NAMOLY (Q2 FY22)</b></p>	<p>Following WASH CSO advocacy, the Commune decided to take action to increase its WASH budget and invest in WASH infrastructure.</p> <p><b>Result:</b> Commune WASH budget increased from 11,850,000 in 2021 to 15,000,000 Ariary in 2022; Commune decided to build a commune-level market facility with a toilet and shower compartment along with a dug dumpster at 60%.</p>
<p><b>VAKINANKARATRA / ANDRANOMANELATRA (Q2 FY22)</b></p>	<p>The WASH CSO organized a reforestation initiative and requested land and young plants from the Commune.</p> <p><b>Result:</b> The Commune mobilized the SOCOTA Group to donate young plants and offered to transport them to the reforestation site. The WASH CSO completed the reforestation initiative.</p>

Region / Municipalities	Examples of Communal WASH-CSOs Advocacy Success during FY22
<b>VAKINANKARATRA /            MANOHISOA (Q1 FY22)</b>	<p>WASH CSO and SLC advocated constructing latrines at the CSB in Tsarahasina with the Commune.</p> <p><b>Result:</b> The Commune decided to build a two-compartment sanitary block, of which one is a toilet and one shower.</p>
<b>VAKINANKARATRA/            ANDRANOMANELATRA (Q3 FY22)</b>	<p>The WASH CSO advocated constructing a public latrine in the town center with the Commune.</p> <p><b>Result:</b> The Commune paid 50,000 ariary to finish the construction of a public latrine and contracted with associations to manage the latrine. The Commune became ODF.</p>
<b>VAKINANKARATRA/            MANDRITSARA (Q3 FY22)</b>	<p>The WASH CSO conducted advocacy to local authorities and sensitized the communities to end open defecation.</p> <p><b>Result:</b> The community is now convinced of the need to end open defecation and is increasingly using latrines.</p>
<b>VATOVAVY FITOVINANY /            AMBANDRIKA (Q2 FY22)</b>	<p>The WASH CSO conducted institutional triggering to end open defecation.</p> <p><b>Result:</b> Households are increasingly using latrines.</p>
<b>VATOVAVY FITOVINANY /            ANDEMAKA (Q3 FY22)</b>	<p>The WASH CSO advocated the need to pay the salary of the STEAH, which was discussed by the SLC and was proposed to the Commune.</p> <p><b>Result:</b> The STEAH was paid his salary during the three months of this quarter (April, May, and June 2022)</p>
<b>VATOVAVY FITOVINANY /            MITANTY (Q2 FY22)</b>	<p>The WASH CSO conducted advocacy to local authorities and sensitized the communities to end open defecation.</p> <p><b>Result:</b> The community is now convinced of the need to end open defecation and is increasingly using latrines.</p>

Region / Municipalities	Examples of Communal WASH-CSOs Advocacy Success during FY22
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The WASH CSO conducted advocacy to the Commune to no longer delay the primary budgeting process.

**VATOVAVY FITOVINANY / SAVANA (Q2 FY22)**

**Result:** The Commune budgeted on time, which allowed for the salary payment for the STEAH as the initiator of behavior change in the Commune.

Region / Municipalities	Examples of Success from the dialogue within SLC (local structure of dialogue) during FY22
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The Local Consultation Structure (SLC) determined the need to construct water supply infrastructure.

**ALAOTRA MANGORO / AMBOASARY GARA (Q2 FY22)**

**Result:** A commune-level decree was passed to construct water supply infrastructure and launch fundraising for such facilities.

**ALAOTRA MANGORO / AMPARAFARAVOLA (Q3 FY22)**

The SLC consulted to discuss the priority needs of the Commune, which does not have any dumpsters in the town center.

**Result:** the mayor decided to set up four dumpsters at four strategic locations in the town.

**ALAOTRA MANGORO / MORARANO CHROME (Q3 FY22)**

The Local Consultation Structure (SLC) consulted to find solutions to the waste management issues of the Commune.

**Result:** The mayor led an initiative to seek partnerships to improve the Commune's waste management. Local development funds, therefore, financed fifteen dumpsters.

**ALAOTRA MANGORO / SAHAMAMY (Q4 FY22)**

During the consultation meeting, the SLC determined the need to rehabilitate a bridge.

**Result:** The Commune prioritized the rehabilitation of a bridge located in the Fokontany of Ambondroala

Region / Municipalities	Examples of Success from the dialogue within SLC (local structure of dialogue) during FY22
<b>ALAOTRA MANGORO / VOHIMENA (Q1 FY22)</b>	<p>The SLC determined the need to build a Public Primary School and a latrine to be used by students at this school. They met with all relevant stakeholders, including the traditional leaders, the STEAH, local masons, and the communities.</p> <p><b>Result:</b> Construction of a Public Primary School in the Fokontany of Ambodisakoana, Antetezanambo Village, with a 2-compartment latrine.</p>
<b>AMORON'I MANIA / AMBATOFITORAHANA (Q4 FY22)</b>	<p>SLC consultations identified the need to build a public toilet at the market.</p> <p><b>Result:</b> The Commune decided to build a public toilet at the market with partial material support from RANO WASH.</p>
<b>AMORON'I MANIA / ANKARINORO (Q2 FY22)</b>	<p>Following the SLC consultation meeting, concern has emerged about the open defecation prevailing in the villages.</p> <p><b>Result:</b> All local actors, including commune authorities, STEAH, and the local WASH committee, sensitized the communities to construct sanitary latrines, which are now used by 40% of the population.</p>
<b>AMORON'I MANIA / ILAKA CENTRE (Q2 FY22)</b>	<p>Following advocacy by the WASH CSO, the SLC prioritized WASH activities.</p> <p><b>Result:</b> Planting of 1,200 plants around the water source of the Commune.</p>
<b>AMORON'I MANIA / ILAKA CENTRE (Q2 FY22)</b>	<p>Following advocacy by the WASH CSO, the SLC prioritized WASH initiatives.</p> <p><b>Result:</b> Rehabilitation of the latrine facilities at the weekly marketplace.</p>
<b>ATSINANANA / AMBODIVOANANTO (Q3 FY22)</b>	<p>Following SLC consultations, the situation of the STEAH needed to be resolved as he was unpaid and did not have an employment contract.</p>



Region / Municipalities	Examples of Success from the dialogue within SLC (local structure of dialogue) during FY22
	<p><b>Result:</b> The SLC proposed a salary and contract for the STEAH, which was deliberated by the municipal council.</p>
<p><b>ATSINANANA / NIHERENANA (Q3 FY22)</b></p>	<p>The mayor and the local structures sent a letter to the DREAH requesting a meeting between the water manager, the Commune, and the water users to solve the frequent water cut and the disagreement about invoices.</p> <p><b>Result:</b> No more water cuts and users are now using the system while they were reluctant.</p>
<p><b>ATSINANANA / SAHAMATEVINA (Q3 FY22)</b></p>	<p>Following the SLC consultation meeting, a solution had to be found to end open defecation in the Commune.</p> <p><b>Result:</b> A “DINA” (rules) was decided by the SLC, was deliberated by the municipal council, and is now applied.</p>
<p><b>ATSINANANA / TSIVANGIANA (Q4 FY22)</b></p>	<p>The SLC identified the need to prioritize WASH in the Commune and to reach ODF status.</p> <p><b>Result:</b> The local authorities realized that WASH is one of the foundations for development in the Commune and supported the committee in following up on ODF status in each Fokontany. The Commune is now certified ODF, and one school declared WASH-friendly.</p>
<p><b>HAUTE MATSIATRA / ANDRANOMIDITRA (Q3 FY22)</b></p>	<p>The SLC conducted consultations with the landowners to construct all WASH facilities in the Commune.</p> <p><b>Result:</b> All land donation deeds are completed to construct WASH facilities.</p>
<p><b>HAUTE MATSIATRA / ANKAROMALAZA MIFANASOA (Q2 FY22)</b></p>	<p>WASH is now prioritized following various SLC consultations.</p> <p><b>Result:</b> A WASH budget was established at 4,236,000 Ariary, against a total budget of 112,667,300 Ariary (4%).</p>

Region / Municipalities	Examples of Success from the dialogue within SLC (local structure of dialogue) during FY22
<b>HAUTE MATSIATRA / BESOA (Q2 FY22)</b>	<p>The SLC deemed it necessary to meet and discuss the impacts of the two cyclones (Batsirai and Emnati) that hit the region during the quarter.</p> <p><b>Result:</b> the SLC met to report the two cyclones’ impacts and find solutions to help the population recover.</p>
<b>HAUTE MATSIATRA / KIRANO (Q3 FY22)</b>	<p>The SLC conducted consultations and proposed that the development of the commune budget should be monitored and supported.</p> <p><b>Result:</b> The Commune WASH budget increased from 7 million in FY21 to 10 million Ariary in FY22.</p>
<b>HAUTE MATSIATRA / SENDRISOA (Q1 FY22)</b>	<p>The SLC advocated with the Commune the need to increase the WASH budget and proper use.</p> <p><b>Result:</b> The Commune WASH budget has doubled from 2 250 000 MGA in 2021 to 4 787 000 MGA in 2022.</p>
<b>VAKINANKARATRA / ALAKAMISY ANATIVATO (Q3 FY22)</b>	<p>SLC consulted with the NATURANO Enterprise on the delegation management of water supply infrastructure in the Commune.</p> <p><b>Result:</b> SLC members are convinced about PPP and reached out to current water point managers to inform and convince them about the change to private management.</p>
<b>VAKINANKARATRA / AMBATOMENA (Q3 FY22)</b>	<p>The SLC consultation meeting in April prioritized the use of funds obtained from the fair organized by the Commune.</p> <p><b>Result:</b> The Commune prioritized the construction of the market and a latrine at this market to use this fund.</p>
<b>VAKINANKARATRA / MANOHISOA (Q1 FY22)</b>	<p>SLC advocated the rehabilitation of the Handpump at the Public Primary School.</p> <p><b>Result:</b> Successful advocacy as the rehabilitation of the handpump is currently ongoing.</p>

Region / Municipalities	Examples of Success from the dialogue within SLC (local structure of dialogue) during FY22
<b>VATOVAVY            FITOVINANY /            ANOLOKA (Q2 FY22)</b>	<p>Following the two cyclones that hit the Commune, the SLC conducted consultations by organizing community meetings.</p> <p><b>Result:</b> The Commune decided to rehabilitate a few water points as a priority emerging from these consultations.</p>
<b>VATOVAVY            FITOVINANY /            ANOROMBATO (Q2 FY22)</b>	<p>Following SLC consultations, WASH needs to be prioritized in the Commune.</p> <p><b>Result:</b> The SLC teamed with the WASH CSO to conduct institutional triggering and sensitize the communities in the villages, which resulted in mindset/behavior change regarding WASH.</p>
<b>VATOVAVY            FITOVINANY / SAVANA            (Q2 FY22)</b>	<p>Following advocacy by the WASH CSO and the opening of suggestion boxes, the SLC conducted consultations to consider such feedback.</p> <p><b>Result:</b> STEAH's salary was prioritized, and he was paid as the leading agent for WASH behavior change in the Commune.</p>
<b>VATOVAVY            FITOVINANY/            ANTARETRA (Q1 FY22)</b>	<p>Following the SLC consultation meeting, concern has emerged about water resources drying, and the SLC has communicated this concern to the Commune.</p> <p><b>Result:</b> In collaboration with the ASUREP, the Commune decided to take initiatives to protect the water sources.</p>

Regions / Municipalities	Examples of Quick Win by the Commune team during FY22
<b>ALAOTRA MANGORO / ANOSIBE IFODY (Q4 FY22)</b>	Following RANO WASH support to the STEAH, the latter has managed to render ODF 2 villages.
<b>AMORON'I MANIA / AMBOHIMAHAZO (Q3 FY22)</b>	<p>While monitoring the water supply of the Commune, the STEAH discovered a damaged tap, preventing water distribution to the fokontany of Ambohimahazo.</p> <p><b>Result:</b> The STEAH repaired the tap, which enabled the distribution of safe drinking water to 141 households in this Fokontany.</p>
<b>AMORON'I MANIA / AMBOHIMILANJA (Q4 FY22)</b>	<p>Following RANO WASH support, the Commune sought partners to construct wells fitted with handpumps in the Fokontany and at the Basic Health Center.</p> <p><b>Result:</b> The Commune secured a partnership to construct wells fitted with handpumps, and now the Basic Health Center and communities have safe water.</p>
<b>AMORON'I MANIA / AMBOSITRA 2 (Q2 FY22)</b>	<p>Following the conflict of water usage in two fokontany due to the damage to the water divider device, the STEAH met with the water user association to find a solution.</p> <p><b>Result:</b> The water user association proposed the rehabilitation of the water divider device, the mayor provided the cement for construction, and the STEAH repaired the device.</p>
<b>AMORON'I MANIA / ANKAZOAMBO (Q2 FY22)</b>	<p>Due to the bad quality of the water and the lack of maintenance to the water facility, the Commune requested the support of JIRAMA / DREAH to improve the situation.</p> <p><b>Result:</b> DREAH supported the Commune in cleaning up the water tank in the Fokontany of Anasana, thereby improving distributed water quality.</p>
<b>AMORON'I MANIA/ IVATO CENTRE (Q1 FY22)</b>	<p>The mayor provided lands for several households along National Road #7 to construct latrines.</p> <p><b>Result:</b> The Commune was declared ODF as these households' access prevented this declaration.</p>

Regions / Municipalities	Examples of Quick Win by the Commune team during FY22
<b>ATSINANANA /            AMBALAVOLO (Q4 FY22)</b>	<p>Neighboring RANO WASH intervention Communes have influenced the Commune of Ambalavolo to follow in their footsteps of becoming ODF.</p> <p><b>Result:</b> The Commune decided to conduct mass sensitization and Follow Up Mandona and is now self-declared as ODF.</p>
<b>ATSINANANA /            AMBINANINONY (Q3 FY22)</b>	<p>The STEAH supported the local masons in marketing their products.</p> <p><b>Result:</b> An increase in the number of sanplat slabs sold has been recorded.</p>
<b>ATSINANANA /            AMPASIMAZAVA (Q1 FY22)</b>	<p>The Commune decided to build a wastewater drainage canal and a sump as part of the commune-level wastewater management.</p>
<b>ATSINANANA /            ANTSAMPANANA (Q3 FY22)</b>	<p>Following taxation training, the Commune started to follow its tax mobilization plan.</p> <p><b>Result:</b> The Commune starts properly registering their tax income and expenses, leading to better local governance at the commune level.</p>
<b>ATSINANANA /            IAMBORANO (Q3 FY22)</b>	<p>The STEAH led many activities, such as group visits to the communities, discussions with village leaders, and community meetings.</p> <p><b>Result:</b> The villages are now cleaner, each household is building a latrine, and a public latrine is built.</p>
<b>ATSINANANA /            NIHERENANA (Q4 FY22)</b>	<p>The Commune conducted mass sensitization and Follow-Up Mandona.</p> <p><b>Result:</b> The population made efforts, and the Commune is now ODF.</p>
<b>ATSINANANA /            TSARAVINANY (Q3 FY22)</b>	<p>As the people used to drink dirty water, the Commune decided to search for a partnership to build a gravity-fed water supply system.</p> <p><b>Result:</b> Commune was building a gravity-fed water system equipped with nine tap stands.</p>

Regions / Municipalities	Examples of Quick Win by the Commune team during FY22
<b>ATSINANANA/  AMBODITAVOLO (Q3  FY22)</b>	<p>A few executives of the Commune consulted and determined the need to deal with the use of dirty water for drinking by the local population.</p> <p><b>Result:</b> The Commune decided to use part of its WASH budget to build some wells in some of the Fokontany, which supply safe drinking water.</p>
<b>HAUTE MATSIATRA /  AMBOHIMANDROSO (Q2  FY22)</b>	<p>Following various governance support provided by RANOWASH to the commune-level authorities, the Commune was aware of its potential and decided to take action to change its WASH and development situation.</p> <p><b>Result:</b> Planting of 2,800 young plants in Antsahanampela and Andohovolo; Increase of WASH budget from 4 million to 10 million Ariary; Census of all taxpayers and assets subject to taxations; Rehabilitation of roads in all fokontany; Posting of various tariffs/rates to ensure accountability; 21 VSLA groups created; and Commune contracted with a private sector (local mason and seamstress) for WASH products.</p>
<b>HAUTE MATSIATRA /  ANDRAINJATO (Q1, Q2,  Q3 AND Q4 FY22)</b>	<p>Following various governance support provided by RANOWASH to the commune-level authorities, the Commune was aware of its potential and decided to take action to change its WASH and development situation.</p> <p><b>Result:</b> Commune is certified ODF; WASH budget increased from 7,745,800 in 2021 to 16,160,000 Ariary; STEAH salary increased from 60,000 to 200,000 Ariary; SLC is conducting consultations; Creation of 36 VSLA groups in 5 Fokontany; Planting of 6,809 young plants in the watershed of the Commune, and Commune contracted with a private sector (local mason and seamstress) for WASH products.</p>
<b>HAUTE MATSIATRA /  ANDRAINJATO (Q3 FY22)</b>	<p>Following RANOWASH support, the Commune collaborated with the private manager to rehabilitate the existing water supply system.</p> <p><b>Result:</b> This rehabilitation benefitted 789 users through 18 social connections, 116 private connections, and six institutions.</p>

Regions / Municipalities	Examples of Quick Win by the Commune team during FY22
<b>HAUTE MATSIATRA /            ANDRANOMIDITRA (Q4            FY22)</b>	<p>RANO WASH supported the Commune in collecting taxes.</p> <p><b>Result:</b> The Commune collected 1 393 793 Ariary in taxes during Q4 FY22, while it was very low in prior years.</p>
<b>HAUTE MATSIATRA /            ANDRANOVORIVATO            (Q4 FY22)</b>	<p>The Commune, based on the STEFI report, requested the payment of water royalties from water managers.</p> <p><b>Result:</b> The water managers paid 2 800 000 for the extension of the water network in the village of Ambalambony.</p>
<b>HAUTE MATSIATRA /            KIRANO (Q3 FY22)</b>	<p>The Commune decided to take the initiative to protect its source in collaboration with the local structures, WASH CSO, and SLC.</p> <p><b>Result:</b> The Commune planted 5,280 trees around the three water sources to improve the watershed. It also passed a commune order to protect the watershed, which the District validated.</p>
<b>HAUTE MATSIATRA /            MANAMISOA (Q2 FY22)</b>	<p>Following RANOWASH's governance support, the Commune decided to take action to increase its WASH budget.</p> <p><b>Result:</b> Commune WASH budget doubled from 2 million in 2021 to 4 million Ariary in 2022.</p>
<b>HAUTE MATSIATRA /            MANAMISOA (Q3 FY22)</b>	<p>The Commune conducted community visits to conduct triggering.</p> <p><b>Result:</b> The number of latrine users increased – 932 households composed of 5,367 people for limited latrines and 230 households composed of 1,196 people for basic latrines.</p>
<b>HAUTE MATSIATRA /            MANAMISOA (Q4 FY22)</b>	<p>Following RANO WASH support and training, the Commune deployed significant efforts to become ODF.</p> <p><b>Result:</b> The Commune managed to spend 8 965 000 Ariary to celebrate its ODF status and to highlight all the existing structures that helped reach such status.</p>
<b>HAUTE MATSIATRA /            MANEVA (Q1 FY22)</b>	<p>The STEAH decided to request RANOWASH support for the setting up VSLAs in the Commune.</p>

Regions / Municipalities	Examples of Quick Win by the Commune team during FY22
	<p><b>Result:</b> With RANOWASH’s support, the STEAH contributed to creating 40 VSLA groups in the Commune and supported their regular meetings.</p>
<p><b>HAUTE MATSIATRA / SENDRISOA (Q2 FY22)</b></p>	<p>Following RANOWASH governance support, the Commune decided to take action to increase its WASH budget and continues to engage with private actors.</p> <p><b>Result:</b> Commune WASH budget increased from 2,250,000 in 2021 to 7,312,000 Ariary in 2022; Commune is discussing with various enterprises following its participation in the Water Forum, including enterprise MIARINA SOA, FITAHIANISOA, ATTR ALAIN, Enterprise Stanislas.</p>
<p><b>HAUTE MATSIATRA / SENDRISOA (Q4 FY22)</b></p>	<p>During the kick-off meeting of water supply infrastructure construction, the Commune developed an action plan for all stakeholders.</p> <p><b>Result:</b> All canals where pipes are buried will be cleaned every month. A “Dina” (Rules) specific to water has been established to protect the water infrastructure and ensure everyone’s access to safe drinking water.</p>
<p><b>HAUTE MATSIATRA / VINANINORO ANDREFANA (Q2 FY22)</b></p>	<p>Following RANOWASH’s governance support, the Commune decided to take action to increase its WASH budget and protect its watershed.</p> <p><b>Result:</b> Commune WASH budget increased to 6,300,000 Ariary, and the Commune planted 88,176 young plants to protect its watershed and improved its fire protection around the area.</p>
<p><b>HAUTE MATSIATRA / VINANINORO ANDREFANA (Q4 FY22)</b></p>	<p>The Commune searched for partnerships to build water facilities and conducted sensitization to construct wells.</p> <p><b>Result:</b> 2 wells with handpumps and six traditional wells were built in the commune in 6 villages, and another is under construction in Isorananina.</p>
<p><b>HAUTE MATSIATRA KIRANO (Q2 FY22)</b></p>	<p>Following various governance support provided by RANOWASH, the Commune decided to take action to change its WASH and development situation.</p>



Regions / Municipalities

Examples of Quick Win by the Commune team during  
FY22

**Result:** The Commune decided to hire a young STEAH agent to ensure the sustainability of the services; Completion of the commune's 2022 primary budget at 95,728,900 Ariary, of which 10 million (10%) is allocated to WASH; and Planting of 1,900 young plants around three different sources (IALATSARA, TSIAZONANBOHO, and BELALERY).

Following various governance support provided by RANOWASH to the commune-level authorities, the Commune was aware of its potential and decided to take action to change its WASH and development situation.

**HAUTE MATSIATRA/  
BESOA (Q2 FY22)**

**Result:** Completion of the commune's 2022 primary budget at 433,989,000 Ariary, of which 50 million (11%) is allocated to WASH; Reforestation initiative to protect the watershed; Submission of a small project proposal to the German Embassy for the construction of water supply infrastructure from the Velontsoa Source.

**VAKINANKARATRA /  
AMBOHIMANAMBOLA  
(Q2 FY22)**

Following RANOWASH's support, the Commune decided to take the initiative to protect the watershed of the water source.

**Result:** The Commune organized reforestation around the water source in Vorombola.

**VAKINANKARATRA /  
MANAPA (Q3 FY22)**

The Commune celebrated its ODF status in June 2022.

**Result:** The Commune spent 630 000 Ariary to construct a standing stone to mark the celebration and 1 000 000 Ariary for other related expenses.

**VATOVAVY  
FITOVINANY /  
AMBOTAKA (Q1 FY22)**

Following the "Communes Madio" contest launch, the Commune and STEAH decided to conduct an institutional triggering at the CSBII of Ambotaka to ensure cleanliness within and around this facility.

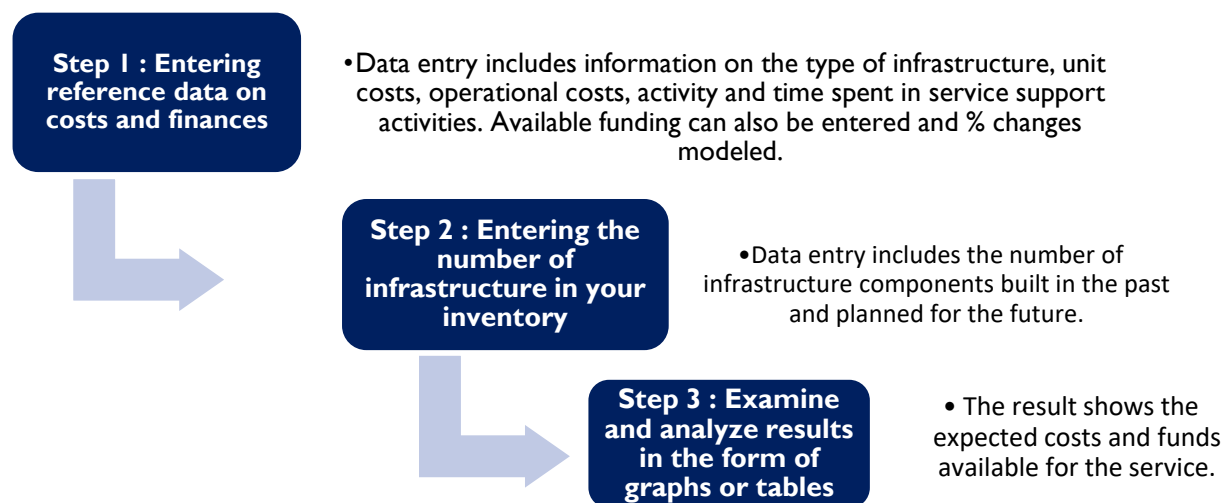
**Result:** The institution decided to build 2 latrines and set up two trash dumpsters at the CSBII.

## ANNEX 20. LIFE CYCLE COST AND RESULTS

### Life Cycle Cost Calculator

It is an Excel document specifically developed to facilitate life cycle costing of water infrastructure, particularly for valuation of multiple assets/heritages (e.g., for LCC at the Commune, district, or region level that will inform relevant investment plans). The model makes it possible to estimate the life cycle cost for any service and infrastructure and includes estimates of CAPEX, CapManEx, OPEX, and Direct support.

#### How does the tool work?

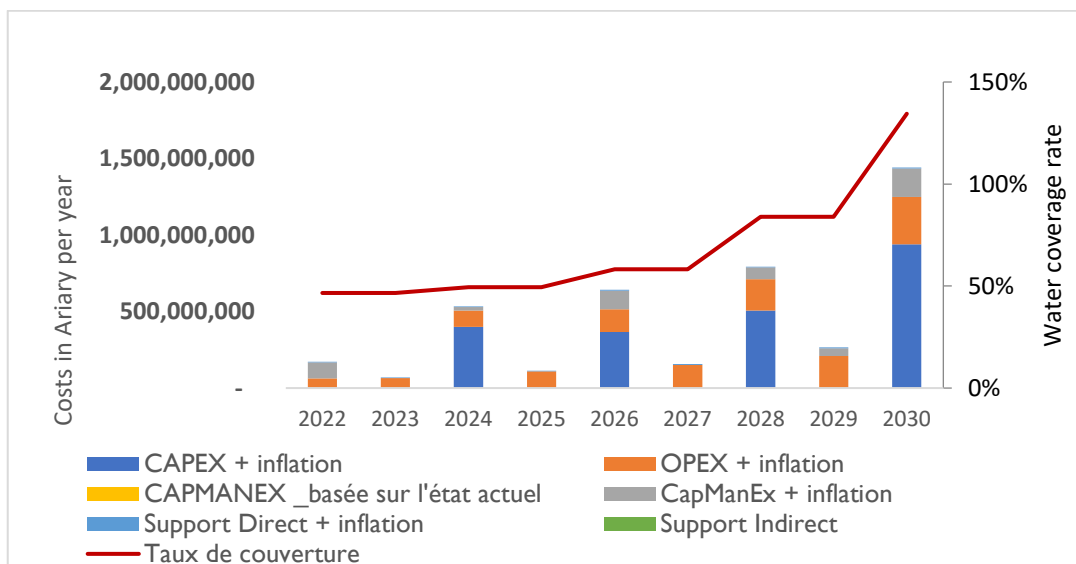


### A Life Cycle Cost Workgroup Constituted at the MEAH

A workgroup composed of 9 agents was constituted at the Ministry of WASH to experiment with the implementation of LCC to support communes in planning access to safe drinking water. This workgroup conducted a test in 7 pilot communes, and the model has been improved to adapt to the real needs identified in the field.

## Case # I: Commune of Ambatomarina, Amoron'i Mania Region

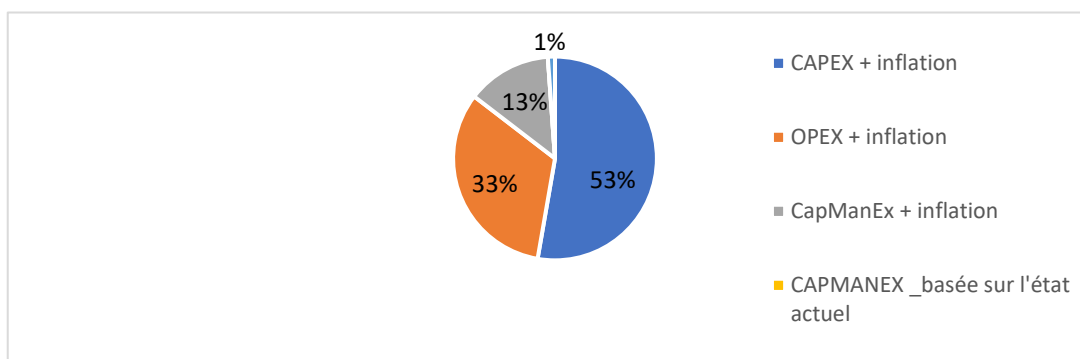
### Estimated costs for construction and sustainability of drinking water services



This graph shows the projection of coverage rates in the Commune to achieve universal access to water services **by 2030**.

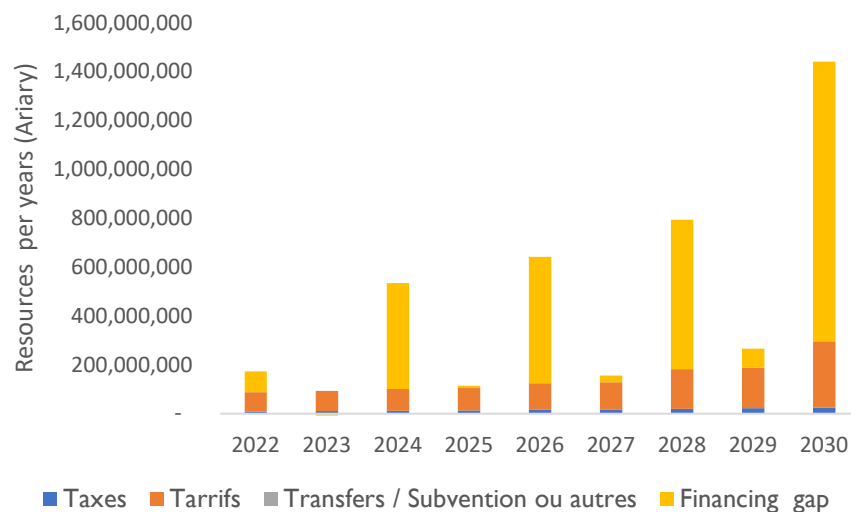
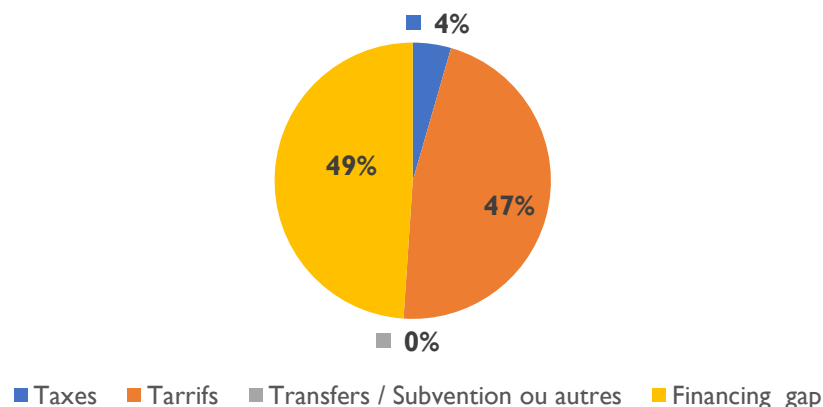
The municipality **needs 4 billion Ariary over the next 9 years** and distributed according to the second graph, including:

- ✓ 2.2 billion Ariary in construction of new infrastructure (CAPEX),
- ✓ 1.3 billion Ariary for operations and maintenance (OPEX),
- ✓ 563 million Ariary for major maintenance (CAPMANEX),
- ✓ And 47 million Ariary for direct support.



## Planned financing to cover costs for construction and sustainability of water services

Projected resources



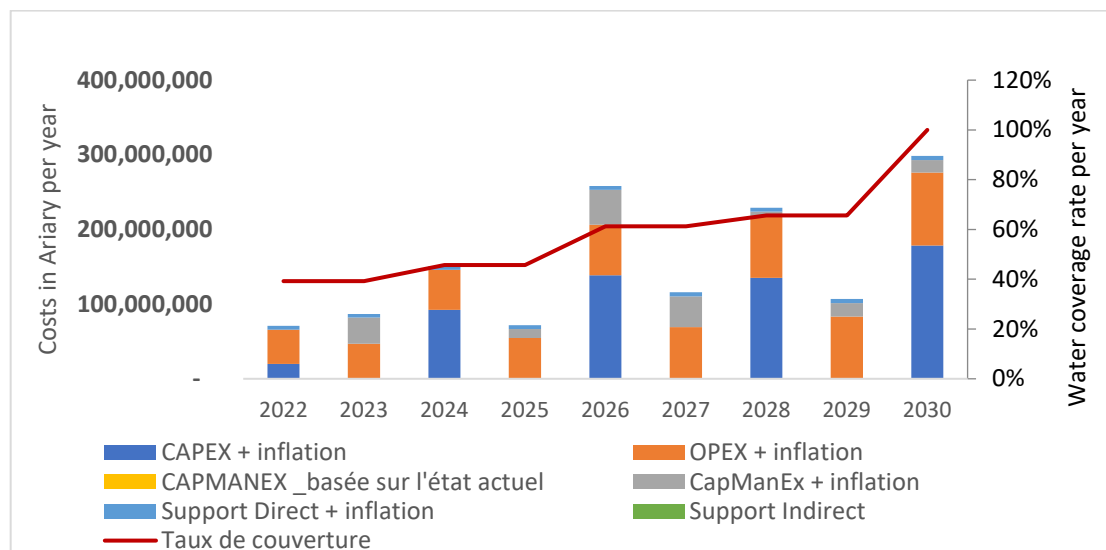
According to this forecast, **revenues from water tariffs will cover 31% of financing needs** and will not be able to cover all the costs of operations and maintenance.

According to the Commune's projection based on this model, the mobilization of local resources and contributions from central government will only cover 4% of these needs. The municipality has not yet identified partners who can support them in mobilizing additional resources. Thus, **65% of funding gaps** still need to be secured. The Commune is advised to strengthen analysis on how to cover the funding gap:

- ✓ Revision of their pricing policies, identification of strategy for improving recovery rates, or even the revision of the types of management and services to be made available while identifying the costs to be covered by these revenues, etc.
- ✓ Although efforts made by the Commune have to be valorized within this study like (1) the mobilization of local resources, (2) the increase of the WASH component of its municipal budget, (3) the mobilization of the private sector to finance water service extensions
- ✓ Efforts are still needed to improve both internal and external resource mobilization strategies.

## Case # 2 : commune of Andemaka, Vatovavy Fitovinany Region

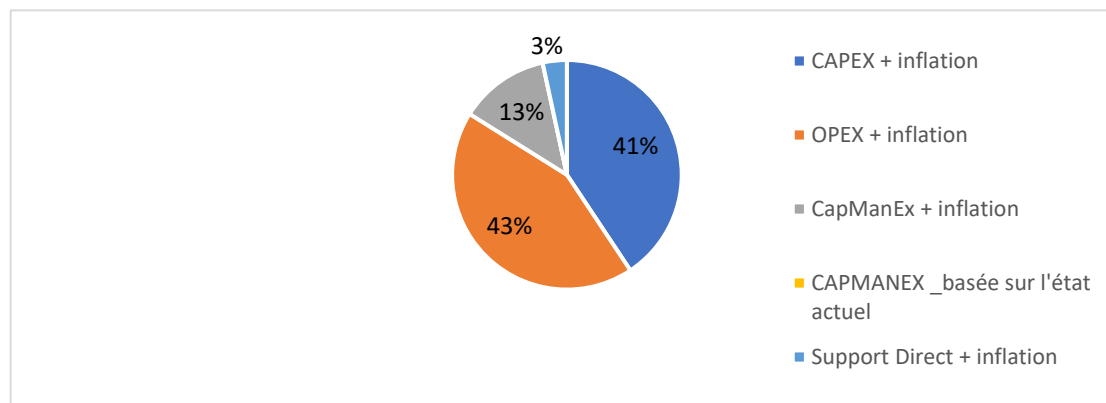
### Estimated costs for extension and sustainability of drinking water services



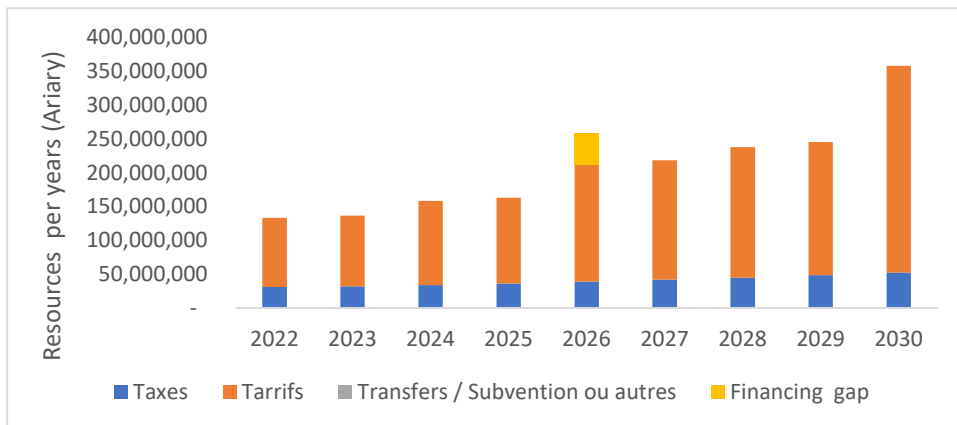
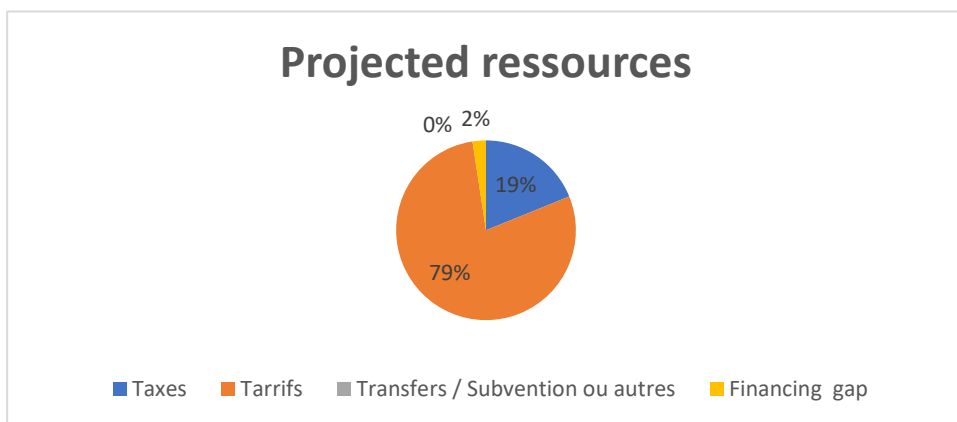
This graph shows the projection of coverage rates in the Commune to achieve universal access to water services **by 2030**.

The municipality needs **1.4 billion Ariary over the next 9 years** and distributed according to the second graph, including:

- ✓ 563 million Ariary in construction of new infrastructure (CAPEX),
- ✓ 600 million Ariary for operations and maintenance (OPEX),
- ✓ 176 million Ariary for major maintenance (CAPMANEX),
- ✓ And 47 million Ariary for direct support.



## Planned resources to cover the costs for construction and sustainability of drinking water services



According to this forecast, **revenues from water tariffs will cover 79% of financing needs**, including operations and maintenance costs and major maintenance.

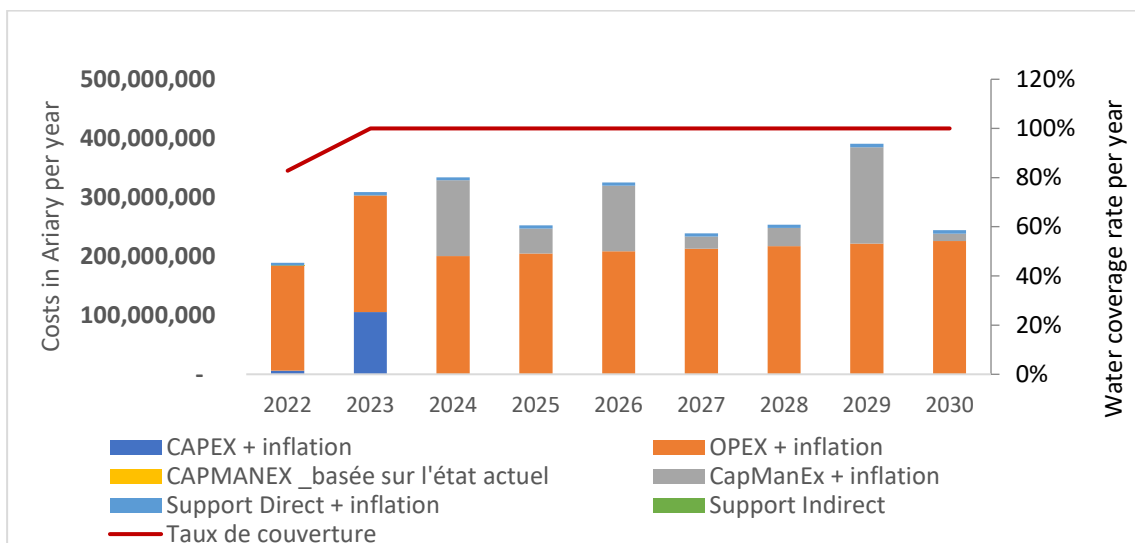
The Commune has a planned **fairly high WASH budget and contribution from the central government**, which totals **19%** of expenses and costs, and plans to have more subsidies from the government.

The Commune is advised to:

- ✓ Spread out its costs better as during some years it has some funding excess.
- ✓ To review the models for the estimated costs of maintenance and operation by a private operator of the water supply service, which is the case of the municipality currently. The current manager's business plan should be considered within this tool.

### Case # 3 : commune of Anosibe Ifody, Alaotra Mangoro Region

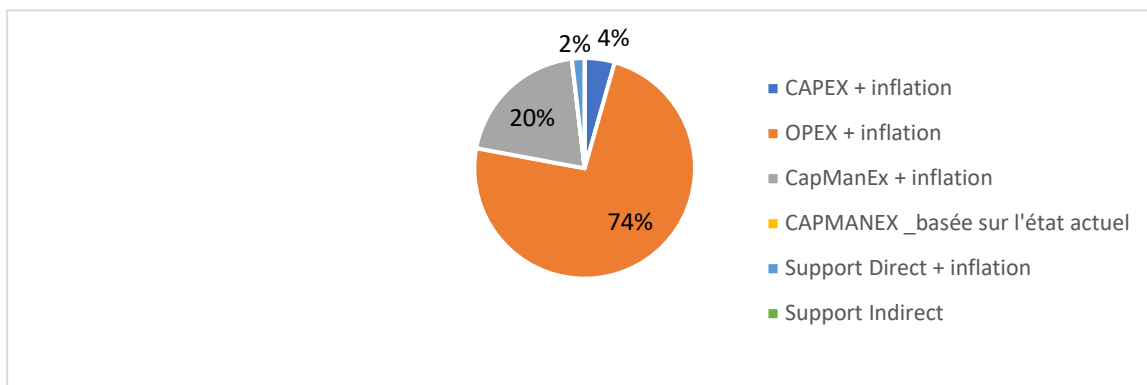
#### Estimated costs for construction and sustainability of drinking water services



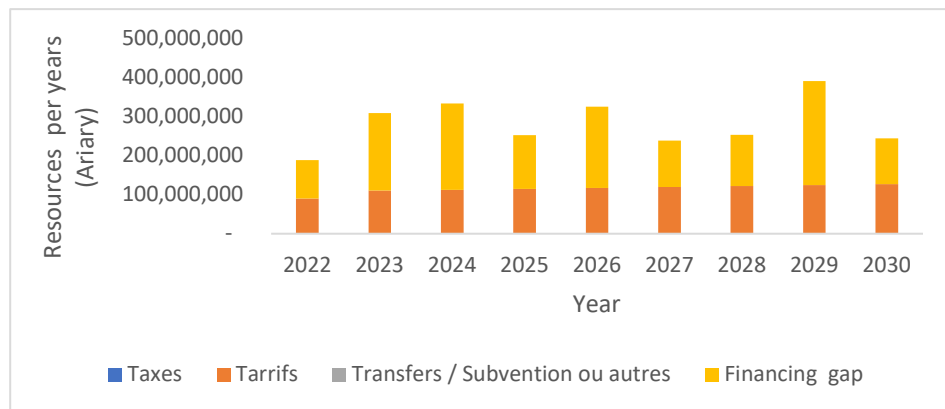
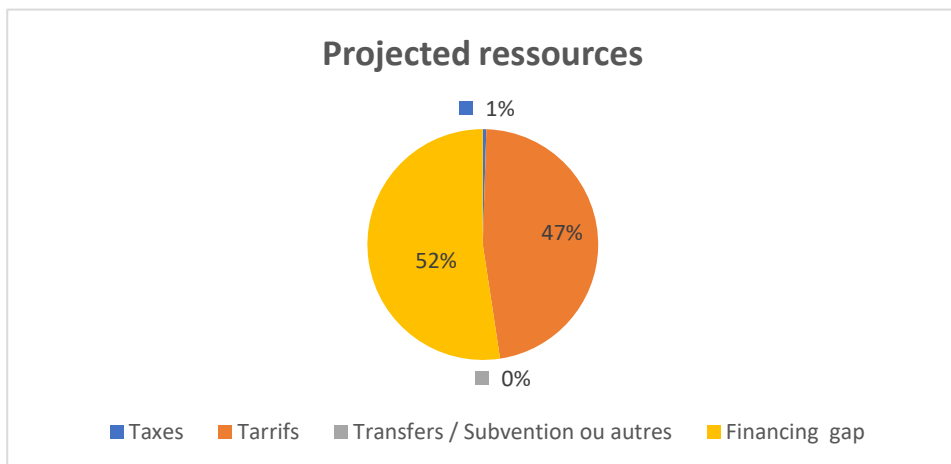
The municipality plans to achieve **universal access in 2023** following investment to construct a drinking water supply system (CAPEX).

Nevertheless, over the next **9 years, the Commune will need 2.5 billion Ariary** to achieve and maintain universal access, including

- ✓ 111 million Ariary in construction of new infrastructure (CAPEX),
- ✓ 1.8 billion Ariary for operations and maintenance (OPEX), which makes up 74% of its total expenditure as it already has high coverage by 2023,
- ✓ 512 million Ariary for major maintenance (CAPMANEX),
- ✓ And 47 million Ariary for direct support



## Planned resources to cover the costs for the construction and sustainability of drinking water services



The projection of income from **water tariffs, which compose 47% of resources planned**, will not be able to cover all operations and maintenance of existing services.

According to the data within this model, **Internal contribution to financing is too low at only 1%** of all expenses. The Commune has a **significant financing gap** but does not foresee any contribution through its WASH budget.

The Commune's effort in discussing with a private water manager/investor to contribute to the extension of service has to be valorized in this model.

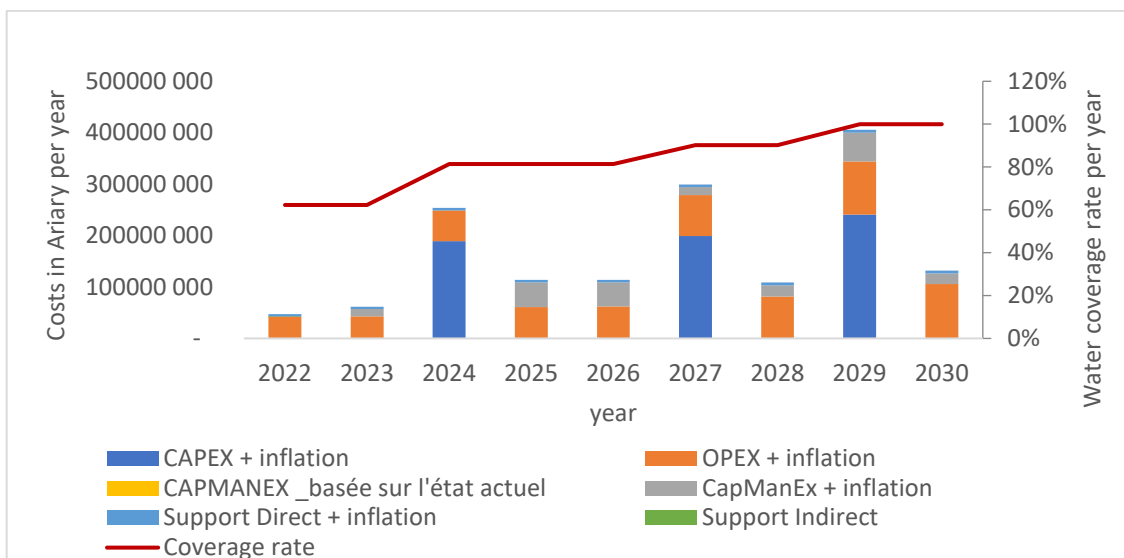
The Commune is advised to:

- ✓ Strengthen internal and external fund mobilization to ensure that OPEX and CAPMANEX are covered.
- ✓ To review the models for the estimated costs of maintenance and operation by a private operator of the water supply service, which is the case of the municipality currently. The business plan of the current manager should be highlighted the data used for this tool



## Case # 4: Commune of Antsoatany, Vakinankaratra Region

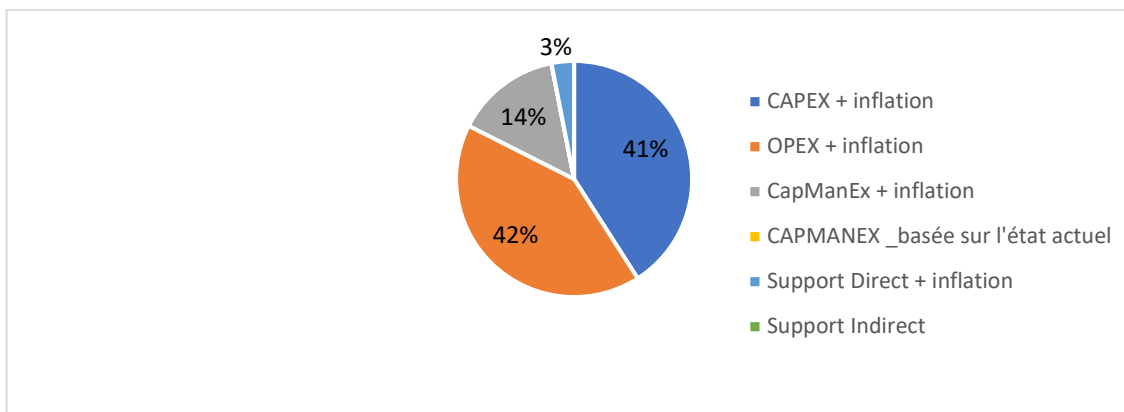
### Estimated costs for the construction and sustainability of drinking water services



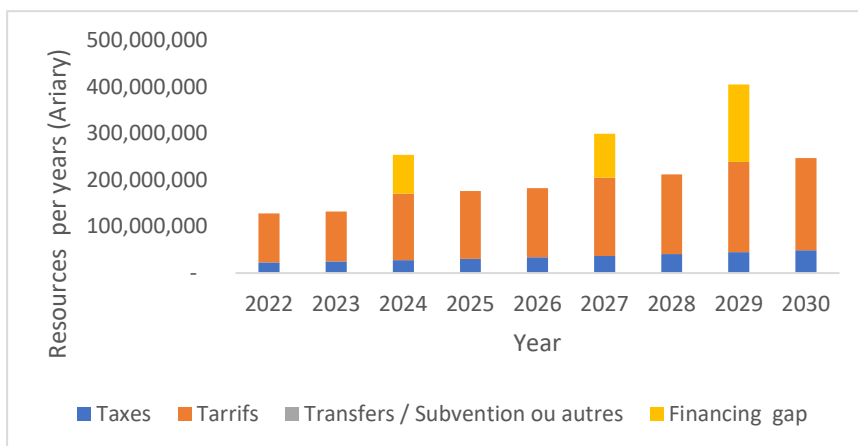
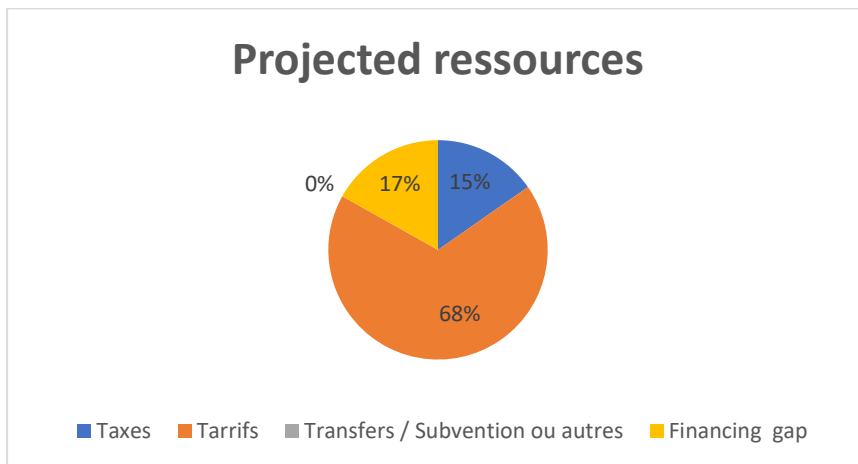
This graph shows the projection of coverage rates in the Commune to achieve **universal access by 2029**.

The municipality needs **1.5 billion Ariary over the next 9 years** and distributed according to the second graph, including:

- ✓ 629 million Ariary in construction of new infrastructure (CAPEX),
- ✓ 637 million Ariary for operations and maintenance (OPEX),
- ✓ 222 million Ariary for major maintenance (CAPMANEX),
- ✓ And 47 million Ariary for direct support



## Planned resources to cover the costs for the construction and sustainability of drinking water services



The projected **revenue from water tariffs covers 68%** of estimated costs, with good coverage of maintenance and operation expenses and some major repairs.

The Commune has a significant financing gap, amounting to 343 million Ariary, spread over the three years it plans to invest significantly in infrastructure construction. The Commune is therefore recommended to:

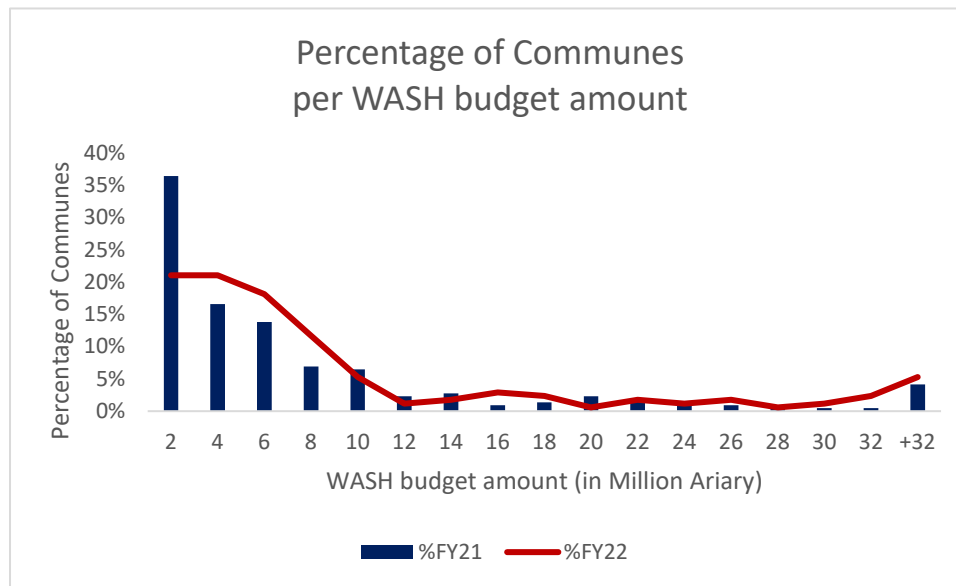
- ✓ Think about how its investment costs are spread out to balance its income versus expenditures because there are some years when it has funding excess.
- ✓ Since the Commune has a private water manager, it might need to factor in the costs associated with the private water manager expenditures in the model.
- ✓ The Commune and the central government plan to invest about 15% but still need to increase internal and external investment.
- ✓ RANO WASH is already supporting the Commune to discuss with the private sector to increase investment in the WASH sector, which is not yet factored in these results.

## ANNEX 21. COMMUNAL WASH BUDGET Q4.22

### FY2022 COMMUNAL WASH BUDGETS FOR 202 COMMUNES

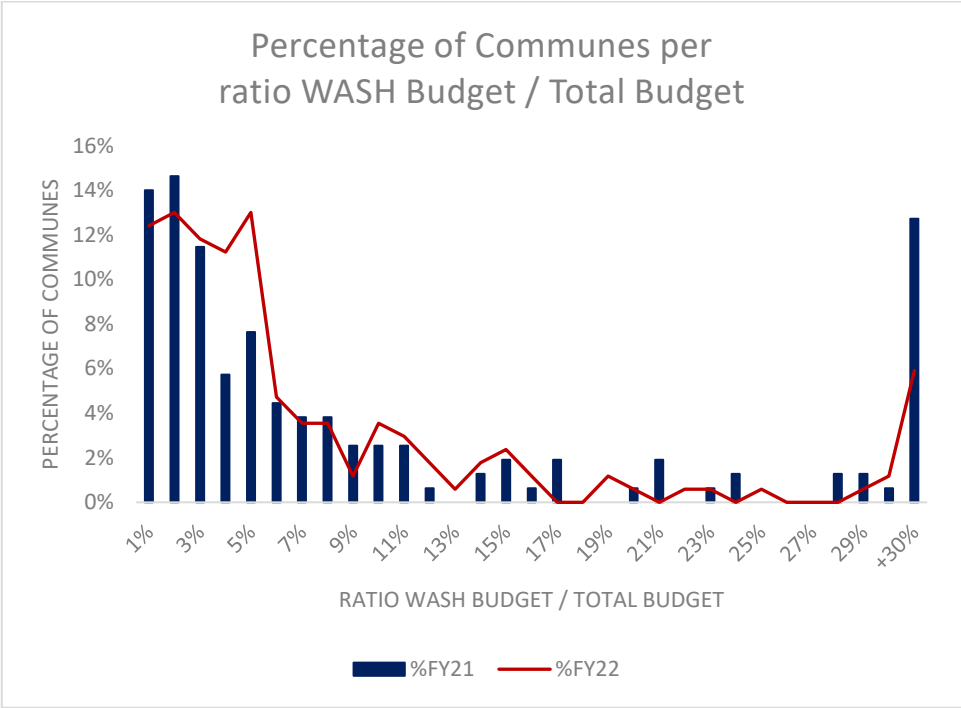
**98%** of the 175 communes that submitted their budgets have a **WASH budget**. The total amount of the WASH budget is **estimated at 2,146 billion ariary (\$499,000)**. **117 communes have increased** the amount of their **WASH budget** or the rate of the WASH budget compared to the total budget (108 communes have increased their WASH budget, and 94 communes have increased their WASH budget rate compared to the Communal budget).

According to the graph below, the dialogues on finding a more realistic budget following the Malagasy fiscal year 2021 experience have operationalized into a decrease in the rate of communes with a budget of less than 2 million ariary. Nevertheless, despite the increased WASH budget by communes, this amount remains low for only awareness activities and small repairs. Indeed, **75% of communes have a budget less than or equal to 9 million ariary**, and only 10% have a WASH budget greater than 20 million ariary.



*Data source: RANO WASH MEAL database October 2022, budgets available for 2021 are for 221/250 communes, and budgets available for 2022 are for 175/250 communes.*

**COMMUNAL WASH BUDGET VERSUS TOTAL BUDGET**



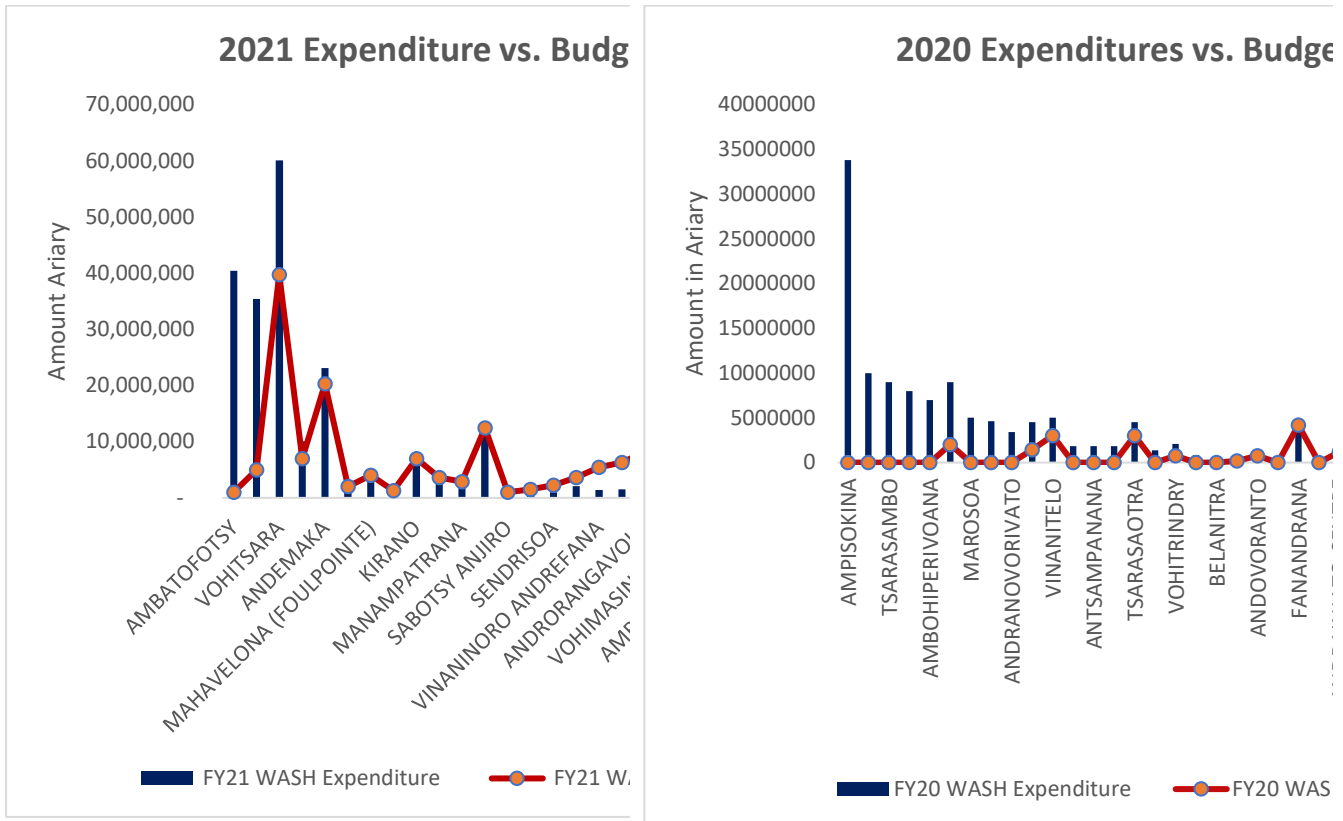
Data source: RANO WASH MEAL database June 2022

94 communes have increased the WASH budget rate compared to the total budget. This rate indicates a higher priority for WASH activities in the commune's budget. And 70% of the communes have less than a 7 % WASH budget compared to the total budget

## COMPARISON OF COMMUNAL WASH BUDGET AND ACTUAL EXPENSES

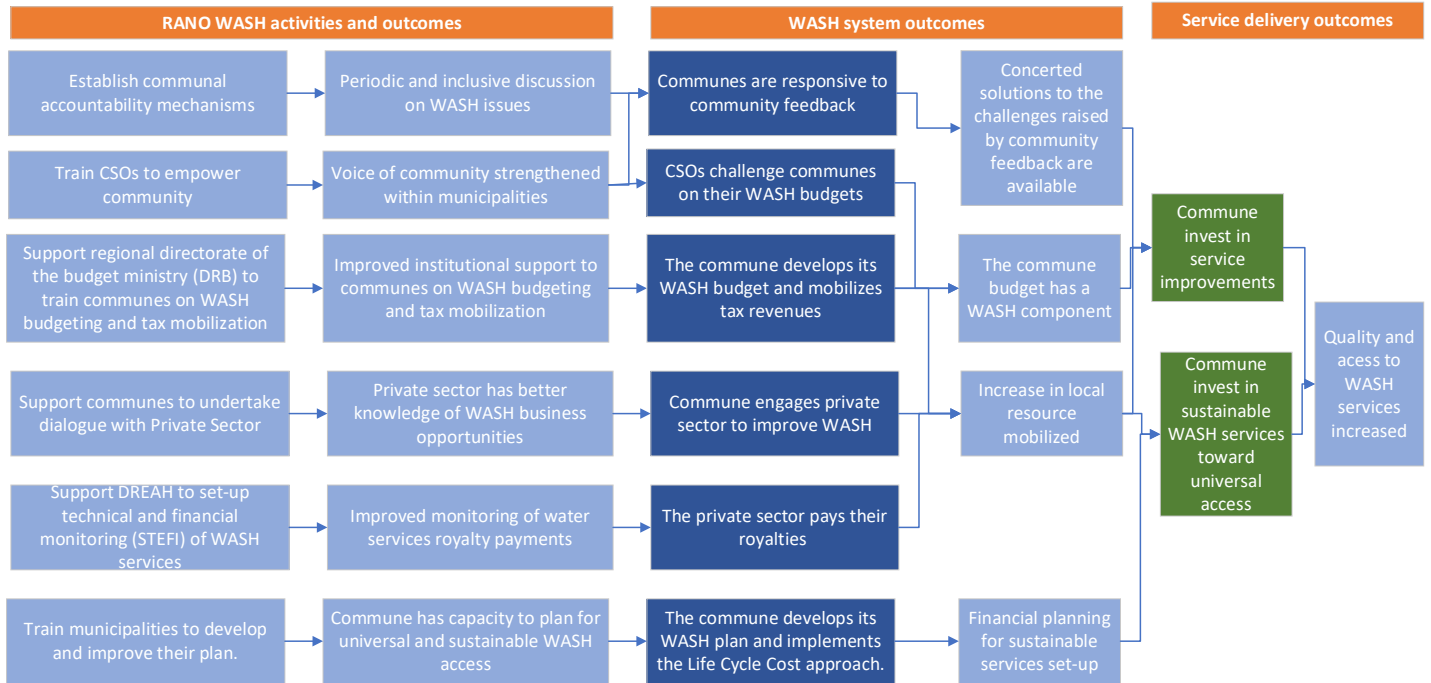
During FY22, 36 communes validated their 2021 administrative accounts. This number is an improvement over the figures for the same period last year. As a result of efforts undertaken with SRBs, the results of WASH budget documentation are palpable, but WASH expenditure documentation still requires significant effort to be systematized.

The elaboration of the administrative account (expenditure) remains a challenge for the communes.

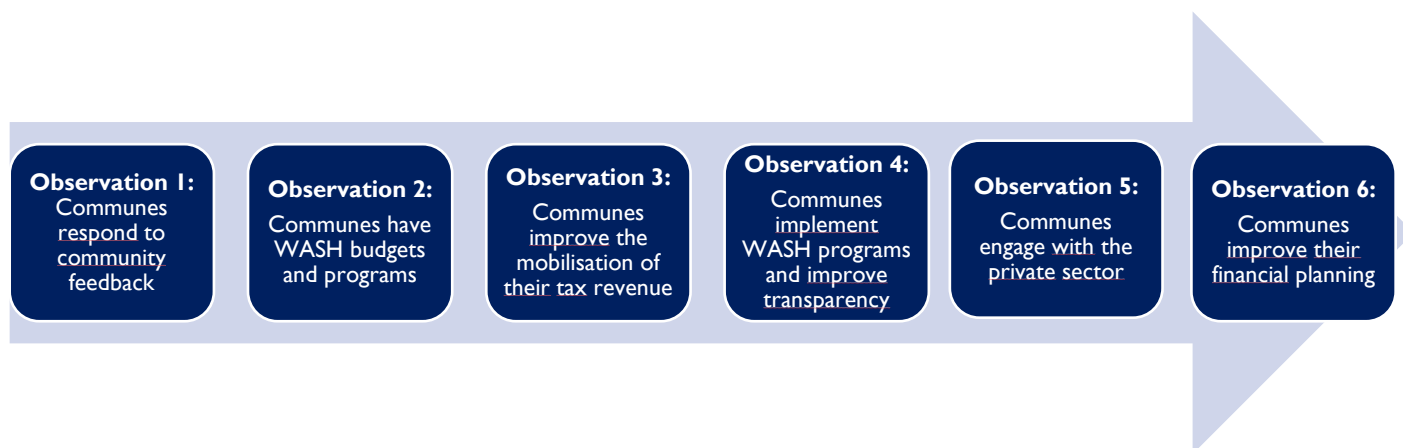


Although there have been improvements, the findings for 2020 on the inconsistency between planned WASH budgets and actual expenditures are still valid for 2021: (1) in the right part of each graph, some Municipalities undertake expenditures for WASH but have not provided documents to prove that they have budgeted it before. We can appreciate the evolution for 2021 as a result of the budget-writing efforts with the SRB. On the left side of each graph, other communes have budgeted WASH activities but still need to implement them. These Communes have often overestimated their ability to mobilize revenue to finance these expenditures. Given the one-year cycle for budget planning, our efforts have only impacted the inclusion of the WASH component in the various budget documents. Still, they have yet to influence the achievement of greater consistency between budget and actual expenditures. Organizations with a more permanent local presence should lead this effort, such as the DREAH, the Districts, and the regional budget offices.

## THE PATHS LEADING TO THESE CHANGES



## PROGRESSIVE IMPROVEMENTS OBSERVED IN THE COMMUNES:



### **Observation 1: Communes respond to community feedback**

Local structures such as CLCs, accountability mechanisms, and CSO actions are producing quick wins, particularly for mayors' and communes' commitment to WASH expenditures. Even if the commune does not initially have a formalized budget for WASH, these activities have helped to engage communes to fund the rehabilitation of small water supply schemes, the construction of small sanitary blocks, and the purchase of sanitation materials for markets and public spaces. When these structures are active, one can expect a quick win every three months.

### **Observation 2: Communes have WASH budgets and programs**

The challenge of assisting municipalities in developing their budgets should not be underestimated. Indeed, the one-year budget cycle slows down the effect of the improvement, even with quarterly corrections. And the following additional challenges have to be solved during the implementation: (1) Communes faced difficulty writing (and reading) the WASH component of a communal budget and especially on accounting codes for WASH activities, (2) Slow pace of communes preparing budget documents by the schedule foreseen by the texts, (3) Weak transparency of budget documents.

The regularity of budgetary entries can be observed after 1 to 2 years of support. (1) Collaborative efforts with SRBs are the most cost-effective, especially to facilitate training on the budget process and accounting coding, (2) CSO budget monitoring helps to strengthen commune WASH budget improvement efforts each year. In the Vatovavy et Fitovinany region, budget verification institutions (District and SRB) challenge communes when they do not have a WASH budget line.

### **Observation 3: Communes improve the mobilization of their tax revenue**

In addition to writing the WASH program and allocating expenditures, identifying new financial resources is critical for the commune. Thus, experiences have shown that the challenges often encountered can be solved: (1) Lack of political will of the Mayor to mobilize tax revenues, lack of capacity of the commune tax agents to mobilize tax revenue, and lack of ideas to motivate the community to pay taxes. The training effort and process can take more than a year to complete, not including advocacy efforts. Results are achieved each year incrementally by improving the tax mobilization strategy and tax collection efforts.

**Observation 4: Communes implement WASH programs and improve transparency**

Local structures and accountability mechanisms are the cornerstones for ensuring quality program delivery by the commune. The implementation of STEFI at the regional level is also an important element in improving the collection of charges from water supply managers.

**Observation 5: Communes engage with the private sector**

The increase in funding through private sector involvement by the commune has required seeing the results of large systems funded by RANO WASH. The drivers of change are the efforts to network communes with private operators and support the private sector to mobilize funding. Several forms of collaboration have been observed, depending on the financing modality and the field of application. The challenges of effectively mobilizing the funds to be provided by the communes within the allotted time are among the parameters that can weaken the process.

**Observation 6: Communes improve their financial planning**

The use of the life cycle cost tool by the municipality is ideal. It allows them to have a long-term vision (2030) and to consider all the parameters to ensure universal access or a less ambitious coverage objective. But it also allows them to monitor the resources that can be mobilized and prepare the annual budgets to be submitted. The challenges of manipulating the excel file require the support of DREAH. The communes can gradually master the parameters of the system by progressing through the points previously observed.



## ANNEX 22. SE&AM / MONITORING SYSTEM STRENGTHENING Q4.22

### SE&AM UPGRADE TIMELINE. Q4.22 UPDATE

	FY 2022			FY 2022			FY 2022			FY 2022		
	Q1			Q2			Q3			Q4		
Activity Description	Oct	Nov	Dec	Jan	Feb	March	April	Mai	June	July	Aug	Sept
<b>SE&amp;AM Upgrade Timeline</b>												
Documentation from SE&AM												
Completeness analysis and relevance of SE&AM documentation as a sector tracking system												
SE&AM Review Workshop Preparation and Implementation												
M&E plan												
Preparation and drafting of the national M&E plan for the sector												
Validation workshop for the national M&E plan for the sector												
Training of Ministry agents on sector M&E												
SE&AM platform												
Development of the SE&AM platform												
Training on the use of the SE&AM platform												
Set-up SE&AM online												

Rural Access to New Opportunities in Water, Sanitation, And Hygiene  
RANO WASH FY2022 Quarter 4 & Annual Report – Annexes

	FY 2022			FY 2022			FY 2022			FY 2022		
	Q1			Q2			Q3			Q4		
Activity Description	Oct	Nov	Dec	Jan	Feb	March	April	Mai	June	July	Aug	Sept
Platform test and correction and follow-up	Actual Progress	Planned Activities	Actual Progress	Actual Progress	Planned Activities	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress	
RANO WASH data online												
Phase II: To be undertaken by the MEAH	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress
Test, implement adaptation and correction for private Water System Managers, Communes and Stakeholders								Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress
Test, implement adaptation and correction for DREAH								Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress
Support DREAH to train regional stakeholders												
Large-scale formalization												
Support regional team and stakeholders								Actual Progress	Actual Progress	Actual Progress	Actual Progress	Actual Progress

 Planned Activities  
 Actual Progress

**SCREENSHOTS OF THE SE&AM WEBSITE**

## SE&AM TRAINING SESSION PLANS PER REGION

### SESSION PLAN I – INFORMATION MEETING WITH DREAH AND STAKEHOLDERS

Day	Time	Themes
Day I (morning)	08h00-08h30	<b>Welcoming of participants</b>
	08h30 - 09h00	<b>Introduction, Objectives and Opening of the Workshop</b> - RANO WASH - MEAH/DREAH
	09h00 - 09h30	<b>Presentation of the upgraded SE&amp;AM platform</b>
		- Access and privileges - Content of the upgraded SE&AM platform - Types of forms/questionnaires
	09h30 - 10h00	<b>MEAH indicators and recorded data</b>
	10h00 - 11h00	Information and data flow chart
		Roles and responsibilities of stakeholders (MEAH, DREAH, Technical and Financial Partners, etc.)
	11h00 - 11h30	Questions and answers
	11h30 - 11h45	Closing Remarks
11h45 - 12h00	Cocktail	

### SESSION PLAN II – TRAINING OF DREAH AND STAKEHOLDERS

Day	Time	Themes
Day I Afternoon	14h00 – 14h15	Session Introduction/Opening
	14h15 – 14h30	Training Agenda and Objectives - RANO WASH - DREAH
	14h30-15h00	General presentation of the upgraded SE&AM platform
	15h00-15h30	Roles of Technical and Financial Partners
	15h30-16h00	Information and data flow
	16h00-16h30	Privileges and types of organizations on the platform
	16h30-17h00	Access to the SE&AM web platform
		Access to DHIS2 mobile/web
17h00-17h30	Presentation of forms / questionnaires - Data entry tracker forms - Aggregated data entry form	
Day 2	<b>Morning</b>	
	08h30-9h00	Detailed presentation of forms and filling methods: INSTITUTION form
		Practical exercise
		Questions answers
		Practical exercise
9h00-10h00	Detailed presentation of the forms and filling methods: WATER form	

Day	Time	Themes
		Practical exercise
		Questions answers
		Practical exercise
	10h00-11h00	Detailed presentation of the forms and filling methods: SANITATION form
		Practical exercise
		Questions / answers
		Practical exercise
	11h00-12h00	Detailed presentation of the forms and filling methods: HYGIENE form
		Practical exercise
		Questions / Answers
		Practical exercise
	12h00-13h00	<b>General test of data/information flow:</b> - data entry by Technical and Financial Partners - synchronization, - visualization, - validation
		<b>AFTERNOON</b>
	14h00-15h00	Use of data by users
15h00-16h00	Data upload calendar for 2022	

### SESSION PLAN III – TRAINING OF STEAH

Day	Time	Themes
jour 3	<b>MORNING</b>	
	08h00 - 08h15	Session Introduction/Opening
	08h15 - 08h30	Training Agenda and Objectives - RANO WASH - DREAH
	08h30-09h00	General presentation of the upgraded SE&AM platform
	09h00-09h30	Roles of Technical and Financial Partners
	09h30-10h00	Information and data flow
	10h00-10h30	Privileges and types of organizations on the platform
	10h30-11h00	Access to the SE&AM web platform
	11h00-11h30	Access to DHIS2 mobile/web
	11h30-12h00	Presentation of forms / questionnaires - Data entry tracker forms - Aggregated data entry form
		<b>AFTERNOON</b>
	13h00-14h00	Detailed presentation of forms and filling methods: INSTITUTION form
		Practical exercise
		Questions answers
Practical exercise		

Day	Time	Themes
	14h00-15h00	Detailed presentation of the forms and filling methods: WATER form
		Practical exercise
		Questions answers
		Practical exercise
	15h00-16h00	Detailed presentation of the forms and filling methods: SANITATION form
		Practical exercise
		Questions / answers
		Practical exercise
	16h00-17h00	Detailed presentation of the forms and filling methods: HYGIENE form
		Practical exercise
		Questions / Answers
		Practical exercise
17h00-18h00	Detailed presentation of forms and filling methods: INSTITUTION form	
	Practical exercise	
	Questions answers	
	Practical exercise	
Day 4	<b>MORNING</b>	
	08h30-12h30	Field Practice: Filling out the forms
	<b>AFTERNOON</b>	
	14h00-15h00	Data upload calendar for 2022
	15h00-16h00	Wrap-up and Closing Remark

## NUMBER OF PEOPLE TRAINED ON SE&AM

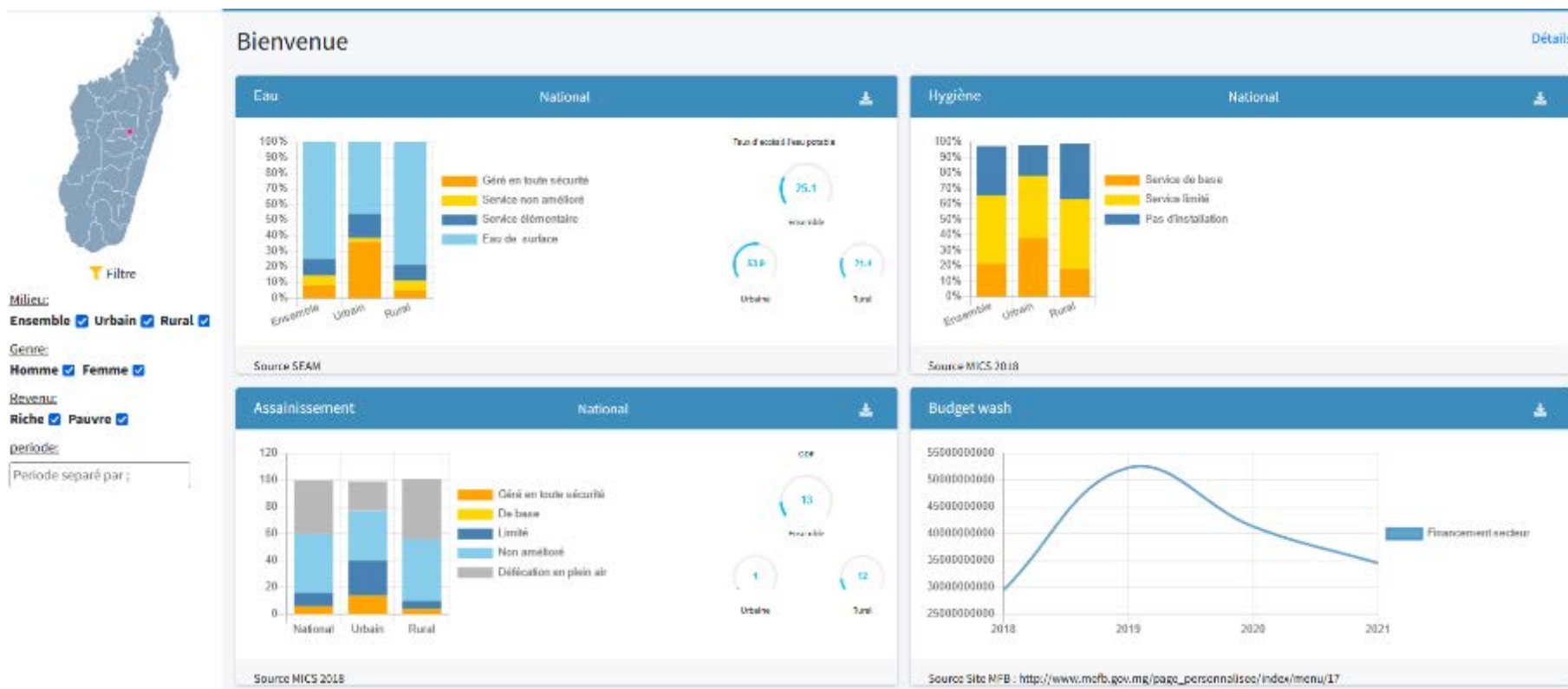
Regions	Dates	Participants	Number of participants		
			Men	Women	Total
Vakinankaratra	August 16 and 17, 2022	DREAH, PTF	4	6	10
	August 18 and 19, 2022	ATEAH	29	0	29 out of 30
Atsinanana	August 22 and 23, 2022	DREAH, PTF	1	1	2
	August 24 and 25, 2022	ATEAH	40	9	49 out of 51
Alaoatra Mangoro	August 29 and 30, 2022	DREAH, PTF	11	1	12
	August 31 and September 1	ATEAH	44	4	48 out of 51
Amaron'I Mania	August 16 and 17, 2022	DREAH, PTF	6	2	8
	August 18 and 19, 2022	ATEAH	27	3	30 out of 30

Regions	Dates	Participants	Number of participants		
			Men	Women	Total
Haute Matsiatra	August 22 and 23, 2022	DREAH and PTF	4	5	9
	August 24 and 25, 2022	ATEAH	18	2	20 out of 20
Vatovavy and Fitovinany	August 29 and 30, 2022	DREAH and PTF	4	2	7
	August 31 and September 1, 2022	ATEAH	51	4	55 out of 65
Total participants			239	39	279

\*The remaining STEAH and technical and financial partners will be trained by DREAH subsequently as per the timeline above

Example of the SE&AM public welcome page

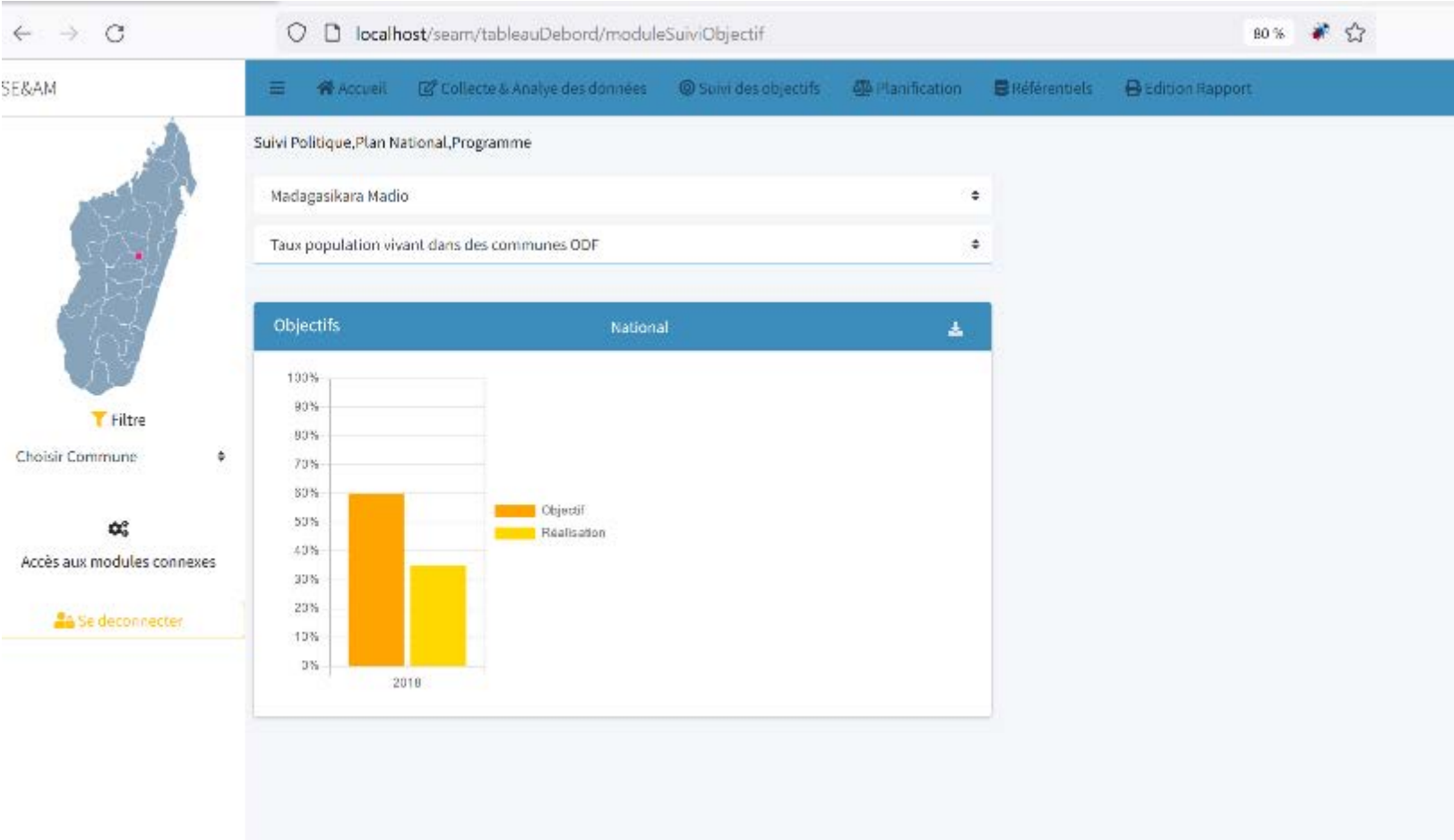
The choice of information from the SE&AM database to be displayed is managed by the MEAH. In this example, we have the Water access rates, the sanitation access rate and the Hygiene access rate, and the evolution of the National WASH budget.



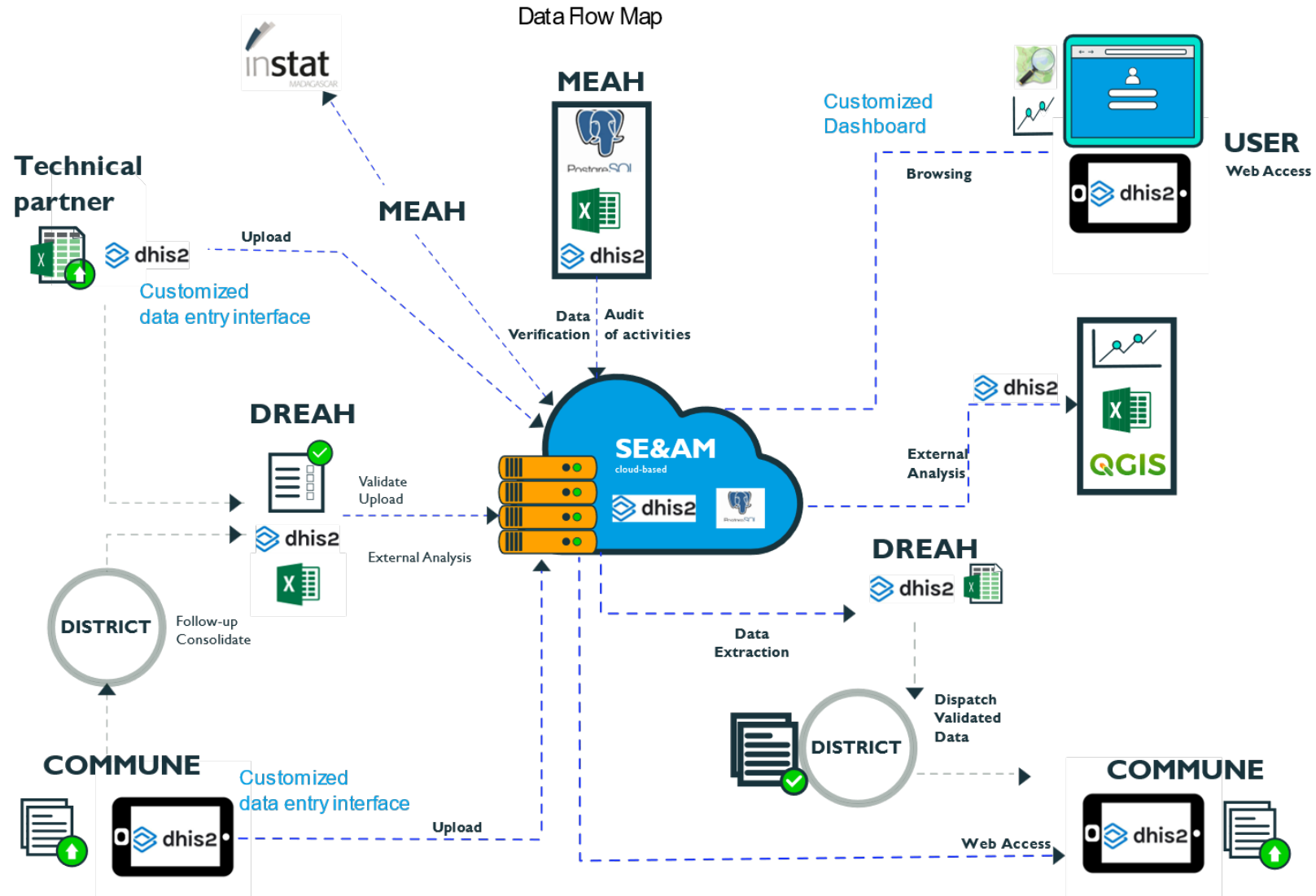




SE&AM also tracks key indicators for the sector such as (1) performance contracts to achieve PEM 2023 (PEM: Plan pour l'émergence de Madagascar), (2) the MDGs, (3) and Madagascar Madio program. Here is a comparison of the targets and achievements of the number of people living in ODF communes.



**SE&AM Data Flow using DHIS2 – new support from INSTAT**



## ANNEX 23. SCOPING MEMO FOR MADAGASCAR WATER FAIR



**01-03 DECEMBRE 2022**

### SALON NATIONAL DE L'EAU

« L'EAH, UN SECTEUR D'INVESTISSEMENT POTENTIEL »

#### COMMENT L'EAH CONTRIBUE AU DEVELOPPEMENT ECONOMIQUE DE MADAGASCAR ?

Cet événement, organisé par le **Ministère De l'Eau, de l'Assainissement et de l'Hygiène**, en Collaboration avec ses **partenaires techniques et financiers** vise à mettre en connexion des acteurs privés du secteur WASH avec les investisseurs potentiels, pour créer des opportunités d'affaires, mobiliser des ressources et développer un environnement favorable au secteur.

Il est destiné à tous les acteurs du secteur EAH, y compris le secteur privé, les institutions financières, les décideurs politiques et économiques, les sociétés civiles, les institutions multilatérales.



#### NOTE DE CADRAGE

Axes thématiques

Exposition - vente

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Organisation

---

Agenda indicatif

---

Contributions

Lieu :

PALAIS DES SPORTS

ΜΑΔΗΜΑΔΣΙΝΑ

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Contacts :

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2. Axes thématiques.....	4
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3. Exposition - vente.....	7
4. Date, lieu et autres informations pratiques.....	8

## I. Contexte et objectif

Actuellement à Madagascar, 59% de la population (environ 15,3 millions de personnes) n'a pas accès à un service d'eau de base. En ce qui concerne l'hygiène, 69,7% de population n'a pas accès au service d'assainissement de base et 77% de la population (20 millions de personnes) n'a pas accès à un service d'hygiène de base (lave-main, eau, savon). Au niveau des institutions, plus des 80% des institutions publiques restent sans services d'Eau, Assainissement, Hygiène (EAH).

La promotion de l'accès universel à l'eau potable figure parmi les priorités du Plan Emergence de Madagascar (PEM), et selon le Velirano n°2 du Président de la République, « L'énergie et l'eau pour tous » constitue un des socles de l'émergence de notre pays (Politique Générale de l'Etat 2019- 2023). L'objectif est ainsi qu'en 2023, 60% de la population ait accès à l'eau potable.

Vu les objectifs du Gouvernement et la situation actuelle du taux d'accès aux services EAH, le secteur a besoin d'investir fortement afin d'atteindre lesdits objectifs.

C'est dans l'optique de constituer une plate-forme de rencontre entre d'une part le MEAH et les porteurs de différents projets du secteur EAH et d'autre part les investisseurs et partenaires technico-financiers potentiels que le MEAH tient à organiser le Salon National de l'EAH, du 01 au 03 Décembre 2022 au Palais des sports Mahamasina.

Ainsi, cette première édition, qui se veut être le plus grand événement national lié à l'EAH à Madagascar, permettra la rencontre entre les différents acteurs (secteur privé, les institutions financières, les décideurs politiques et économiques, les sociétés civiles, les institutions multilatérales, investisseurs ...) dans le but de faire connaître la réalité du secteur EAH à Madagascar, mobiliser les ressources et partager les opportunités afin de conclure des accords et/ou partenariats dont bénéficiera le secteur de l'EAH.

Ce sera une occasion de réunir en un seul endroit les acteurs économiques, entreprises et autres branches d'activités contribuant au développement du secteur EAH, et les différentes formes de sessions (conférences, rencontres B2B ...) favoriseront les échanges entre les différentes entités.

Ce sera également un moyen pour le secteur de se faire au grand public. Dans ce sens, des étudiants auront une session spéciale (Jour 2) durant le salon et plusieurs conférences sont au

programme.

Pour cette première édition, l'envergure du salon est nationale mais le MEAH a l'ambition non seulement d'organiser cet événement annuellement mais également d'étendre son envergure à l'international.

Le MEAH mise sur les retombées économiques positives de cette première édition du Salon de l'Eau car les expériences précédentes sur l'organisation des Forums régionaux de l'eau, de l'assainissement et de l'hygiène dans plusieurs régions, ont démontré l'efficacité de ce genre d'événement.

Ainsi, cette première édition du Salon de l'Eau, envisage de réunir 100 exposants, près de 20 000 visiteurs englobant tous les secteurs d'activités liés directement ou indirectement au secteur EAH (Investisseurs et/ou Gestionnaires des services EAH (eau potable, gestion des déchets solides et liquides, ...), fournisseurs de matériels et équipements, institutions d'investissement et de garantie, institutions financières, télécommunication, incubateurs d'entreprises, utilisateurs de ressource en eau, transformateurs de produits EAH, initiatives nationales et internationales pour le développement du secteur privé, Bailleurs de fonds, Ministères etc.

## 2. Axes thématiques

Le salon est organisé autour de trois axes thématiques :

- Financement publique pour les services WASH :
- Potentialités d'affaires du secteur WASH :
- Initiatives nationales et internationales pour développer l'engagement du secteur privé dans le secteur (PEM, ODD, Cadre légal, type de contrats existant et promu par MEAH...)

Les contributions attendues des participants se déclineront sous deux principales formes qui seront soumises simultanément pour la préparation :

- Un résumé de 3 pages A4 au maximum en utilisant le formulaire en annexe ;
- Une présentation PowerPoint de 10 slides au maximum respectant le même canevas que le résumé. Il est fortement recommandé de privilégier les images et diverses illustrations graphiques et de réduire au maximum les textes.

### Étape 1 : Soumission d'un résumé et d'une présentation PowerPoint

- Les personnes et organisations identifiées pour présenter des contributions au salon sont invitées à soumettre simultanément un résumé et une présentation PowerPoint de leur contribution à l'adresse **Ministère de l'Eau, de l'Assainissement et de l'Hygiène, EX-**

**Immeuble DAIEC Ambohitovo Ambony au plus tard le vendredi 04 Novembre 2022.**

Les détails pour chaque communication sont présentés à l'Annexe I.

Étape 2 : Correction des résumés et présentations PowerPoint

Le **Lundi 07 Novembre 2022**, le comité technique se réunira pour examiner et corriger les contributions au regard des axes thématiques du salon. Les auteurs des contributions recevront une notification des amendements par courrier électronique et seront invités à envoyer la version finale de leur résumé et de leur présentation PowerPoint intégrant les corrections indiquées par le comité scientifique. La date limite pour la transmission des contributions finales est le **Mercredi 09 Novembre 2022**.

Étape 3 : Diffusion de l'agenda final

L'agenda final du salon sera élaboré sur la base des contributions finales reçues dans les délais impartis. Les participants seront informés des dates et horaires spécifiques des sessions dans lesquelles sont prévues leurs interventions, à travers l'agenda final qui sera communiqué au plus tard le **Vendredi 11 Novembre 2022**.

NOTES POUR LES COMMUNICATEURS AU MARCHÉ DES INNOVATEURS

<b>Intitulé de votre innovation :</b>	
<b>Auteur(s) soumettant la candidature</b>	<b>Principal contact</b>
<b>Nom, prénoms, organisation et titre ou fonction</b>	Nom : Prénom : Email : Tél :
<b>Axe thématique concerné par l'innovation<sup>1</sup></b>	
Le développement et l'amélioration du service public	
Le recouvrement des coûts et l'accessibilité financière du service public	
Les responsabilités mutuelles des parties prenantes	
La planification stratégique de la gestion du service public à l'échelle communale	
<i>Vous ne pouvez cocher qu'une seule case</i>	

<sup>1</sup> Chaque candidature ne peut toucher qu'un axe thématique. Si votre innovation couvre plusieurs axes thématiques, prière soumettre des candidatures séparées pour chaque axe.

NOTES POUR LA PREPARATION DES COMMUNICATIONS POUR LES SESSIONS  
 THEMATIQUES

Session / Axe	Présentations	Indications pour le communicateur
Cadrage	1.	<p>Contenu attendu : PowerPoint 15 slides maximum – 20 min.</p> <p>Prière indiquer l'identité (noms et prénoms), les adresses email et les contacts téléphoniques des communicateurs.</p>
Financement publique pour les services WASH	2.	<p><u>Contenu attendu</u> : Formats à respecter : Document Word de 3 pages A4 maximum et Présentation PowerPoint 10 slides maximum – 15 min.</p> <p>Prière indiquer l'identité (nom et prénoms), l'adresse email et les contacts téléphoniques du communicateur.</p>
Potentialités d'affaires du secteur WASH	3.	<p>Contenu attendu : Formats à respecter : Document Word de 3 pages A4 maximum et Présentation PowerPoint 10 slides maximum – 15 min.</p> <p>Prière indiquer l'identité (nom et prénoms), l'adresse email et les contacts téléphoniques du communicateur.</p>
Initiatives nationales et internationales pour développer l'engagement du secteur privé dans le secteur	4.	<p><u>Contenu attendu</u> : Formats à respecter : Document Word de 3 pages A4 maximum et Présentation PowerPoint 10 slides maximum – 15 min.</p> <p>Prière indiquer l'identité (nom et prénoms), l'adresse email et les contacts téléphoniques du communicateur.</p>



### 3. Exposition-Vente

Ce salon National de l'Eau est un premier rendez-vous de cette année, pour Madagascar, pour rencontrer les professionnels de la filière Eau- Assainissement-Hygiène.

Ce salon est l'occasion, pour les professionnels:

- d'échanger avec les acteurs clés du marché,
- de découvrir les nouveautés et les tendances du marché,
- de participer à des conférences thématiques et ciblées,
- de concrétiser ses projets avec des experts engagés et reconnus.

La découverte des nouveautés et innovations y sont nombreuses.

En complément de conférences, d'ateliers thématiques et de rendez-vous business, il y aura une zone d'exposition-vente regroupant plus d'une centaine d'acteurs et experts. L'objectif n°1 de ce Salon est de créer des opportunités d'affaires, mobiliser des ressources et développer un environnement favorable au secteur.

**Galerie/Société : Nom,**

**Prénom(s) : Adresse :**

**E-mail : Site**

**web :**

**Téléphone :**

**Taille du stand souhaitée :**

Le prix de la location du Stand sera communiqué avec le plan de l'espace pour les participants confirmés.

La confirmation de participation est obligatoire avant le 06 Novembre 2022.

### 4. Date, lieu et autres informations pratiques

Le salon se tiendra du 01 au 03 Décembre 2022 au Palais des Sports Mahamasina selon l'agenda indicatif suivant :

	<b>Jour I</b> (Sur invitation uniquement):
<b>I</b>	Ouverture officielle et Rencontre entre les VIP (les Autorités officielles, les bailleurs, les investisseurs, secteur privé, participants et journalistes ...)

2	Conférence inaugurale montrant le potentiel d'affaire du secteur EAH dans son ensemble
3	Visite de stand
4	Echange B2B en vue de mettre en valeur les opportunités d'affaires.
5	Conférences thématiques interactives
	<b>Jour 2</b>
6	Journée étudiante, présentation des opportunités d'affaires et des métiers du secteur WASH
	<b>Jour3</b>
7	Tout Public (Exposition, ventes...)

**Contacts :**

[www.meah.gov.mg](http://www.meah.gov.mg)

+261380100089 (Mme Zo)

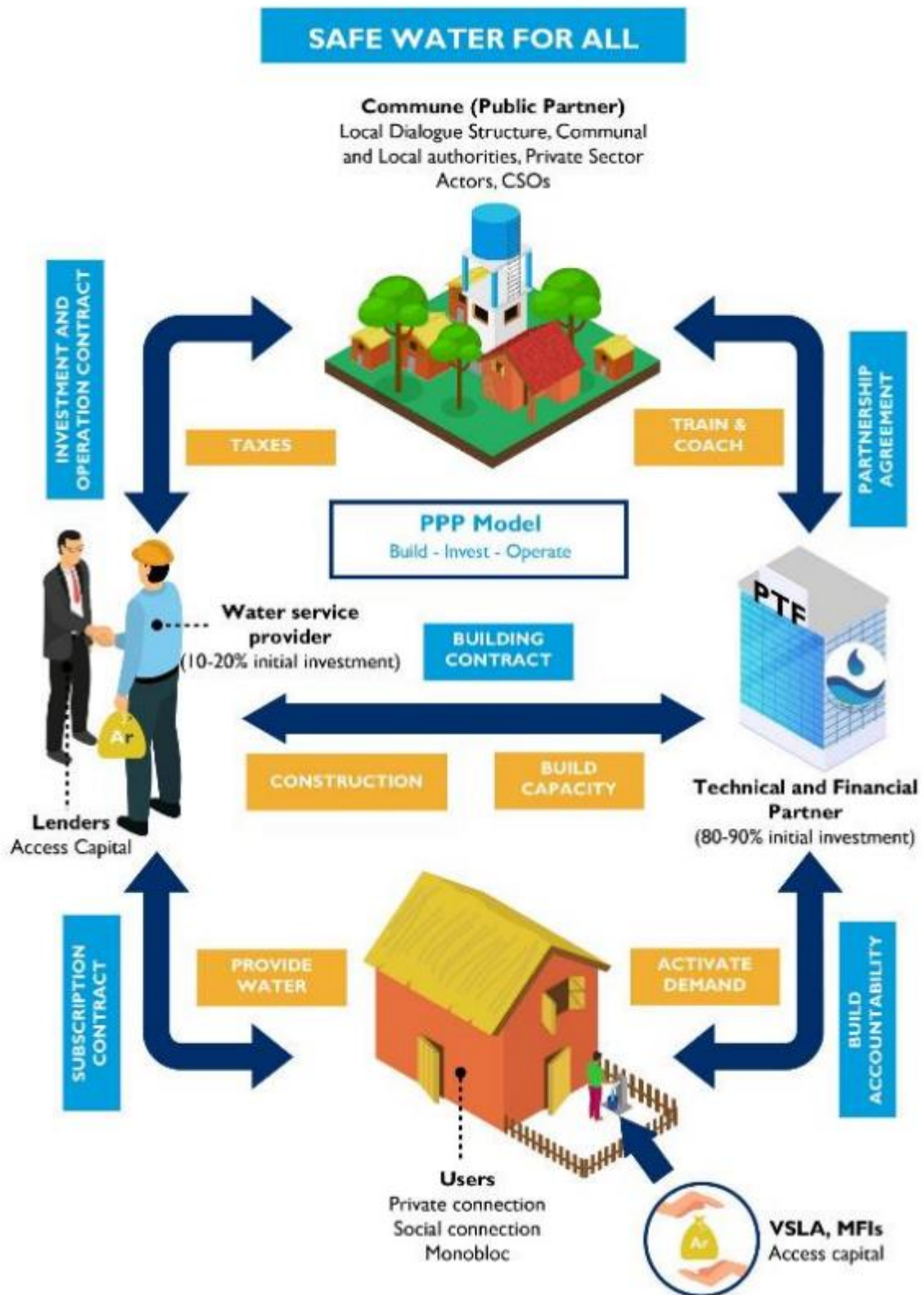
+261380100090(Mme Christiana)

+261347471392(Mme Lanto)

[ramahangelicaaina@yahoo.fr](mailto:ramahangelicaaina@yahoo.fr)

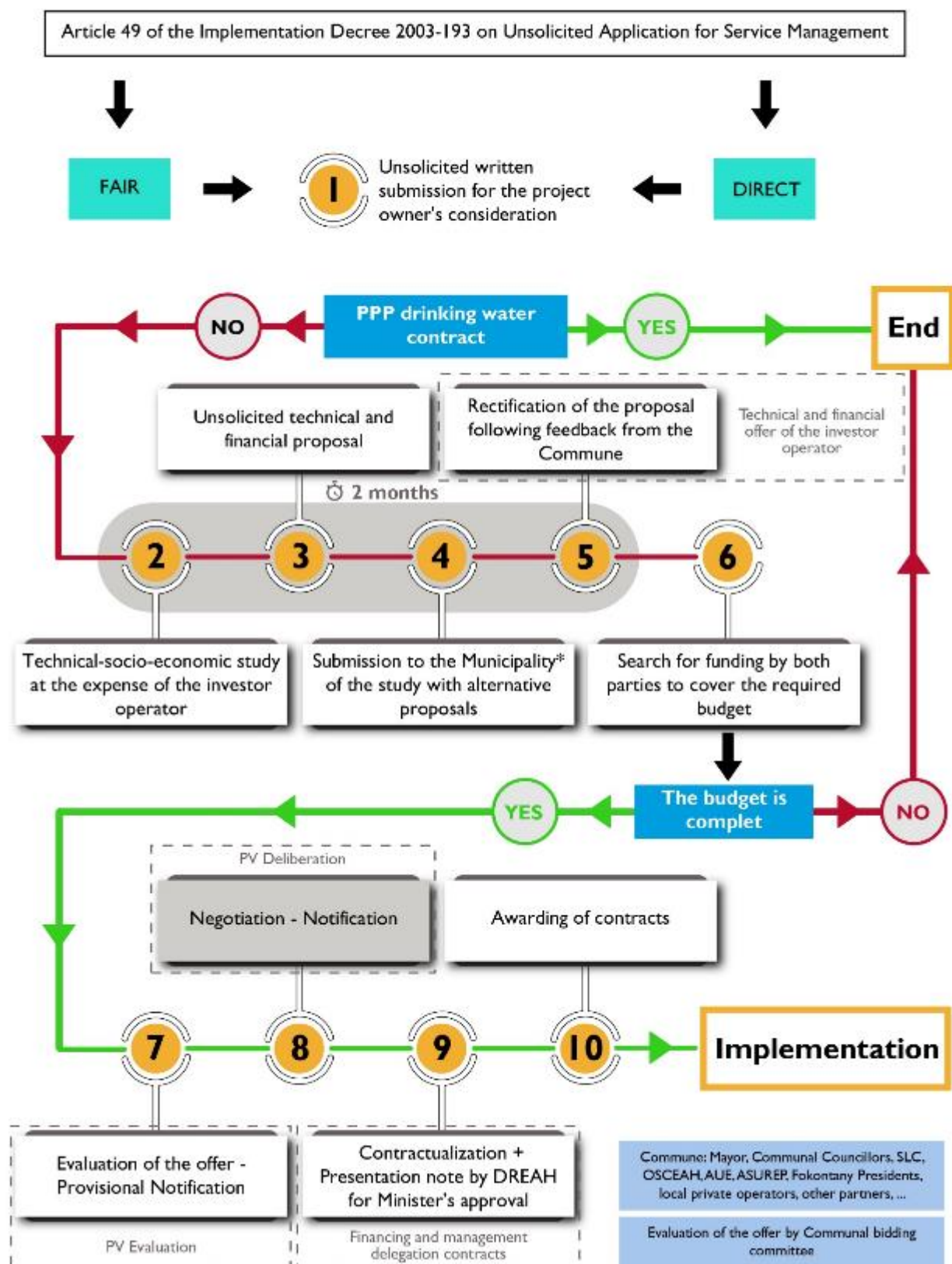
**Ministère de l'Eau, de l'Assainissement et de l'Hygiène**

## ANNEX 24. PUBLIC-PRIVATE PARTNERSHIP MODEL FOR WATER SERVICES – “BUILD - INVEST - MANAGE”



## Unsolicited Application for PPP Water Services

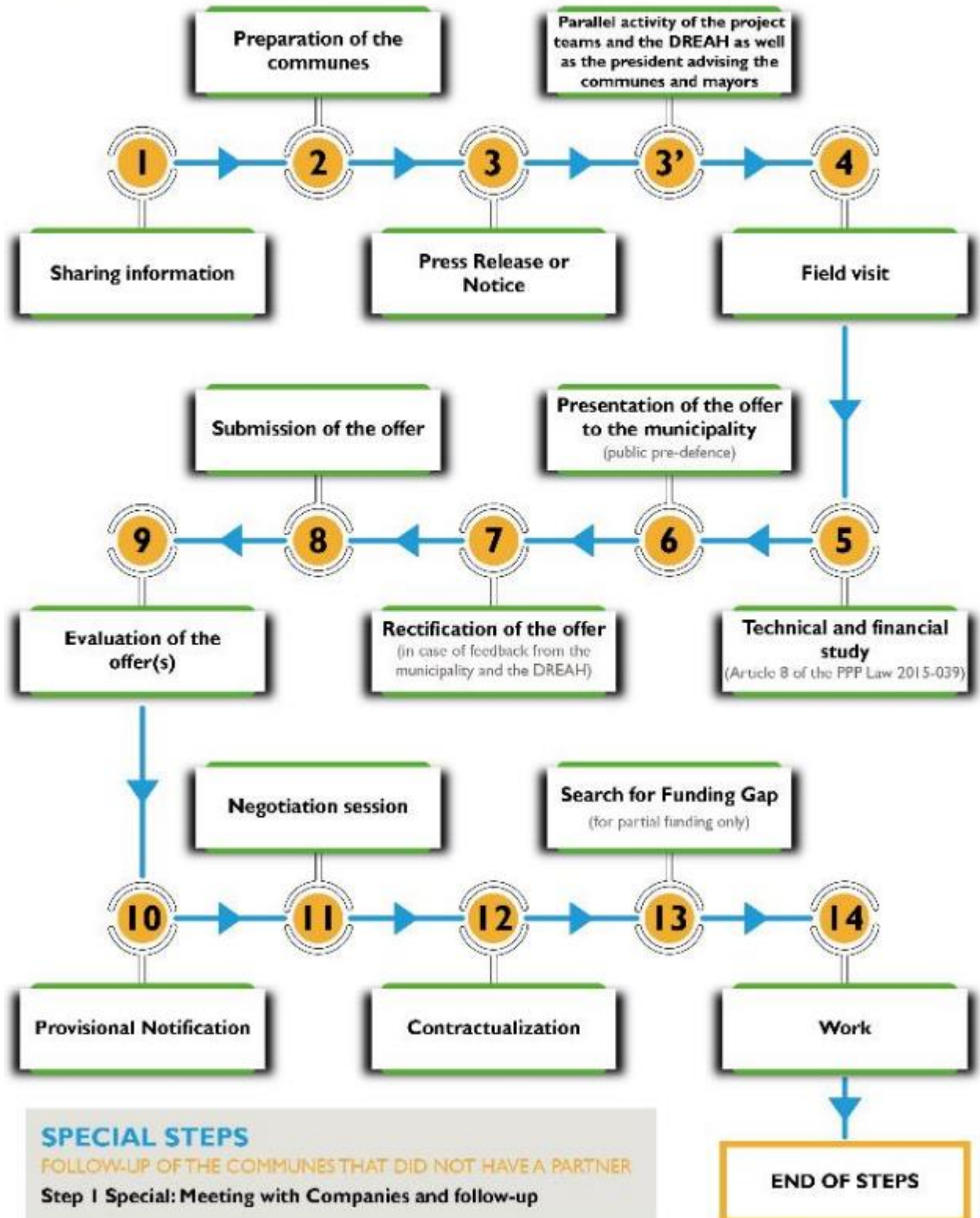
« Study - Construction - Co-investment - Management »



## ANNEX 25. GUIDELINES FOR UNSOLICITED PPP APPLICATIONS

### STEPSTO FOLLOW

SELECTION OF THE CANDIDATES RECEIVED AT THE FAIR WHO HAVE EXPRESSED THEIR INTEREST



**Submission period (steps 1 to 8):** two months from the date set in the letter of submission to the fair

**Project and DREAH responsibility:** Support during all processes

**General NB:** The Commune is committed after the signature of the contract, therefore no more acceptance of new bidders within the framework of the delegation of management around its perimeter of delegation and its immediate perimeter of economy of scale. *(The perimeter of the delegation of management of the public drinking water service is therefore occupied for the duration of the contract)*

As a first step, communes should ensure that they have the support of their communities for the introduction of PPPs by organizing a community meeting on the introduction of the PPP approach. The roles and responsibilities of the actors involved, needs, etc. are discussed. A communal minutes of deliberation accepted by the legality control will confirm the adherence.

## STEPS TO FOLLOW

Always have in hand a table of the situation of the interested bidders at the level of each commune (Name of the companies, contact person, email address, telephone contact, the communes which interest them each, the dated columns of each stage to be followed after fair by bidder, ...)

### SELECTION OF THE CANDIDATES RECEIVED AT THE FAIR WHO HAVE EXPRESSED THEIR INTEREST

#### Step 1: Sharing information

To share with each company the communal files of the communes which interest them and all the other information necessary to its study such as:

- PCDEAH,
- APS,
- APD,
- Result of the last census,
- list of households interested in each type of connection,
- the deliberation of the municipal council granting private management of the drinking water service,
- List of water sources,
- The construction contract template,
- The model of management delegation contract,
- Subscriber contract template,
- The model of submission form used by RANOWASH for reference only to the assembly of the submission file, (Administrative Form, Technical Form, Financial Form)

- Proof of investment contribution and commitments of the commune

- ...

## Step 2: Preparation of the communes

To agree with the communes the dates of the guided tour and that they also prepare for the tour circuit to show on the ground the information to be shared with the companies (Mainly the visit of the system from the catchment to the *borne fontaine* where the commune shows the visitors the quality of the existing distribution networks)

- Set the time frame for the visit (1 day visit per municipality according to our experience)
- To train the spokesperson of the commune on the expectations of the visit, the key points expected by the visitors such as:
  - o The amount of funding provided by the municipality,
  - o Protective measures for watershed and water resources management (IWRM),
  - o Supplies already available from donors (if available),
  - o The local materials existing and supported by the municipality,
  - o Community organizations and tasks already agreed upon with the population,
  - o Minutes of deliberations accepting private management,
  - o Application of transparency in the realization of these different stages of the tender,
  - o Equal treatment of all candidates,
  - o The effectiveness of accountability mechanisms, ...)
- Designate and fix already the appointment with the local people concerned by the visit
- Define the preparations to be made by the visitor:
  - o Possibility of passage in dugout and puddles
  - o The time frame of the visit,
  - o The type of accommodation,
  - o ...

## Step 3: Press Release or Notice

- Inform bidders of the date and time of the tour at least one week in advance and also inform them of the information and preparations to be made for the tour.
- Reminder of submission deadline to interested parties

## Step 3': Parallel activity of the project teams and the DREAH as well as the president advising the communes and mayors

- Decide on the model or forms to be completed by the bidder based on the RANO WASH model (Administrative Form, Technical Form, Financial Form)
- Agree on the scoring grid for the evaluation of bids, again based on the RANOWASH model
- Constitution of the members of the CAO with deliberation and control of legality.

#### Step 4: Field visit

- Logistical organization of the visit
- Field visit of the potential systems presented by the municipality to pre-collect the technical-financial, economic, legal, administrative, environmental, social parameters, ... (Always encouraged future bidders to return to the site to make the in-depth studies).
- Distribute to bidders without distinction the bid template and the scoring grid that will be used by the evaluators. (Models of the Administrative, Technical and Financial forms used in the RANO WASH bids)
- (Obligation of transparency and equal treatment of candidates *according to Article 7 of Law 2015-039 on PPPs*).
- Reminder of submission deadline to interested parties.

#### Step 5: Technical and financial study (Article 8 of the PPP Law 2015-039)

After the field visit and with the information gathered, the bidder performs the in-depth studies and pre-feasibility calculations of the water services management project in accordance with the bid template.

- Recruit or hire a consulting firm or a specialized resource person for the technical study and the financial package.
- Prepare the detailed design according to the details agreed upon with the DREAH and the municipality.
- To make the assembly of the BDE, BDQE of the works to be carried out (Annex of the contract of works and the contract of delegation of management).
- Setting up of a business plan of the 5 possible scenarios of financing and management (*maximum 5 years of return on investment, ... this helps the Company to make a decision on the amount of investment to be taken in charge by the Company and on the water tariffs, as well as on the fees to be applied during the negotiation with the municipality*).
- Have a breakdown of the costs of the work undertaken by the Company including the costs of implementation (Mandatory for bidders making the partial investment and not necessary for bidders making the 100% investment).
- Complete the template for the tender documents agreed with the municipality and granted by the DREAH

#### Step 6: Presentation of the offer to the municipality

The bidders follow each other to present their best offers to the members of the commune with the

technical problems to be overcome by presenting the:

- Total amount of work
- The Company's share of the investment amount (*For partial investment*)



- The amount of financing of the company (*for the total investment*)
- The amount of funding from the commune
- The financing gap to be sought (*For the partial investment*)
- The BP Water Rate
- Water Tariffs for BS
- The Water Tariff at PEC
- The cost of selling a particular connection,
- The cost of sale of Social Connection,
- Distribution network plan with determination of the study perimeter and the network, (This is the future management delegation perimeter)
- Incentive management strategy in the interest of the commune (*local offices, number of staff to be put in place, ...*)
- Financial partners of the bidder, already available for Gap funding (as donations or investment)
- Partners of the bidder (if any)
- Request for feedback from members of the community present in the room under the support of the DREAH,
- Reminder of the deadline for submission, the date and time of the opening of bids to interested parties in the room by the DREAH or the commune,
- Reminder of the regulation on the possibility of rejection of the offer in the event of delay of deposits at the time envisaged, (*to Apply for the communes having more than two tenderers*)
- Reminder to the members of the municipal CAO of the place and the appointment of the opening of more (*It is strictly forbidden to quote the names of the members of CAO*)

### **Step 7: Rectification of the offer (in case of feedback from the municipality and the DREAH)**

- Correction of the submission according to the feedback from the commune members and DREAH
- Duplication of the submission in three copies (one for the commune, one for the DREAH and one to be used for the funding gap research) (The project will make a copy for itself)

### **Step 8: Submission of the offer**

- Finalization of the offer in the RANOWASH model format,
- Duplication of the submission in three copies (one for the commune, one for

the DREAH and one to be used for the search for funding gaps) (The project will make a copy for the commune based on the bid submitted to the commune).

- Submission or filing of the corrected offer (Physical and secure electronic version) before the deadline,

### **Step 9: Evaluation of the offer(s)**

- Hold a training/information session on the day before the bid opening for the OAC members present on the processes to be followed during the bid opening (approximately 1.5 hour session)
- Publicly read the number and files received within the required time and those that are late with agreed deliberation of the decision of rejection in relation to the deadline with the plenary,
- Proceed to the bid opening, (*Public session with reading aloud*)
  - o The name of the bidder and the time of submission,
  - o The total amount of work proposed,
  - o The Company's share of the investment amount (*For partial investment*)
  - o Amount of financing of the Company (*For the total investment*)
  - o The financing gap to be sought (*For the partial investment*)
  - o The BP Water Rate
  - o Water Tariffs for BS
  - o The Water Tariff at PEC
  - o Financial partners of bidder, already available, for Gap funding (as donations or investment)
  - o Partners of the bidder (if any)
  - o Duration of the work according to the schedule (*for 100% financing*)
- Draw up the bid opening minutes and have them signed in triplicate by the bidders and the CAO members present in the room,
- at the end of the bid opening session, thank the bidders or its representatives
- Closing of the bid opening session
- Proceed directly to the bid analysis and scoring according to the Scoring Grid and continue to the end,
- Decide what reserves are needed for negotiation if any for the first and second tier company, (The second tier is needed in case of withdrawal or disqualification of the first)
- Draw up the tender analysis report including the reservations,

**NB:** if we have only one candidate, go directly to the Gré à Gré after the analysis of its offer (*according to article 49 of the application decree 2003-193*)

### Step 10: Provisional Notification

- Draft a provisional notification letter from the first tier or the successful bidder with the members of the CAO under the support of the DREAH and the draft specifying the date of the negotiation if any,
- A letter of invitation to negotiate will be sent with the letter of provisional notification announcing the date and place,

**NB:** A letter of invitation to negotiate will be sent to the company and to the DREAH, while an official communiqué from the municipality will be sent to the members of the local CAO to schedule the date and place of the negotiation.

### Step 11: Negotiation session

- Conducting the negotiation session
- Draw up a negotiation report signed by those concerned
- Draw up the notification letter in case of agreement after the negotiation (*Signed by the concerned*)
- Exchange and arrange a meeting at the signing of the contract before separating (*if agreed*)
- *If no agreement, invite the second row to the Negotiation and continue with all remaining processes,*

### Step 12: Contractualization

- Hold the construction contract signing session and the management delegation contract at the same time, (*Always in the presence of the DREAH*)

**NB:** The contract takes effect as soon as the financing gap is completed or if the Company is ready to start the work at its convenience while the financing is progressively completed. However, it takes effect directly upon signing the 100% financing contract.

### Step 13: Search for Funding Gap (*for partial funding only*)

- Identified together the possibilities of donors to finance the gap,
- Search for financing or investment with the investor groups (SOLIDIS Capital and SUNREF) for companies that have already been in management for more than a year,
- Negotiation of a financing guarantee with SOLIDIS Garantie
- Participate jointly in various meetings to seek funding (*if agreed by both parties*)

### Step 14: Work

- Realization of the works (Installation of site, etc.)

## Step 15: End of Steps

### ◇ SPECIAL STEPS

#### SUPPORT TO COMMUNES THAT DO NOT HAVE A PARTNER

##### Step 1 Special: Meeting with Companies and follow-up

- Invites interested companies to the fair
- Meet with potential bidders to:
  - o Try to find out where their blockages are to bidding for the communes without a partner, (Form to be presented)
  - o Try to exchange more information to analyze all possibilities of resolution,
- Find solutions in consultation with DREAH and the RANOWASH team as well as the Mayor of the commune to solve the problems identified,
- Reinviting a company ready to bid as soon as the identified problems are solved, (Promote directly the OTC with him)
- Continue with the steps in the previous table from the beginning,

## ANNEX 26. TERMINATION OF THE PPP DELEGATION CONTRACT

### 2015-039:Art.47.- Termination

The PPP contract may be terminated early by mutual agreement or, at the initiative of one of the parties, in the event of serious misconduct on the part of the other party, force majeure, or disruption of its financial equilibrium, under the conditions defined in the contract.

The PPP contract may be terminated unilaterally by the Public Authority for a reason of public interest. The implementation of this power of termination implies that the

The Public Person may, on the one hand, demonstrate the existence of a reason of general interest justifying the legitimacy of this termination and, on the other hand, compensate the Contractor for all of its losses and its loss of profit.

The PPP contract sets out the terms and conditions of the compensation due to each party in each case of termination.

**2003-193:Article 81:** With the explicit agreement of the regulatory body, the project owner may take the decision to terminate a Management Delegation contract for a reason other than the failure of the Delegated Manager to perform its obligations. In this case, the Delegated Manager will be compensated for the prejudice resulting from the early termination of the Delegation of Management contract. The rules for determining the indemnity are specified in the Delegation of Management contract and must provide for an indemnity at least equal to the share of the investments not yet depreciated by the Delegated Manager, on the day of the termination, for the totality of the Returned Goods and the taken back goods. For Delegation of Management contracts signed as of the date of publication of this decree, such termination may not take place before ten years of management for the Concession, five years for the Affermage and three years for the Management.

**2015-039:Art 49:** Any dispute arising directly or in connection with the performance, termination, cancellation or interpretation of a PPP contract, shall be subject to the dispute resolution mechanisms as agreed by the parties in the contract.

For the case of GIC contract it is the regulating body which is none other than the MEAH

### How to do it?

**2003-193 : Article 82 :** In case of non-performance by the Delegated Manager of its obligations, the Owner may declare its forfeiture under the conditions provided for in the Management Delegation Contract. The Employer shall inform the Delegated Manager of the reasons for its forfeiture, which must be objective, non-discriminatory and properly documented. The Employer shall send the documents to the Regulatory Body for consultation. The termination shall be pronounced after the Delegated Manager has been notified of the grievances and has been given the opportunity to consult the file and to present its written and verbal observations.

The conditions and procedures for termination or forfeiture are specified in the Management Delegation contract.

### Art.19 CDG contract:TERMINATION OF THE CONTRACT

Either party may request the termination of the Contract by registered letter with acknowledgement of receipt, giving six months' notice and stating the reason(s) for the termination based on one of the causes listed below as legitimate reasons.

Any other cause may be considered as abusive and give rise to compensation.

#### Valid reasons for termination of the Contract by the Employer

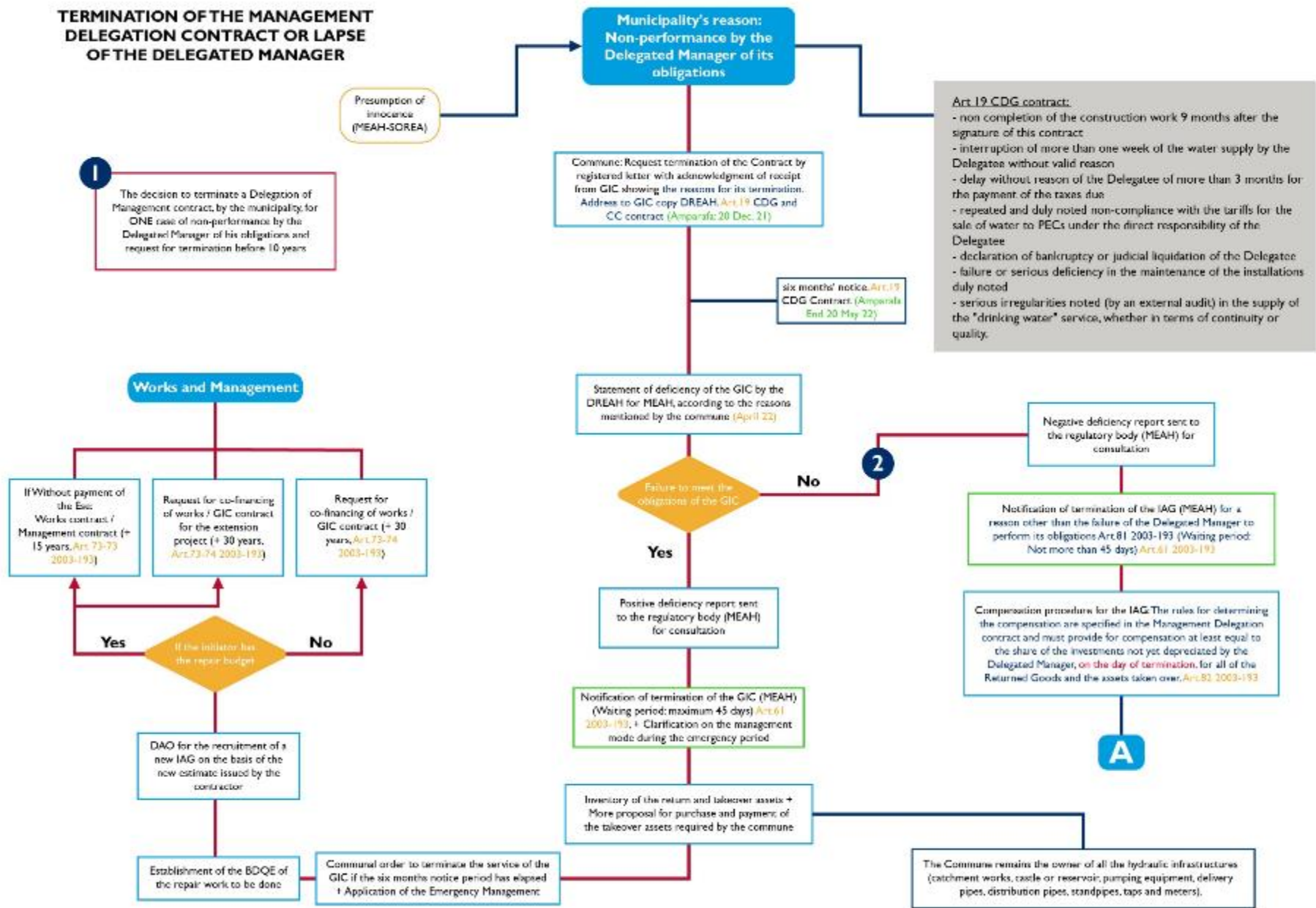
- non completion of the construction work 9 months after the signature of this contract
- interruption of more than one week of the water supply by the Delegatee without valid reason
- delay without reason of the Delegatee of more than 3 months for the payment of the taxes due
- repeated and duly noted non-compliance with the tariffs for the sale of water to PECs under the direct responsibility of the Delegatee
- declaration of bankruptcy or judicial liquidation of the Delegatee
- failure or serious deficiency in the maintenance of the installations duly noted
- serious irregularities noted (by an external audit) in the supply of the "drinking water" service, whether in terms of continuity or quality.

#### Valid reasons for termination of the Contract by the Delegatee

- refusal of the project owner to update the tariffs when this update was made in accordance with the legal provisions.
- refusal of the Owner to ensure satisfactory protection of the installations and retailers, as well as the personnel mobilized by the Delegatee
- inability to renew (or refurbish) facilities due to inadequacy or failure to manage contract funds.

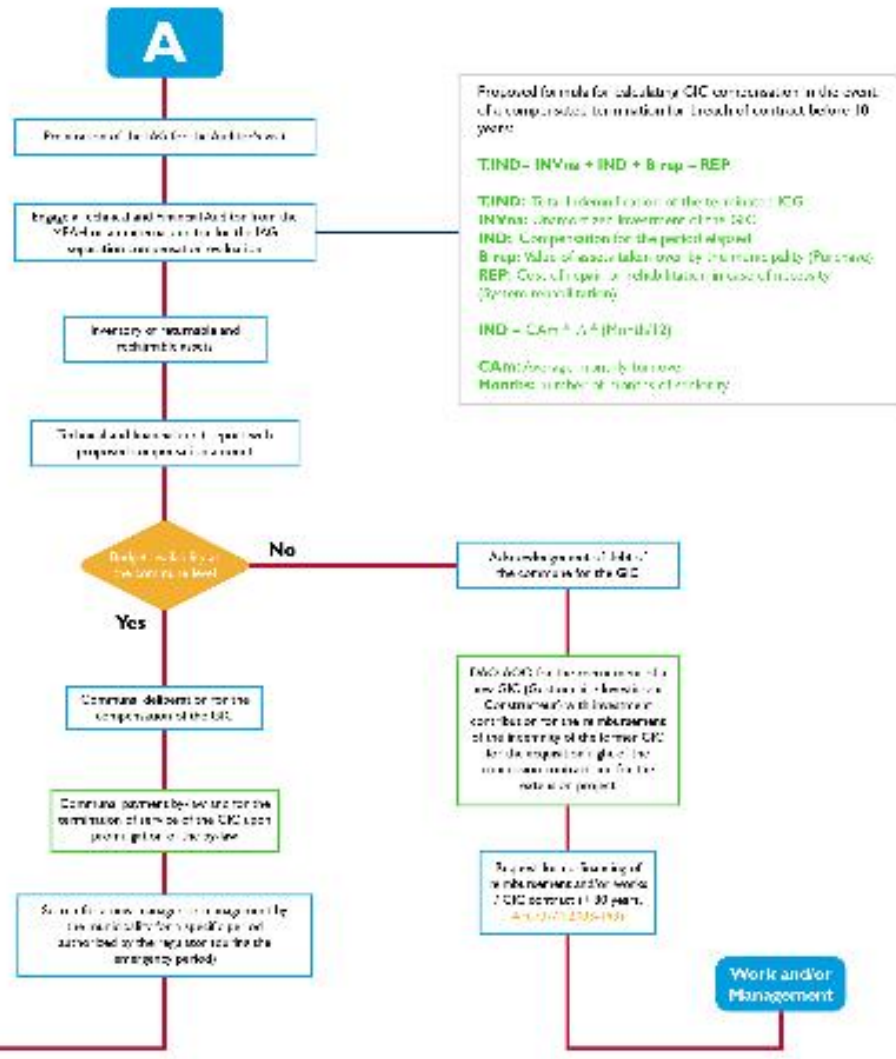
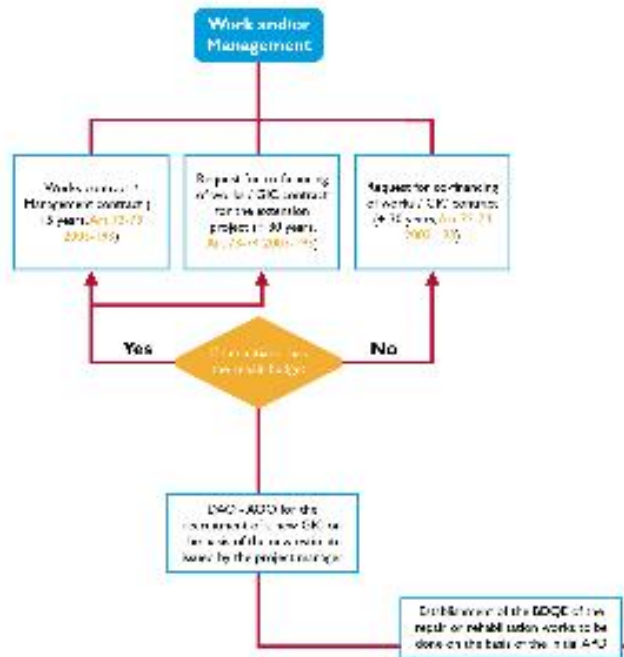
Rural Access to New Opportunities in Water, Sanitation, And Hygiene  
 RANO WASH FY2022 Quarter 4 & Annual Report – Annexes

**TERMINATION OF THE MANAGEMENT DELEGATION CONTRACT OR LAPSE OF THE DELEGATED MANAGER**



**TERMINATION OF THE MANAGEMENT DELEGATION CONTRACT OR LAPSE OF THE DELEGATED MANAGER**

Compensation procedure for the GIC: The rules for determining the compensation must provide for compensation at least equal to the value of the investments originally made by the Delegated Manager, less the contribution for the use of the Beneficial Goods and the same plus a year. *Annex 2000-03*



## ANNEX 27. TERMINATION OF AMPARAFARAVOLA MANAGEMENT CONTRACT

The contract concerned here is the management delegation contract, and the contract for the construction of the works with EGC Tamby for Amparafaravola already concluded between the commune and him on June 10, 2020. After one year of management, the works are not yet definitively accepted following major anomalies and a poor quality of service offered by the manager in place. In order to carry out our PPP approach, in its practical part, it is therefore important for us to understand the steps already taken and the next steps to follow while respecting the law in the steps taken and the future steps.

This is important because knowing the steps to follow, in our case, allows us to establish a legal process to follow in case of non-performance of contractual obligations under the PPP contract.

In the framework of the delegated management of drinking water supply services, this is a unique case. The process is still ongoing, so it is important to follow it and accompany the municipality and the WSP.

In the process of termination of the two contracts, including the management delegation contract and the construction contract, they are treated differently and according to the contracting parties.

### **1) PPP delegation contract: (Concluded between the commune and the WSP)**

In the process of legalizing the management delegation contract, the MEAH intervenes in the agreement part of the contract. Without its final approval, this contract cannot be valid. Then, in the reverse process, including the termination, it plays the same role but for the notification of the termination or not of the management delegation contract. For it is the provisional regulatory body in the absence of the SOREA

In the absence of responsiveness from the central Ministry of Water, Sanitation and Hygiene to take the position of the regulatory body, to pronounce the termination of the contract with EGC Tamby, the commune has referred the matter to the court of first instance of Ambatondrazaka.

According to the contract, in case of dispute settlement, the court of the place of performance of the contract has jurisdiction. Hence the reference to the court.

With the support of WaterAid, the Mayor is notified by the court to take a new bailiff at the level of Tana to solve the problem of territorial incompetence of the former bailiff, because the delegate is based in Tana.

The bailiff will thus be mandated by the court to seize the Director of the EGC Tamby that a case concerning her is referred to the court of first instance of Ambatondrazaka.

A hearing is thus planned after the reception of this notice.



### Steps for the termination of PPP contract and awarding new PPP contract

#### Step 1

The applicant makes an appointment at MEAH. Collection and verification by the MEAH contracting support officer of the documents required for the delegation of management contract application

#### Step 2

Transcription of the information collected from the applicant in the national model contract mask, by the MEAH agent

#### Step 3

Second verification of the information collected and recorded during the first registration, by the MEAH agent,

#### Step 4

Third verification of the information recorded by the contractors (Mayors and the company GIC) in the presence of a MEAH agent,

#### Step 5

Payment of the registration and publishing fee for the contract in the amount of 400,000Ar (Ex)

#### Step 6

Delivery to the applicant of the receipt of proof of filing of the application. The file is transmitted, by dematerialized way, to the instructing service (also called DAJ) for analysis,

#### Step 7

Receipt of the digital file by the instructing service which studies and validates it. Transmission by dematerialized way to the National Printing Office,

#### Step 8

Production of the contract by the National Printing Office in six copies and direct shipment to MAEH 72 hours after receipt,

#### Step 9

Receipt of the contract at the MEAH for the Minister's approval and sending of an SMS to the applicant to inform him that he can pick up his contract accompanied by the Mayor for the signature of the six copies

### CASE OPTIONS

After the study of the case, each party and the contract of delegation of management, the court will be able to settle the dispute by pursuing the procedure of conciliation and arbitration of the competent institutions of the Republic of Madagascar. It is to be noted that, the members of the arbitration commission can be and/or will be pronounced and constituted probably by the contractors (Commune and EGC Tamby), the ministry in charge of drinking water, and other member of competent institution according to the Malagasy law under the aegis of the court.

The termination of the management delegation contract can be pronounced either in favor of the commune, in which case the WSP cannot be compensated. In the opposite case, where the request for termination is deemed abusive, the commune is obliged to compensate the IAG for its departure (according to Article 81 of the implementing decree 2003-193 and according to the contract) or

an arrangement will be made in the case of the choice of the two to continue the route together, which is probably uncertain.

The steps described here are in addition to the processes for termination of delegated management contracts previously submitted in our report on the termination notification section by MEAH.

**I) Construction contract:** (Concluded between WaterAid Madagascar and the company EGC Tamby)

Following the letter of formal notice sent by WaterAid to the construction company EGC Tamby, that the company is failing and has not taken any corrective action on the defects found and already mentioned in the letter of formal notice of November 10, 2021. WaterAid has taken the decision to seize the EGC Tamby via a bailiff who has territorial jurisdiction in Tana, via a letter of redress and notice to complete the work, at the expense of WaterAid (of the project) using the 5% of retention of guarantee, by another construction company that has the competence to do so before the end of the project. In such a case of dispute, the legality of receiving this letter will be in accordance with the law based on the service of process by a bailiff.

Following the letter of formal notice sent by WaterAid to the construction company EGC Tamby, that the company is failing and has not taken any corrective action on the defects found and already mentioned in the letter of formal notice of November 10 2021. WaterAid has taken the decision to seize the EGC Tamby via a bailiff territorially competent in Tana, via a letter of redress and formal notice to complete the work, at the expense of WaterAid (of the project) by surely using the 5% of retention of guarantee, by another construction company that has the competence to do so before the end of the project

## ANNEX 28. LIST OF WSPS, APS AND APD Q4.22

### WATER SERVICE PROVIDERS PER REGION AND SITE

N°	REGION	DISTRICT	COMMUNE	SITE	ENTERPRISE
1	Alaotra Mangoro	Amparafaravola	Amparafaravola	Ambongabe	EGC TAMBY
2	Alaotra Mangoro	Amparafaravola	Amparafaravola	Betatamo	EGC TAMBY
3	Alaotra Mangoro	Amparafaravola	Morarano Chrome	Morarano Chrome	LOVA VELU
4	Alaotra Mangoro	Moramanga	Anosibe Ifody	Ambodinifody	RANO AN'ALA B
5	Alaotra Mangoro	Moramanga	Anosibe Ifody	Tsarafasina	RANO AN'ALA B
6	Alaotra Mangoro	Moramanga	Sabotsy Anjiro	Sabotsy Anjiro	RPIJ
7	Alaotra Mangoro	Moramanga	Beforona	Beforona	ACOGEMA
8	Alaotra Mangoro	Moramanga	Morarano Gara	Morarano Gara	RANO AN'ALA B
9	Alaotra Mangoro	Moramanga	Beforona	Ambinanisoavolo	ACOGEMA
10	Alaotra Mangoro	Moramanga	Beforona	Marolafa	ACOGEMA
11	Alaotra Mangoro	Moramanga	Beforona	Marozevo/Soakambana	ACOGEMA
12	Amoron'i Mania	Ambositra	Ilaka Centre	Ilaka Centre	AΠR
13	Amoron'i Mania	Ambositra	Ivato	Ivato Centre	AΠR
14	Amoron'i Mania	Manandriana	Ambatomarina	Ambatomarina	ACOGEMA
15	Atsinanana	Brickaville	Andovoranto	Ambila Lemaitso	AΠR
16	Atsinanana	Brickaville	Ranomafana Est	Ranomafana Est	LOVA VELU
17	Atsinanana	Brickaville	Mahatsara	Mahatsara	2 ADH
18	Atsinanana	Brickaville	Fetraomby	Fetraomby	SEDERA
19	Atsinanana	Toamasina II	Mahavelona Foulpointe	Mahavelona-Foulpointe	SANDANDRANO
20	Atsinanana	Toamasina II	Ampasimbe Onibe	Ampasimbe Onibe	CREAT BTP
21	Atsinanana	Toamasina II	Sahambala	Sahambala	CREAT BTP
22	Atsinanana	Toamasina II	Sahambala	Ambalakondro	CREAT BTP
23	Atsinanana	Toamasina II	Ampasimadinika	Ampasimadinika	2 ADH
24	Atsinanana	Toamasina II	Amboditandroroho	Mahatsara	EATC
25	Atsinanana	Toamasina II	Amboditandroroho	Amboditandroroho	EATC
26	Atsinanana	Toamasina II	Amboditandroroho	Amboakarivo	EATC
27	Atsinanana	Toamasina II	Sahambala	Maroangivy	CREAT BTP
28	Atsinanana	Toamasina II	Sahambala	Ambodirafia	CREAT BTP
29	Atsinanana	Toamasina II	Sahambala	Sahavongo	CREAT BTP
30	Atsinanana	Toamasina II	Fanandrana	Fanandrana	NMS
31	Atsinanana	Toamasina II	Ambodiriana	Ambodiriana	CREAT BTP

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N°	REGION	DISTRICT	COMMUNE	SITE	ENTERPRISE
32	Atsinanana	Toamasina II	Ambodiriana	Analamangahazo	CREAT BTP
33	Atsinanana	Toamasina II	Ambodiriana	Fontsimavo	CREAT BTP
34	Atsinanana	Vatomandry	Ilaka Est	Ilaka-Est	LOVA VELU
35	Atsinanana	Vatomandry	Niarovana Caroline	Niarovana Caroline	2 ADH
36	Fitovinany	Ikongo	Ambatofotsy	Ambalatenina	MICKAEL
37	Fitovinany	Ikongo	Ambatofotsy	Ambatofotsy	MICKAEL
38	Fitovinany	Ikongo	Ambatofotsy	Ambodiara sakorihy	MICKAEL
39	Fitovinany	Ikongo	Manampatrana	Manampatrana	MICKAEL
40	Fitovinany	Manakara Atsimo	Fenomby	Fenomby	FITAHIANA
41	Fitovinany	Manakara Atsimo	Ampasimanjeva	Ampasimanjeva	EC ABRAHAM
42	Fitovinany	Manakara Atsimo	Vohimasina Nord	Vohimasina Nord	FITAHIANA
43	Fitovinany	Vohipeno	Andemaka	Andemaka	BUSHPROOF
44	Fitovinany	Vohipeno	Lokomby	Lokomby	MICKAEL
45	Fitovinany	Vohipeno	Ambohitrova	Ambohitrova	MICKAEL
46	Fitovinany	Vohipeno	Vohitrindry	Vohitrindry	EC ABRAHAM
47	Fitovinany	Vohipeno	Mahazoarivo	Mahazoarivo	MICKAEL
48	Haute Matsiatra	Ambalavao	Andrainjato	Andrainjato	MICKAEL
49	Haute Matsiatra	Ambalavao	Namoly	Namoly	MIHARINTSOA
50	Haute Matsiatra	Ambalavao	Sendrisoa	Sendrisoa	MIHARINTSOA
51	Haute Matsiatra	Lalangina	Androy	Androy	MICKAEL
52	Haute Matsiatra	Lalangina	Andrainjato Est	Andrainjato Est	SECOA
53	Haute Matsiatra	Lalangina	Ambalamahasoa	Ambalamahasoa	MICKAEL
54	Haute Matsiatra	Vohibato	Andranovorivato	Andranovorivato	LAZA
55	Haute Matsiatra	Vohibato	Andranomiditra	Andranomiditra	MICKAEL
56	Haute Matsiatra	Vohibato	Ihazoara	Ihazoara	MICKAEL
57	Vakinankaratra	Antsirabe II	Ambohitsimanova	Ambohitsimanova	ACOGEMA
58	Vakinankaratra	Antsirabe II	Soanindrarinny	Soanindrarinny	EC ABRAHAM
59	Vakinankaratra	Antsirabe II	Antsoatany	Antsoatany	2ADH
60	Vakinankaratra	Betafo	Ambohimanambola	Ambohimanambola	ACOGEMA
61	Vatovavy	Ifanadiana	Kelilalina	Kianjanomby	MICKAEL
62	Vatovavy	Ifanadiana	Antaretra	Antaretra	MICKAEL
63	Vatovavy	Mananjary	Andonabe	Andonabe	ECOWIN
64	Vatovavy	Mananjary	Namorona	Namorona	FITAHIANA

LIST OF TECHNICAL SCOPING STUDIES (AVANT PROJET SOMMAIRES) APS

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N°	Region	District	Commune	Site	Prepared by	Period
1	Fitovinany	Vohipeno	Andemaka	Andemaka	BushProof	FY18
2	Fitovinany	Vohipeno	Vohitrindry	Vohitrindry	BushProof	FY18
3	Vatovavy	Ifanadiana	Kelilalina	Kelilalina	BushProof	FY18
4	Fitovinany	Ikongo	Ambatofotsy	Ambatofotsy	BushProof	FY18
5	Fitovinany	Ikongo	Tolongoina	Tolongoina	BushProof	FY18
6	Alaoatra Mangoro	Moramanga	Beforona	Beforona	Sandandrano	FY18
7	Alaoatra Mangoro	Moramanga	Andasibe	Andasibe	Sandandrano	FY18
8	Atsinanana	Brickaville	Ambohimanana	Ambohimanana	BushProof	FY18
9	Atsinanana	Toamasina II	Ambodilazana	Ambodilazana	BushProof	FY18
10	Atsinanana	Brickaville	Ambinaninony	Ambinaninony	BushProof	FY18
11	Atsinanana	Vatomandry	Niarovana Caroline	Niarovana Caroline	BushProof	FY18
12	Atsinanana	Toamasina II	Andondabe	Andondabe	BushProof	FY18
13	Atsinanana	Toamasina II	Ampasimbe Onibe	Ampasimbe Onibe	BushProof	FY18
14	Atsinanana	Brickaville	Andovoranto	Andovoranto	Sandandrano	FY18
15	Atsinanana	Brickaville	Ranomafana Est	Ranomafana Est	Sandandrano	FY18
16	Atsinanana	Vatomandry	Tsarasambo	Tsarasambo	Sandandrano	FY18
17	Atsinanana	Toamasina II	Mahavelona	Marofarihy	Sandandrano	FY18
18	Fitovinany	Manakara	Amboanjo	Amboanjo	BushProof	FY19 Q1
19	Atsinanana	Toamasina II	Ambodiriana	Ambodiriana	BushProof	FY19 Q1
20	Atsinanana	Vatomandry	Ambodivoananto	Ambodivoananto	BushProof	FY19 Q1
21	Atsinanana	Manambolo	Ampasimadinika	Ampasimadinika	BushProof	FY19 Q1
22	Atsinanana	Vatomandry	Ampasimadinika	Ampasimadinika	BushProof	FY19 Q1
23	Fitovinany	Manakara	Agnorombato	Agnorombato	BushProof	FY19 Q1
24	Vatovavy	Ifanadiana	Antaretra	Antaretra	BushProof	FY19 Q1
25	Fitovinany	Vohipeno	Mahabo	Mahabo	BushProof	FY19 Q1
26	Fitovinany	Vohipeno	Mahasoabe	Mahasoabe	BushProof	FY19 Q1
27	Atsinanana	Brickaville	Mahatsara	Mahatsara	BushProof	FY19 Q1
28	Fitovinany	Ikongo	Maromiandra	Maromiandra	BushProof	FY19 Q1
29	Atsinanana	Vatomandry	Niherenana	Niherenana	BushProof	FY19 Q1
30	Atsinanana	Vatomandry	Sahamatevina	Sahamatevina	BushProof	FY19 Q1
31	Vatovavy	Ifanadiana	Tsaratanana	Tsaratanana	BushProof	FY19 Q1
32	Atsinanana	Brickaville	Ranomafana Est	Antongombato	Sandandrano	FY19 Q2
33	Alaoatra Mangoro	Ambatondrazaka	Ambohitsilaozana	Ambohitsilaozana	Sandandrano	FY19 Q2
34	Fitovinany	Ikongo	Ambinanitromby	Ambinanitromby	Sandandrano	FY19 Q2
35	Fitovinany	Ikongo	Ambatofotsy	Ambatofotsy	Sandandrano	FY19 Q2
36	Fitovinany	Ikongo	Ambatofotsy	Tsarakianja	Sandandrano	FY19 Q2
37	Fitovinany	Ikongo	Manampatrana	Manampatrana	Sandandrano	FY19 Q2
38	Atsinanana	Toamasina II	Mahavelona	Bongabe	Sandandrano	FY19 Q2
39	Fitovinany	Ikongo	Ambatofotsy	Ambalatenina	Sandandrano	FY19 Q2
40	Alaoatra Mangoro	Amparafaravola	Amparafaravola	Amparafaravola	Sandandrano	FY19 Q2
41	Alaoatra Mangoro	Moramanga	Sabotsy Anjiro	Mahasoia Miaramiasa	Sandandrano	FY19 Q2
42	Alaoatra Mangoro	Amparafaravola	Amparafaravola	Antsakoana	Sandandrano	FY19 Q2
43	Alaoatra Mangoro	Moramanga	Ambohibary	Ampitambe	Sandandrano	FY19 Q2
44	Alaoatra Mangoro	Amparafaravola	Amparafaravola	Ampilahoana	Sandandrano	FY19 Q2
45	Alaoatra Mangoro	Amparafaravola	Tanambe	Amborompotsy	Sandandrano	FY19 Q2
46	Alaoatra Mangoro	Moramanga	Ambohidronono	Ambohidronono	Sandandrano	FY19 Q2

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47	Alaotra Mangoro	Moramanga	Anosibe Ifody	Ambodinifody	Sandandrano	FY19 Q2
48	Alaotra Mangoro	Moramanga	Morarano Gara	Morarano Gara	Sandandrano	FY19 Q2
49	Alaotra Mangoro	Moramanga	Belavabary	Marovitsika	Sandandrano	FY19 Q2
50	Alaotra Mangoro	Moramanga	Belavabary	Belavabary	Sandandrano	FY19 Q2
51	Alaotra Mangoro	Ambatondrazaka	Andilantoby	Andilantoby	BushProof	FY19 Q4
52	Alaotra Mangoro	Ambatondrazaka	Bejofo	Bejofo	BushProof	FY19 Q4
53	Atsinanana	Vatomandry	Ambalavolo	Ambalavolo	BushProof	FY19 Q4
54	Atsinanana	Vatomandry	Amboditavolo	Amboditavolo	BushProof	FY19 Q4
55	Atsinanana	Vatomandry	Iamborano	Iamborano	BushProof	FY19 Q4
56	Atsinanana	Vatomandry	Tanambao Vahatrakaka	Tanambao Vahatrakaka	BushProof	FY19 Q4
57	Vatovavy	Ifanadiana	Ambiabe	Ambiabe	BushProof	FY19 Q4
58	Fitovinany	Ikongo	Ambinanitromby	Ambinanitromby	BushProof	FY19 Q4
59	Fitovinany	Manakara	Ambotaka	Ambotaka	BushProof	FY19 Q4
60	Fitovinany	Manakara	Analavory	Analavory	BushProof	FY19 Q4
61	Fitovinany	Vohipeno	Ankarimbary	Ankarimbary	BushProof	FY19 Q4
62	Fitovinany	Vohipeno	Anoloka	Anoloka	BushProof	FY19 Q4
63	Fitovinany	Vohipeno	Ilakatra	Ilakatra	BushProof	FY19 Q4
64	Fitovinany	Vohipeno	Nato	Nato	BushProof	FY19 Q4
65	Fitovinany	Vohipeno	Savana	Savana	BushProof	FY19 Q4
66	Alaotra Mangoro	Amparafaravola	Morarano Chrome	Morarano Chrome	Sandandrano	FY20 Q1
67	Alaotra Mangoro	Moramanga	Mandialaza	Mandialaza	Sandandrano	FY20 Q1
68	Alaotra Mangoro	Moramanga	Lakato	Lakato	BushProof	FY20 Q1
69	Alaotra Mangoro	Ambatondrazaka	Amparihintsokatra	Amparihintsokatra	BushProof	FY20 Q1
70	Vakinankaratra	Antsirabell	Ambohitsimano	Ambohitsimano	Sandandrano	FY20 Q1
71	Alaotra Mangoro	Amparafaravola	Ambohitrarivo	Ambohitrarivo	Sandandrano	FY20 Q1
72	Alaotra Mangoro	Moramanga	Andaingo	Andaingo	Sandandrano	FY20 Q1
73	Alaotra Mangoro	Ambatondrazaka	Imerimandroso	Imerimandroso	Sandandrano	FY20 Q1
74	Alaotra Mangoro	Moramanga	Antaniditra	Antaniditra	Sandandrano	FY20 Q1
75	Vakinankaratra	Antsirabell	Antsoatany	Antsoatany	Sandandrano	FY20 Q2
76	Vakinankaratra	Antsirabell	Soanindrariny	Soanindrariny	Sandandrano	FY20 Q2
77	Atsinanana	Brickaville	Ampasimbe	Ampasimbe	Sandandrano	FY20 Q3
78	Atsinanana	Toamasina II	Andranobolahy	Andranobolahy	Sandandrano	FY20 Q3
79	Atsinanana	Toamasina II	Fanandrana	Fanandrana	Sandandrano	FY20 Q3
80	Atsinanana	Brickaville	Vohipeno Razanaka	Vohipeno Razanaka	Sandandrano	FY20 Q3
81	Haute Matsiatra	Lalangina	Ambalamahaso	Ambalamahaso	BushProof	FY20 Q3
82	Haute Matsiatra	Lalangina	Andrainjato-Est	Andrainjato-Est	BushProof	FY20 Q3
83	Haute Matsiatra	Lalangina	Androy	Androy	BushProof	FY20 Q3

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N°	Region	District	Commune	Site	Prepared by	Period
84	Haute Matsiatra	Vohibato	Maneva	Maneva	BushProof	FY20 Q3
85	Haute Matsiatra	Vohibato	Vinanitelo	Vinanitelo	BushProof	FY20 Q3
86	Haute Matsiatra	Vohibato	Andranomiditra	Andranomiditra	BushProof	FY20 Q3
87	Amoron'i Mania	Fandriana	Alakamisy Ambohimahazo	Alakamisy Ambohimahazo	Sandandrano	FY20 Q3
88	Amoron'i Mania	Ambositra	Ambatofitorahana	Ambatofitorahana	Sandandrano	FY20 Q3
89	Amoron'i Mania	Manandriana	Ambatomarina	Ambatomarina	Sandandrano	FY20 Q3
90	Amoron'i Mania	Ambositra	Ilaka Centre	Ilaka Centre	Sandandrano	FY20 Q3
91	Amoron'i Mania	Ambositra	Ivato Centre	Ivato Centre	Sandandrano	FY20 Q3
92	Amoron'i Mania	Ambositra	Kianjandrakefina	Kianjandrakefina	Sandandrano	FY20 Q3
93	Amoron'i Mania	Ambositra	Marosoa	Marosoa	Sandandrano	FY20 Q3
94	Amoron'i Mania	Ambositra	Sahatsiho Ambohimanjaka	Sahatsiho Ambohimanjaka	Sandandrano	FY20 Q3
95	Amoron'i Mania	Ambositra	Ambalamanakana	Ambalamanakana	Sandandrano	FY20 Q4
96	Amoron'i Mania	Manandriana	Ambohimiranjanja	Ambohimiranjanja	Sandandrano	FY20 Q4
97	Amoron'i Mania	Fandriana	Ankarinoro	Ankarinoro	Sandandrano	FY20 Q4
98	Amoron'i Mania	Ambositra	Ankazoambo	Ankazoambo	Sandandrano	FY20 Q4
99	Amoron'i Mania	Fandriana	Fiadanana	Fiadanana	Sandandrano	FY20 Q4
100	Amoron'i Mania	Fandriana	Isandrandahy Ambony	Isandrandahy Ambony	Sandandrano	FY20 Q4
101	Amoron'i Mania	Ambositra	Tsarasaotra	Tsarasaotra	Sandandrano	FY20 Q4
102	Haute Matsiatra	Ambalavao	Ambohimirandroso	Ambohimirandroso	BushProof	FY20 Q4
103	Haute Matsiatra	Ambalavao	Andrainjato	Andrainjato	BushProof	FY20 Q4
104	Haute Matsiatra	Vohibato	Ankaromalaza	Ankaromalaza	BushProof	FY20 Q4
105	Haute Matsiatra	Ambalavao	Besoa	Besoa	BushProof	FY20 Q4
106	Haute Matsiatra	Lalangina	Fandrandava	Fandrandava	BushProof	FY20 Q4
107	Fitovinany	Vohipeno	Mahazoarivo	Mahazoarivo	Sandandrano	FY21 Q1
108	Vatovavy	Mananjary	Andonabe	Andonabe	Sandandrano	FY21 Q1
109	Fitovinany	Manakara	Ampasimanjeva	Ampasimanjeva	BushProof	FY21 Q1
110	Fitovinany	Manakara	Fenomby	Fenomby	BushProof	FY21 Q1
111	Vatovavy	Mananjary	Namorona	Namorona	BushProof	FY21 Q1
112	Vatovavy	Ifanadiana	Androrangavola	Androrangavola	BushProof	FY21 Q1
113	Fitovinany	Ikongo	Ankarimbelo	Ankarimbelo	BushProof	FY21 Q1

LIST OF DETAILED PROJECT DESIGNS / AVANT-PROJET DÉTAILLÉS (APD)

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N°	Region	District	Commune	Site	Prepared by	Period	Valid.
1	Alaotra Mangoro	Moramanga	Beforona	Beforona	Sandandrano	FY18	Y
2	Alaotra Mangoro	Moramanga	Andasibe	Andasibe	Sandandrano	FY18	Y
3	Atsinanana	Toamasina II	Mahavelona	Foulpointe	Sandandrano	FY18	Y
4	Atsinanana	Vatomandry	Ilaka	Ilaka Est	Sandandrano	FY18	Y
5	Atsinanana	Brickaville	Ranomafana	Ranomafana Est	Sandandrano	FY18	Y
6	Atsinanana	Toamasina II	Ampasimbe Onibe	Ampasimbe Onibe	BushProof	FY18	Y
7	Atsinanana	Toamasina II	Ambinaninony	Ambinaninony	BushProof	FY18	Y
8	Atsinanana	Brickaville	Andovoranto	Ambila Lemaitso	Sandandrano	FY18	Y
9	Atsinanana	Toamasina II	Ambodilazana	Ambodilazana	BushProof	FY18	Y
10	Fitovinany	Ikongo	Tolongoina	Tolongoina	BushProof	FY18	Y
11	Vatovavy	Ifanadiana	Kelilalina	Kianjanomby	BushProof	FY18	Y
12	Fitovinany	Vohipeno	Andemaka	Andemaka	BushProof	FY18	Y
13	Alaotra Mangoro	Moramanga	Sabotsy Anjiro	Sabotsy Anjiro	Sandandrano	FY18	Y
14	Fitovinany	Ikongo	Ambatofotsy	Ambatofotsy	BushProof	FY19 Q1	Y
15	Fitovinany	Ikongo	Ambatofotsy	Ambalatenina	BushProof	FY19 Q1	Y
16	Fitovinany	Ikongo	Ambatofotsy	Ambodiara Sakorihy	BushProof	FY19 Q1	Y
17	Vatovavy	Ifanadiana	Kelilalina	Kelilalina	BushProof	FY19 Q1	Y
18	Alaotra Mangoro	Amparafaravola	Amparafaravola	Betatamo	Sandandrano	FY19 Q3	Y
19	Alaotra Mangoro	Amparafaravola	Amparafaravola	Ambongabe	Sandandrano	FY19 Q3	Y
20	Alaotra Mangoro	Moramanga	Anosibe Ifody	Ambodinifody	BushProof	FY19 Q3	Y
21	Atsinanana	Vatomandry	Niarovana Caroline	Niarovana Caroline	Sandandrano	FY19 Q3	Y
22	Atsinanana	Brickaville	Mahatsara	Mahatsara	Sandandrano	FY19 Q3	Y
23	Atsinanana	Toamasina II	Ampasimadinika	Ampasimadinika	Sandandrano	FY19 Q3	Y
24	Vatovavy	Ifanadiana	Antaretra	Antaretra	BushProof	FY19 Q3	Y



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N°	Region	District	Commune	Site	Prepared by	Period	Valid.
25	Fitovinany	Ikongo	Manampatrana	Manampatrana	BushProof	FY19 Q3	Y
26	Fitovinany	Manakara	Lokomby	Lokomby	BushProof	FY19 Q3	Y
27	Alaotra Mangoro	Amparafaravola	Morarano Chrome	Morarano Chrome	Sandandrano	FY20 Q1	Y
28	Atsinanana	Brickaville	Ranomafana Est	Antongobato	Sandandrano	FY20 Q1	Y
29	Atsinanana	Brickaville	Andovoranto	Andovoranto	Sandandrano	FY20 Q1	Y
30	Atsinanana	Vatomandry	Tsarasambo	Tsarasambo	Sandandrano	FY20 Q1	Y
31	Fitovinany	Manakara	Amboanjo	Amboanjo	BushProof	FY20 Q1	Y
32	Fitovinany	Vohipeno	Mahabo	Mahabo	BushProof	FY20 Q1	Y
33	Fitovinany	Vohipeno	Mahasoabe	Mahasoabe	BushProof	FY20 Q1	Y
34	Fitovinany	Manakara	Marofarihy	Marofarihy	BushProof	FY20 Q1	Y
35	Fitovinany	Ikongo	Maromiandra	Maromiandra	BushProof	FY20 Q1	Y
36	Fitovinany	Vohipeno	Vohitrindry	Vohitrindry	BushProof	FY20 Q1	Y
37	Haute Matsiatra	Lalangina	Androy	Androy	BushProof	FY20 Q3	Y
38	Haute Matsiatra	Vohibato	Andranomiditra	Andranomiditra	BushProof	FY20 Q3	Y
39	Vakinankaratra	Antsirabe II	Ambohitsimanova	Ambohitsimanova	Sandandrano	FY20 Q3	Y
40	Vakinankaratra	Antsirabe II	Antsoatany	Antsoatany	Sandandrano	FY20 Q3	Y
41	Vakinankaratra	Antsirabe II	Soanindrarinny	Soanindrarinny	Sandandrano	FY20 Q3	Y
42	Alaotra Mangoro	Moramanga	Anosibe Ifody	Ankarefo Tsaramiafara	BushProof	FY20 Q4	Y
43	Amoron'i Mania	Ambositra	Ambatofitorahana	Ambatofitorahana	Sandandrano	FY20 Q4	Y
44	Amoron'i Mania	Manandriana	Ambatomarina	Ambatomarina	Sandandrano	FY20 Q4	Y
45	Amoron'i Mania	Ambositra	Ilaka Centre	Ilaka Centre	Sandandrano	FY20 Q4	Y

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N°	Region	District	Commune	Site	Prepared by	Period	Valid.
46	Amoron'i Mania	Ambositra	Ivato Centre	Ivato Centre	Sandandrano	FY20 Q4	Y
47	Haute Matsiatra	Lalangina	Ambalamahasoa	Ambalamahasoa – Andranomenjaza - Miandrarivo	BushProof	FY20 Q4	Y
48	Haute Matsiatra	Lalangina	Ambalamahasoa	Vohidravina	BushProof	FY20 Q4	Y
49	Haute Matsiatra	Ambalavao	Andrainjato	Andrainjato	BushProof	FY20 Q4	Y
50	Haute Matsiatra	Lalangina	Andrainjato Est	Andrainjato Est	BushProof	FY20 Q4	Y
51	Haute Matsiatra	Vohibato	Vinanitelo Ouest	Vinanitelo Ouest	BushProof	FY21 Q1	Y
52	Haute Matsiatra	Vohibato	Maneva Andrefana	Maneva Andrefana	BushProof	FY21 Q1	N
53	Alaotra Mangoro	Amparafaravola	Ambohitrarivo	Ambohitrarivo	Sandandrano	FY21 Q1	N
54	Alaotra Mangoro	Ambatondrazaka	Imerimandroso	Imerimandroso	Sandandrano	FY21 Q1	N
55	Alaotra Mangoro	Moramanga	Morarano Gara	Morarano Gara	Sandandrano	FY21 Q1	N
56	Amoron'i Mania	Ambositra	Sahatsiho Ambohimanjaka	Sahatsiho Ambohimanjaka	Sandandrano	FY21 Q1	Y
57	Amoron'i Mania	Ambositra	Tsarasaotra	Tsarasaotra	Sandandrano	FY21 Q1	Y
58	Vakinankaratra	Antanifotsy	Ambohimandroso Ambatotsipihina	Ambohimandroso Ambatotsipihina	Sandandrano	FY21 Q1	N
59	Vakinankaratra	Betafo	Ambohimanambola	Ambohimanambola	Sandandrano	FY21 Q1	N
60	Fitovinany	Ikongo	Ankarimbelo	Ankarimbelo	BushProof	FY21 Q1	N
61	Vatovavy	Ifanadiana	Androrangavola	Androrangavola	BushProof	FY21 Q1	N
62	Fitovinany	Manakara	Vohimasina Nord	Vohimasina Nord	BushProof	FY21 Q1	N
63	Fitovinany	Manakara	Fenomby	Fenomby	BushProof	FY21 Q1	Y
64	Vatovavy	Mananjary	Namorona	Namorona	BushProof	FY21 Q1	Y
65	Vatovavy	Ifanadiana	Tsaratana	Tsaratana	BushProof	FY21 Q1	Y

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N°	Region	District	Commune	Site	Prepared by	Period	Valid.
66	Alaotra Mangoro	Amparafaravola	Ambohijanahary	Ambohijanahary, Morarano, Tanambaolaina	BushProof	FY21 Q2	Y
67	Alaotra Mangoro	Ambatondrazaka	Amparihintsokatra	Amparihintsokatra	BushProof	FY21 Q2	Y
68	Fitovinany	Mananjary	Andonabe	Andonabe	Sandandrano	FY21 Q2	Y
69	Fitovinany	Vohipeno	Mahazoarivo	Mahazoarivo	Sandandrano	FY21 Q2	Y
70	Haute Matsiatra	Ambalavao	Sendrisoa	Sendrisoa	CARE	FY21 Q3	N
71	Haute Matsiatra	Vohibato	Andranovorivato	Andranovorivato	Enterprise LAZA	FY21 Q3	N
72	Atsinanana	Vatomandry	Ambalavolo	Ambalavolo	BushProof	FY Q3	N
73	Atsinanana	Vatomandry	Ambalavolo	Tanandava	BushProof	FY Q3	N
74	Atsinanana	Vatomandry	Ambodivoananto	Marosampanana	BushProof	FY Q3	N
75	Atsinanana	Vatomandry	Ambodivoananto	Tamboro	BushProof	FY Q3	N
76	Atsinanana	Brickaville	Ranomafana Est	Marovolavo	BushProof	FY Q3	N
77	Atsinanana	Toamasina II	Foulpointe	Ambohimanarivo	BushProof	FY Q3	N
78	Amoron'i Mania	Fandriana	Sandrandahy	Sandrandahy	CARE	FY Q3	N
79	Amoron'i Mania	Fandriana	Sahamadio	Fisakana	CARE	FY Q3	N
80	Vakinankaratra	Antanifotsy	Ambatotsipihina	Ambatotsipihina	Sandandrano	FY21 Q4	Y
81	Vakinankaratra	Antanifotsy	Ambatotsipihina	Ambatotsipihina	Sandandrano	FY21 Q4	Y
82	Atsinanana	Brickaville	Mahatsara	Maromby	Zararano	FY22 Q2	Y
83	Atsinanana	Toamasina II	Foulpointe	Bongabe	Sandandrano	FY22Q2	Y

USE OF APDs/DETAILED PROJECT DESIGN Q4.FY22

N°	Region	District	Municipality	Site	Situation / Status
1	Alaotra Mangoro	Moramanga	Beforona	Beforona	System in place- Operation and Maintenance
2	Alaotra Mangoro	Moramanga	Andasibe	Andasibe	APD Available
3	Alaotra Mangoro	Moramanga	Sabotsy Anjiro	Sabotsy Anjiro	System in place- Operation and Maintenance
4	Alaotra Mangoro	Amparafaravola	Amparafaravola	Betatamo	System in place- Operation and Maintenance
5	Alaotra Mangoro	Amparafaravola	Amparafaravola	Ambongabe	System in place- Operation and Maintenance
6	Alaotra Mangoro	Moramanga	Anosibe Ifody	Ambodinifody	System in place- Operation and Maintenance
7	Alaotra Mangoro	Amparafaravola	Morarano Chrome	Morarano Chrome	System in place- Operation and Maintenance
8	Alaotra Mangoro	Moramanga	Anosibe Ifody	Ankarefo Tsaramiafara	APD Available
9	Alaotra Mangoro	Amparafaravola	Ambohitrarivo	Ambohitrarivo	Profitability analysis in progress by Lova Velu Investor Company
10	Alaotra Mangoro	Ambatondrazaka	Imerimandroso	Imerimandroso	APD used in the WASH Fairs organized by RANO WASH
11	Alaotra Mangoro	Moramanga	Morarano Gara	Morarano Gara	System in place- Operation and Maintenance
12	Alaotra Mangoro	Amparafaravola	Ambohijanahary	Ambohijanahary, Morarano, Tanambaolaina	Profitability analysis in progress by NATURANO Investor Company for the management and construction with possible support of the Commune and its other financial partner (in progress)
13	Alaotra Mangoro	Ambatondrazaka	Amparihintsokatra	Amparihintsokatra	APD used in the WASH Fairs organized by RANO WASH
14	Amoron'i Mania	Ambositra	Ambatofitorahana	Ambatofitorahana	APD used in the WASH Fairs organized by RANO WASH
15	Amoron'i Mania	Manandriana	Ambatomarina	Ambatomarina	System in place- Operation and Maintenance
16	Amoron'i Mania	Ambositra	Ilaka Centre	Ilaka Centre	System in place- Operation and Maintenance

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N°	Region	District	Municipality	Site	Situation / Status
17	Amoron'i Mania	Ambositra	Ivato Center	Ivato Center	System in place- Operation and Maintenance
18	Amoron'i Mania	Ambositra	Sahatsiho Ambohimanjaka	Sahatsiho Ambohimanjaka	APD Available
19	Amoron'i Mania	Ambositra	Tsarasaotra	Tsarasaotra	APD used in the WASH Fairs organized by RANO WASH
20	Amoron'i Mania	Fandriana	Sandrandahy	Sandrandahy	APD used in the WASH Fairs organized by RANO WASH
21	Amoron'i Mania	Fandriana	Sahamadio	Fisakana	APD used in the WASH Fairs organized by RANO WASH
22	Atsinanana	Toamasina II	Mahavelona	Foulpointe	System in place- Operation and Maintenance
23	Atsinanana	Vatomandry	Ilaka	Ilaka East	System in place- Operation and Maintenance
24	Atsinanana	Brickaville	Ranomafana	Ranomafana East	System/PPP in place- Operation and Maintenance
25	Atsinanana	Toamasina II	Ampasimbe Onibe	Ampasimbe Onibe	System/PPP in place- Operation and Maintenance
26	Atsinanana	Toamasina II	Ambinaninony	Ambinaninony	System/PPP in place- Operation and Maintenance
27	Atsinanana	Brickaville	Andovoranto	Ambila Lemaitso	System/PPP in place- Operation and Maintenance
28	Atsinanana	Toamasina II	Ambodilazana	Ambodilazana	System/PPP in place- Operation and Maintenance
29	Atsinanana	Vatomandry	Niarovana Caroline	Niarovana Caroline	System/PPP in place- Operation and Maintenance
30	Atsinanana	Brickaville	Mahatsara	Mahatsara	System/PPP in place- Operation and Maintenance
31	Atsinanana	Toamasina II	Ampasimadinika	Ampasimadinika	System/PPP in place- Operation and Maintenance
32	Atsinanana	Brickaville	Ranomafana East	Antongobato	System/PPP in place- Operation and Maintenance
33	Atsinanana	Brickaville	Andovoranto	Andovoranto	System/PPP in place- Operation and Maintenance
34	Atsinanana	Vatomandry	Tsarasambo	Tsarasambo	System/PPP in place- Operation and Maintenance
35	Atsinanana	Vatomandry	Ambalavolo	Ambalavolo	APD used in the WASH Fairs organized by RANO WASH

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N°	Region	District	Municipality	Site	Situation / Status
36	Atsinanana	Vatomandry	Ambalavolo	Tanandava	APD used in the WASH Fairs organized by RANO WASH
37	Atsinanana	Vatomandry	Ambodivoananto	Marosampanana	APD used in the WASH Fairs organized by RANO WASH
38	Atsinanana	Vatomandry	Ambodivoananto	Tamboro	APD used in the WASH Fairs organized by RANO WASH
39	Atsinanana	Brickaville	Ranomafana East	Marovola	Available, ESF in validation process
40	Atsinanana	Toamasina II	Foulpointe	Ambohimamarivo	Available, ESF in validation process
41	Haute Matsiatra	Lalangina	Androy	Androy	System/PPP in place- Operation and Maintenance
42	Haute Matsiatra	Vohibato	Andranomiditra	Andranomiditra	APD used in the WASH Fairs organized by RANO WASH
43	Haute Matsiatra	Lalangina	Ambalamahasoa	Ambalamahasoa - Andranomenjaza - Miandrarivo	System/PPP in place- Operation and Maintenance
44	Haute Matsiatra	Lalangina	Ambalamahasoa	Vohidravina	APD Available
45	Haute Matsiatra	Ambalavao	Andrainjato	Andrainjato	System/PPP in place- Operation and Maintenance
46	Haute Matsiatra	Lalangina	Andrainjato East	Andrainjato East	System/PPP in place- Operation and Maintenance
47	Haute Matsiatra	Vohibato	Vinanitelo West	Vinanitelo West	Profitability analysis in progress by Eaurizon
48	Haute Matsiatra	Vohibato	Maneva Andrefana	Maneva Andrefana	APD Available
49	Haute Matsiatra	Ambalavao	Sendrisoa	Sendrisoa	APD used in the WASH Fairs organized by RANO WASH
50	Haute Matsiatra	Vohibato	Andranovorivato	Andranovorivato	System/PPP in place Operation and Maintenance Extension work in progress
51	Vakinankaratra	Antsirabe II	Ambohitsimanova	Ambohitsimanova	System/PPP in place- Operation and Maintenance
52	Vakinankaratra	Antsirabe II	Antsoatany	Antsoatany	System/PPP in place- Operation and Maintenance
53	Vakinankaratra	Antsirabe II	Soanindrariny	Soanindrariny	System/PPP in place- Operation and Maintenance

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N°	Region	District	Municipality	Site	Situation / Status
54	Vakinankaratra	Antanifotsy	Ambatotsipihina	Ambatotsipihina	ESF validated by USAID , waiting for UEI
55	Vakinankaratra	Betafo	Ambohimanambola	Ambohimanambola	ESF validated by USAID , waiting for UEI
56	Vakinankaratra	Antanifotsy	Ambohimandroso	Ambohimandroso	APD used by the investor company, Fanovozantsoa. Start of the system extension in progress.
57	Fitovinany	Ikongo	Tolongoina	Tolongoina	System/PPP in place- Operation and Maintenance
58	Vatovavy	Ifanadiana	Kelilalina	Kianjanomby	System/PPP in place- Operation and Maintenance
59	Fitovinany	Vohipeno	Andemaka	Andemaka	System/PPP in place- Operation and Maintenance
60	Fitovinany	Ikongo	Ambatofotsy	Ambatofotsy	System/PPP in place- Operation and Maintenance
61	Fitovinany	Ikongo	Ambatofotsy	Ambalatenina	System/PPP in place- Operation and Maintenance
62	Fitovinany	Ikongo	Ambatofotsy	Ambodiara Sakorihy	System/PPP in place- Operation and Maintenance
63	Vatovavy	Ifanadiana	Kelilalina	Kelilalina	APD Available & uploaded in SE&AM
64	Vatovavy	Ifanadiana	Antaretra	Antaretra	System/PPP in place- Operation and Maintenance
65	Fitovinany	Ikongo	Manampatrana	Manampatrana	System/PPP in place- Operation and Maintenance
66	Fitovinany	Manakara	Lokomby	Lokomby	System/PPP in place- Operation and Maintenance
67	Fitovinany	Manakara	Amboanjo	Amboanjo	APD Available & uploaded in SE&AM
68	Fitovinany	Vohipeno	Mahabo	Mahabo	APD Available & uploaded in SE&AM
69	Fitovinany	Vohipeno	Mahasoabe	Mahasoabe	APD Available & uploaded in SE&AM
70	Fitovinany	Manakara	Marofarihy	Marofarihy	APD Available & uploaded in SE&AM
71	Fitovinany	Ikongo	Maromiandra	Maromiandra	APD Available & uploaded in SE&AM
72	Fitovinany	Vohipeno	Vohitrindry	Vohitrindry	System/PPP in place- Operation and Maintenance

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N°	Region	District	Municipality	Site	Situation / Status
73	Fitovinany	Ikongo	Ankarimbelo	Ankarimbelo	APD Available & uploaded in SE&AM
74	Vatovavy	Ifanadiana	Androrangavola	Androrangavola	APD Available & uploaded in SE&AM
75	Fitovinany	Manakara	Vohimasina North	Vohimasina North	ESF validated by USAID, waiting for UEI
76	Fitovinany	Manakara	Fenomby	Fenomby	System/PPP in place- Operation and Maintenance
77	Vatovavy	Mananjary	Namorona	Namorona	System/PPP in place- Operation and Maintenance
78	Vatovavy	Ifanadiana	Tsaratana	Tsaratana	APD Available
79	Fitovinany	Mananjary	Andonabe	Andonabe	System/PPP in place- Operation and Maintenance
80	Fitovinany	Vohipeno	Mahazoarivo	Mahazoarivo	System/PPP in place- Operation and Maintenance
81	Fitovinany	Manakara	Ampasimanjeva	Ampasimanjeva	ESF validated by USAID, waiting for UEI
82	Atsinanana	Toamasina II	Foulpointe	Bongabe	ESF in the process of validation by USAID
83	Atsinanana	Brickaville	Mahatsara	Maromby	ESF in the process of validation by USAID



## ANNEX 29. WATER SYSTEM CONSTRUCTION Q4.22

N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
1	Sabotsy Anjiro	Management, Operation & Maintenance	100%	18-Dec-18	05-Jul-19	08-Sep-20	100%	27-Mar-19	02-Aug-19	Water system and management contract operational.
2	Beforona	Management, Operation & Maintenance	100%	24-Jan-19	06-Jul-19	08-Sep-20	100%	27-Mar-19	02-Aug-19	Water system and management contract operational.
3	Foulpointe	Management, Operation & Maintenance	100%	11-Feb-19	09-Apr-19	07-Aug-20	100%	4-Aug-21	20-Sep-21	Water system and management contract operational.
4	Ilaka Est	Management, Operation & Maintenance	100%	06-Feb-19	11-Apr-19	12-Aug-20	100%	08-May-20	25-May-20	Water system and management

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
										contract operational.
5	Ranomafana Est	Management, Operation & Maintenance	100%	16-Apr-19	22-Jun-19	10-Aug-20	100%	08-May-20	25-May-20	Water system and management contract operational.
6	Ampasimbe Onibe	Management, Operation & Maintenance	100%	30-Apr-19	21-Jun-19	29-Aug-20	100%	08-May-20	25-May-20	Water system and management contract operational.
7	Ambila Lemaitso	Management, Operation & Maintenance	100%	13-Feb-19	10-Apr-19	10-Aug-19	100%	08-May-20	25-May-20	Water system and management contract operational.
8	Antaretra	Management, Operation & Maintenance	100%	03-Mar-20	03-Apr-20	Q3 FY21	100%	30-Jul-20	11-May-21	Water system and management

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
										contract operational.
9	Ambatofotsy	Management, Operation & Maintenance	100%	04-Jul-19	25-Sep-19	29-Sep-20	100%	30-Jul-20	11-May-21	Water system and management contract operational.
10	Ambalatenina	Management, Operation & Maintenance	100%	04-Jul-19	25-Sep-19	29-Sep-20	100%	30-Jul-20	11-May-21	
11	Ambodiara Sakorihy	Management, Operation & Maintenance	100%	04-Jul-19	25-Sep-19	29-Sep-20	100%	30-Jul-20	11-May-21	
12	Kianjanomby	Management, Operation & Maintenance	100%	16-Apr-19	23-Sep-19	28-Sep-20	100%	30-Jul-20	11-May-21	Water system and management contract operational.

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
13	Andemaka	Management, Operation & Maintenance	100%	18-Apr-19	27-Sep-19	29-Sep-20	80%	06-Apr-22	Q1 FY23 (delayed)	Water system operational. Management contract being signed at the MEAH level.
14	Anosibe Ifody	Management, Operation & Maintenance	100%	20-Dec-19	09-Sep-20	9-Sep-20	100%	18-Mar-20	29-Apr-20	Water system and management contract operational.
15	Lokomby	Management, Operation & Maintenance	100%	23-Sep-20	28-Sep-20	27-Mar-21	100%	06-Apr-22	Q1 FY23 (delayed)	Water system operational. Management contract being signed

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
										at the MEAH level.
16	Manampatrana	Management, Operation & Maintenance	100%	06-Mar-20	02-Apr-20	29-Sep-20	100%	30-Jul-20	07-Jul-21	Water system and management contract operational.
17	Ambongabe	Management, Operation & Maintenance	100%	11-Sep-20	15-Sep-20	Q1 FY22	100%	30-Jul-20	10-Jun-20	Water system and management contract operational.
18	Betatamo	Management, Operation & Maintenance	100%	11-Sep-20	15-Sep-20	Q1 FY22	100%	30-Jul-20	10-Jun-20	Water system and management contract operational.
19	Niarovana Caroline	Management, Operation & Maintenance	100%	22-Jan-20	09-May-20	Q3 FY21	85%	Q1 FY23 (delayed)	Q1 FY23 (delayed)	Water system operational. Constitution

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
										of the appendices in progress.
20	Mahatsara	Management, Operation & Maintenance	100%	09-May-20	25-Aug-20	Q3 FY21	85%	Q1 FY23 (delayed)	Q1 FY23 (delayed)	Water system operational. Constitution of the appendices in progress.
21	Ampasimadinika		100%	22-Aug-20	24-Aug-20	Q3 FY21	85%	Q1 FY23 (delayed)	Q1 FY23 (delayed)	Water system operational. Constitution of the appendices in progress.

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
22	Soanindrarinny	Management, Operation & Maintenance	100%	28-Oct-21	23-Nov-21	23-May-22	100%	27-Oct-21	14-Dec-21	Water system and management contract operational.
23	Antsoatany	Management, Operation & Maintenance	100%	14-Dec-21	14-Jan-22	10-May-22	100%	27-Oct-21	14-Dec-21	
24	Ambohitsimanova	Management, Operation & Maintenance	100%	23-Aug-21	29-Oct-21	27-Apr-22	100%	27-Oct-21	14-Dec-21	
25	Morarano Chrome	Management, Operation & Maintenance	100%	27-Oct-21	04-Oct-22	-	85%	03-Oct- 22	Q1 FY23 (delayed)	Water system is operational. Management contract being signed

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
										at the MEAH level.
26	Androy	Management, Operation & Maintenance	100%	15-Oct-21	25-Oct-21	25-Apr-22	5%	12-jul-22	Q1 FY23 (delayed)	Water system is operational. Management contract being signed at the MEAH level.
27	Andrainjato-Est	Management, Operation & Maintenance	100%	31-Jan-22	19-Mar-22	19-Sep-22	5%	12-jul-22	Q1 FY23 (delayed)	Water system is operational. Management contract being signed at the MEAH level.
28	Ivato Centre	Management, Operation & Maintenance	100%	17-Dec-21	31-Jan-22	30-Jul-22	80%	12-jul-22	Q1 FY23 (delayed)	Water system is operational. Management



N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
										contract being signed at the MEAH level.
29	Andrainjato - Ambalavao	Management, Operation & Maintenance	100%	2-Feb-22	9-Mar-22	9-Sep-22	5%	Q1 FY23 (delayed)	Q1 FY23 (delayed)	Water system operational. The management contract Constitution of the appendices in progress.
30	Ambatomarina	Management, Operation & Maintenance	100%	4-Feb-22	19-Feb-22	18-Aug-22	80%	12-juillet-22	Q1 FY23 (delayed)	Water system is operational. Management contract being signed at the MEAH level.

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
31	Vohitrindry	Management, Operation & Maintenance	100%	13-Jan-22	01-Sept-22	-	5%	12-jul-22	Q1 FY23 (delayed)	Water system is operational. Management contract being signed at the MEAH level.
32	Ilaka Centre	Management, Operation & Maintenance	100%	25-Aug-22	-	-	5%	Q1 FY23 (delayed)	Q1 FY23 (delayed)	Water system operational. Constitution of the appendices in progress.
33	Ankarefo Tsaramiafara-Ankarefo Tsarafasina	Extension (PPP+)	85%	-	-	-	100%	21-07-21	21-07-21	Construction work in progress. Management contract completed.

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
34	Mahazoarivo	Construction	58%	-	-	-	-	Q1 FY23 (delayed)	Q1 FY23 (delayed)	Construction work and contract management process in progress.
35	Ambalamahasoia	Management, Operation & Maintenance	100%	23-Jul-22	12-Sep-22	-	-	Q1 FY23 (delayed)	Q1 FY23 (delayed)	Water system operational. Constitution of the appendices in progress.
36	Mandialaza	Contracting	0%	-	-	-	5%	Q1 FY23 (delayed)	Q1 FY23 (delayed)	Water system in progress. Constitution of the appendices in progress.

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
37	Andonabe	Management, Operation & Maintenance	100%	04-May-22	23-Jun-22	-	0%	Q1 FY23 (delayed)	Q1 FY23 (delayed)	Construction work and contract management process in progress.
38	Fenomby	Management, Operation & Maintenance	100%	21-Sept-21	27-Sept-21	Mars-22	5%	12-jul-22	Q1 FY23 (delayed)	Water system is operational. Management contract being signed at the MEAH level.
39	Morarano Gara	Construction	90%	22-Sept-22	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.
40	Ambinanisoavolo	Extension (PPP+)	90%	-	-	-	-	Q1FY23	Q1FY23	Construction work and

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
41	Marolafa	Extension (PPP+)	90%	-	-	-	-	Q1FY23	Q1FY23	addendum contract management process in progress.
42	Marozevo/ Soakambana	Extension (PPP+)	90%	-	-	-	-	Q1FY23	Q1FY23	
43	Ambohitrova	Management, Operation & Maintenance	100%	16-Jun-21	07-Jul-21	02-Sep-22	-	Q1FY23	Q1FY23	Water system operational. Constitution of the appendices in progress.

N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
44	Ambohimanambola	Construction	1%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.
45	Ampasimanjeva	Construction	8%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.
46	Vohimasina Nord	Construction	5%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.

N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
47	Namorona	Construction	73%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.
48	Andranomiditra	Construction	10%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.
49	Ihazoara	Construction	10%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.

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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
50	Andranovorivato	Construction	95%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.
51	Namoly	Construction	10%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.
52	Sendrisoa	Construction	10%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.



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N	Project Site	Phase	Construction work achievement (%)	Technical Reception	Provisional Reception	Final Reception (after 06 months warranty period)	% Delegation Contract	Date submitted for signature to the MEAH	Deadline date Delegation Contract	Comments
53	Fetraomby	Construction	70%	-	-	-	-	Q1FY23	Q1FY23	Construction work and contract management process in progress.

## ANNEX 30. WATER SUPPLY SYSTEMS PPP CONTRACTS Q4.22

Summary	Total	ATSINANANA	VAKINAKA RATRA	VATOVAVY	FITOVINANY	ALAOTRA MANGORO	MATSIATRA AMBONY	AMORON'I MANIA
<b>TOTAL (Signed contracts)</b>	<b>18</b>	6	3	1	3	5	0	0
<b>TOTAL Regional level</b>	<b>22</b>	3	1	1	4	5	8	0
<b>(ongoing) PCT level</b>	<b>4</b>	3	0	1	0	0	0	0
<b>Minister level</b>	<b>9</b>	0	0	0	4	1	2	2
<b>TOTAL</b>	<b>53</b>	12	4	3	11	11	10	2
<b>TOTAL COMMUNES CONCERNE</b>	<b>46</b>	<b>9</b>	<b>4</b>	<b>3</b>	<b>11</b>	<b>7</b>	<b>10</b>	<b>2</b>

MC: Management Contract  
 WSP: Water Service Provider

### Legend

	Activity started
	Signature at Commune/WSP/District levels
	Signature MEAH
	Completed

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#	Region	Site	Date of signature (building contract)	Type	Status	1- MC (MEAH Model Available)	7- MCs (Signed by the municipality)	8- MCs (Signed by the WSP)	9-12 appendices completed	15- 6 MCs Delivered to MEAH	16- Approved by the Minister
1	Alaotra Mangoro	<b>Sabotsy Anjiro</b>	22-Sep-18	Rehabilitation; extension and upgrading for PPP management	<b>Completed</b>	16-Aug-18	27-Nov-18	27-Nov-18	12/12 appendices completed	27-Mar-19	2-Aug-19
2	Alaotra Mangoro	<b>Beforona</b>	22-Sep-18	Rehabilitation; extension; upgrading	<b>Completed</b>	16-Aug-18	27-Nov-18	27-Nov-18	12/12 appendices completed	27-Mar-19	2-Aug-19
3	Atsinanana	<b>Foulpointe 1</b>	4-Sep-18	Extension and upgrade	<b>Completed</b>	16-Aug-18	7-Jul-21	7-Jul-21	12/12 appendices completed	4-Aug-21	20-Sep-21
3	Atsinanana	<b>Foulpointe 2</b>	25-Sep-18	Extension and upgrade PPP+	<b>Completed</b>						
4	Atsinanana	<b>Ilaka Est</b>	31-Aug-18	Rehabilitation & extension	<b>Completed</b>	16-Aug-18	15-Nov-18	15-Nov-18	12/12 appendices completed	8-May-20	25-May-20
5	Atsinanana	<b>Ranomafana Est</b>	28-Sep-18	Construction/Extension	<b>Completed</b>	16-Aug-18	15-Nov-18	15-Nov-18	12/12 appendices	8-May-20	25-May-20

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									completed		
6	Atsinanana	<b>Ampasimbe Onibe</b>	4-Sep-18	Rehabilitation; extension and upgrading for PPP management	<b>Completed</b>	16-Aug-18	15-Nov-18	15-Nov-18	12/12 appendices completed	8-May-20	25-May-20
7	Atsinanana	<b>Ambila Lemaitso</b>	24-Sep-18	New construction	<b>Completed</b>	16-Aug-18	14-Nov-18	14-Nov-18	12/12 appendices completed	8-May-20	25-May-20
8	Vatovavy	<b>Antaretra</b>	24-Sep-19	Rehabilitation & extension	<b>Completed</b>	8-Jun-20	11-Jun-20	11-Jun-20	12/12 appendices completed	30-Jul-20	11-May-21
9	Fitovinany	<b>Ambatofotsy / Ambalatenina / Ambodiarasakorihy</b>	11-Feb-19	Rehabilitation & extension of 3 water systems	<b>Completed</b>	8-Jun-20	11-Jun-20	11-Jun-20	12/12 appendices completed	30-Jul-20	11-May-21

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10	Fitovinany	<b>Kianjanomby</b>	12-Dec-18	Construction	Completed	8-Jun-20	11-Jun-20	11-Jun-20	12/12 appendices completed	30-Jul-20	11-May-21
11	Fitovinany	<b>Andemaka 1</b>	19-Nov-18	Rehabilitation & extension	Signature MEAH	3-Aug-21	13-Oct-21	13-Oct-21	12/12 appendices completed	6-Apr-22	Q1 FY23
11	Fitovinany	<b>Andemaka 2</b>	19-Nov-18								
12	Alaotra Mangoro	<b>Anosibe Ifody</b>	25-Sep-19	Rehabilitation	Completed	26-Jul-21	6-Mar-20	6-Mar-20	12/12 appendices completed	18-Mar-20	29-Apr-20
13	Fitovinany	<b>Lokomby</b>	25-Sep-19	New construction	Signature MEAH	3-Aug-21	14-Oct-21	14-Oct-21	12/12 appendices completed	6-Apr-22	Q1 FY23
14	Fitovinany	<b>Manamparana</b>	24-Sep-19	New construction	Completed	8-Jun-20	11-Jun-20	11-Jun-20	12/12 appendices	30-Jul-20	7-Jul-21

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									completed		
15	Alaotra Mangoro	<b>Ambongabe</b>	28-Feb-20	Rehabilitation; extension; upgrading	<b>Completed</b>	8-Jun-20	10-Jun-20	10-Jun-20	12/12 appendices completed	30-Jul-20	10-Jun-20
15		<b>Betatambo</b>	24-Feb-20	Rehabilitation; extension; upgrading							
16	Atsinanana	<b>Niarovana Caroline</b>	4-Oct-19	New construction	<b>Signature at Commune/WSP/District levels</b>	3-Aug-21	3-Nov-21	4-Nov-21	12/12 appendices completed	Q1 FY23	Q1 FY21
17	Atsinanana	<b>Mahatsara</b>	4-Oct-19	New construction (Mahatsara )	<b>Signature at Commune/WSP/District levels</b>	3-Aug-21	3-Nov-21	4-Nov-21	12/12 appendices completed	Q1 FY23	Q1 FY23
18	Atsinanana	<b>Ampasimadinika</b>	4-Oct-19	Renovation with redesign (Ampasimadinika)	<b>Signature at Commune/WSP/District levels</b>	3-Aug-21	3-Nov-21	4-Nov-21	12/12 appendices completed	Q1 FY23	Q1 FY23

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19	Vakinakaratra	<b>Soanindrariny</b>	6-Apr-21	Rehabilitation and extension of a piped water supply system managed through a Public-Private Partnership (Co-invest- Build- Operate and Maintain model)	<b>Completed</b>	3-Aug-21	15-Oct-21	15-Oct-21	12/12 appendices completed	27-Oct-21	14-Dec-21

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#	Region	Site	Date of signature (building contract)	Type	Status	1- MC (MEAH Model Available)	7- MCs (Signed by the municipality)	8- MCs (Signed by the WSP)	9-12 appendices completed	15- 6 MCs Delivered to MEAH	16- Approved by the Minister
20	Vakinakaratra	<b>Antsoatany</b>	6-Apr-21	Rehabilitation and extension of a piped water supply system managed through a Public-Private Partnership (Co-invest- Build- Operate and Maintain model)	<b>Completed</b>	3-Aug-21	15-Oct-21	15-Oct-21	12/12 appendices completed	27-Oct-21	14-Dec-21



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21	Vakinakaratra	<b>Ambohitsimanova</b>	6-Apr-21	Rehabilitation and extension of a piped water supply system managed through a Public-Private Partnership (Co-invest-Build-Operate and Maintain model)	<b>Completed</b>	3-Aug-21	15-Oct-21	15-Oct-21	12/12 appendices completed	27-Oct-21	14-Dec-21

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22	Alaotra Mangoro	<b>Morarano Chrome</b>	30-Mar-21	Rehabilitation and extension of a piped water supply system managed through a Public-Private Partnership (Co-invest- Build- Operate and Maintain model)	<b>Signature MEAH</b>	3-Aug-21	9-Sep-21	9-Sep-21	12/12 appendices completed	3-Oct-22	Q1 FY23
23	Matsiatra Ambony	<b>Androy</b>	23-Jun-21	New construction	<b>Signature MEAH</b>	3-Aug-21	15-May-22	15-May-22	19-mai-22	12-Jul-22	Q1 FY23

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24	Matsiatra Ambony	<b>Andrainja to-Est</b>	13-Sep-21	Rehabilitation and extension of the gravity-fed water supply system (GFWSS), including the connection of the CSBII to the newly rehabilitated water system	<b>Signature MEAH</b>	3-Aug-21	15-May-22	15-May-22	19-mai-22	12-Jul-22	Q1 FY23
25	Fitovinany	<b>Vohitrindry</b>	13-Sep-21	Construction of a new pump-fed water supply system (PFWSS) and improvement of the access to drinking water and sanitation for schools and CSBII	<b>Signature MEAH</b>	3-Aug-21	13-Jan-22	13-Jan-22	28-Jun-22	12-Jul-22	Q1 FY23

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26	Amoron'i Mania	<b>Ivato Centre</b>	13-Sep-21	Improvement of drinking water supply including installation of a sanitary block for the CSBII	Signature MEAH	3-Aug-21	28-Jan-22	28-Jan-22	19-mai-22	12-Jul-22	Q1 FY23
27	Amoron'i Mania	<b>Ambato marina</b>	12-Oct-21	Improvement of drinking water supply including installation of a sanitary block for the CSBII	Signature MEAH	3-Aug-21	18-Feb-22	18-Feb-22	19-mai-22	12-Jul-22	Q1 FY23
12	Alaotra Mangoro	<b>Ankarefo Tsaramia fara-Ankarefo - Tsarafasi na</b>		PPP+ / Upgrade (Extension of a piped water supply system)	Completed	7-May-21	21-Jul-21	21-Jul-21	12/12 appendices completed	21-Jul-21	21-Jul-21

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28	Matsiatra Ambony	<b>Andrainja to-Ambalavao</b>	12-Oct-21	construction of a new gravity-fed drinking water supply system (GFWSS) and provision of water supplies to the CSBII	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	30-Jun-22	Q1 FY23	Q1 FY23
29	Fitovinany	<b>Fenomby</b>	21-Oct-21	Construction of a new Gravity Fed Water Supply System (GFWSS) and improvement of the access to drinking water for schools and CSBII	<b>Signature MEAH</b>	3-Aug-21	21-Sep-21	21-Sep-21	28-Jun-22	12-Jul-22	Q1 FY23

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30	Fitovinany	<b>Mahazoarivo</b>	25-Oct-21	Construction of a new Gravity Fed Water Supply System (GFWSS) and improvement of the access to drinking water for schools and CSBII	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
31	Vatovavy	<b>Andonabe</b>	25-Oct-21	Construction of a new Gravity Fed Water Supply System (GFWSS) and improvement of the access to drinking water for schools and CSBII	<b>Signature at Commune/WS P/District levels</b>	3-Aug-21	9-Mar-22	9-Mar-22	Q1 FY23	Q1 FY23	Q1 FY23

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32	Matsiatra Ambony	<b>Ambalamahasoa</b>		Rehabilitation and extension of the Gravity Fed Water Supply System (GFWSS) including the connection of the CSB II to the newly rehabilitated water system	Activity started	3-Aug-21	Q1 FY23	Q4 FY22	30-Jun-22	Q1 FY23	Q1 FY23
33	Matsiatra Ambony	<b>Ilaka Centre</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS), including the installation of a sanitary block for the health center (CSB II)	Activity started	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23

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34	Alaoatra Mangoro	<b>Mandialaza</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	Activity started	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
35	Alaoatra Mangoro	<b>Morarano Gara</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS), including the installation of a sanitary block for the health center (CSB II)	Activity started	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
2	Alaoatra Mangoro	<b>Ambinani soavolo / Beforona</b>		Extension (PPP+)	Activity started	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
2	Alaoatra Mangoro	<b>Marolafa / Beforona</b>		Extension (PPP+)	Activity started	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23



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2	Alaotra Mangoro	<b>Marozevo/Soakambana / Beforona</b>		Extension (PPP+)	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
17	Atsinanana	<b>Maromby / Mahatsaraka</b>		Extension (PPP+)	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
3	Atsinanana	<b>Bongabe / Foulpointe</b>		Extension (PPP+)	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
36	Fitovinany	<b>Ambohitrova</b>		Extension (PPP+)	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
37	Vakinankaratra	<b>Ambohi manambola</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
38	Fitovinany	<b>Ampasim anjeva</b>		Construction activities for a Gravity Fed Water	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23

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				Supply System (GFWSS),							
39	Fitovinany	<b>Vohimasi na Nord</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
40	Vatovavy	<b>Namorona</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
41	Matsiatra Ambony	<b>Andranomiditra</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
42	Matsiatra Ambony	<b>Ihazoara</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	<b>Activity started</b>	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23

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43	Matsiatra Ambony	<b>Andranovorivato</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	Activity started	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
44	Matsiatra Ambony	<b>Namoly</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	Activity started	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
45	Matsiatra Ambony	<b>Sendrisoa</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	Activity started	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23
46	Atsinanana	<b>Fetraomby</b>		Construction activities for a Gravity Fed Water Supply System (GFWSS),	Activity started	3-Aug-21	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23	Q1 FY23

## ANNEX 31. HYBRID DAM MONITORING

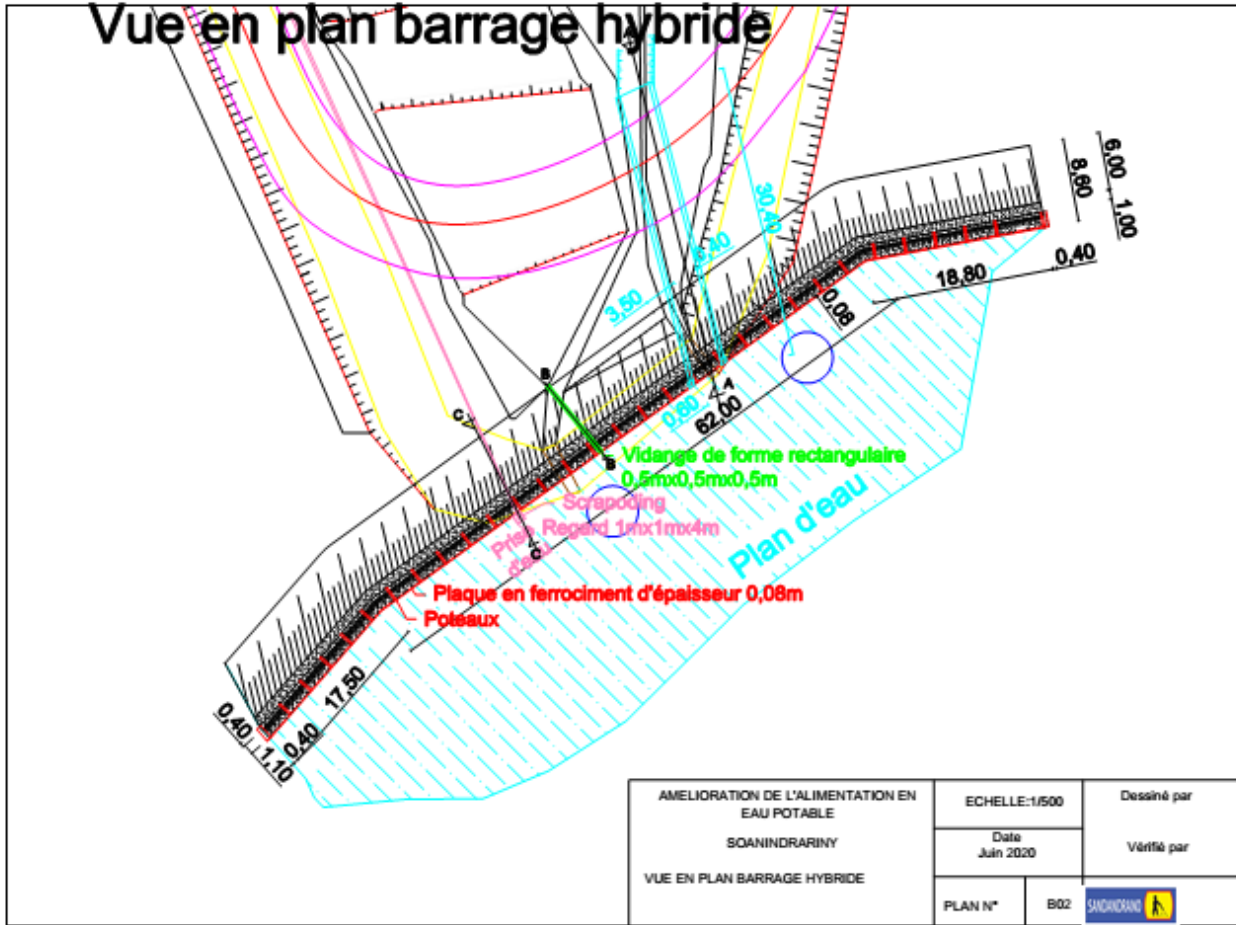
SITE	REGION	DATE OF MONIROTING VISIT
SOANINDRARINY	VAKINANKARATRA	23 July 2022
AMBOHITSIMANOVA	VAKINANKARATRA	23 June 2022
NIAROVANA CAROLINE	ATSINANANA	4 July 2022
AMBILA LEMAITSO	ATSINANANA	5 July 2022
FOULPOINTE	ATSINANANA	7 July 2022
AMPARAFARAVOLA	ALAOTRA MANGORO	9 July 2022
MORARANO CHROME	ALAOTRA MANGORO	9 July 2022
ANDONABE	ATSINANANA	10 August 2022

## ANNEX 31.1 SITE DE SOANINDRARINY

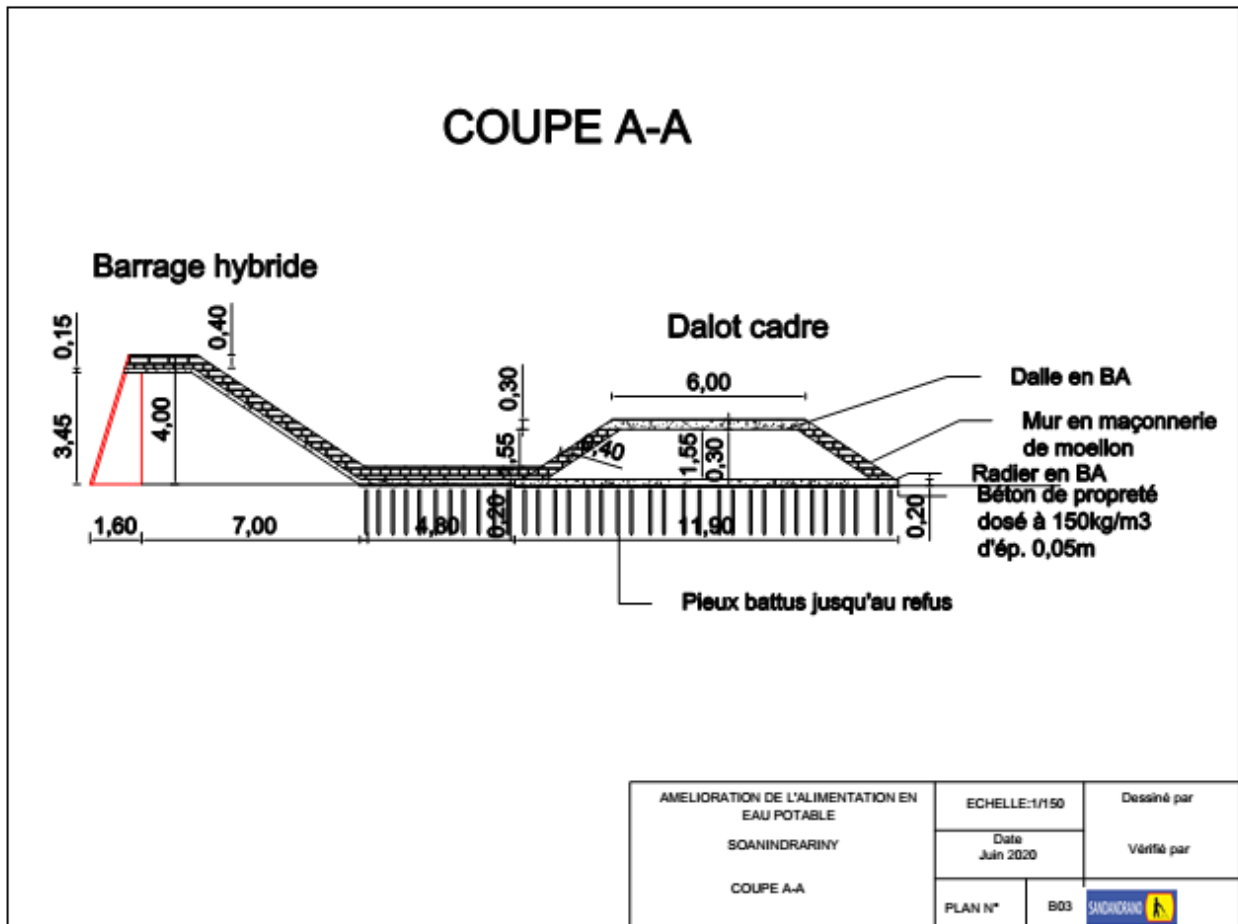
FICHE TECHNIQUE DU BARRAGE DE SOANINDRARINY			
Localisation du barrage			
Région	VAKINANKARATRA	Localité	Est Itendro
District	Antsirabe II	Coordonnées GPS de l'emplacement du barrage	
Commune	Soanindrariny	Latitude	Longitude
Fokontany	Est Itendro	19°54'33,7" S	47°15'43,9" E
Informations sur le barrage			
Nom de la source / rivière / lac	Itendro		
Année de construction	2021		
Année de réhabilitation	-		
Site Hydrique	<input checked="" type="checkbox"/> Au point d'émergence d'une source <input type="checkbox"/> Au travers d'un cours d'eau <input type="checkbox"/> A l'exutoire d'un lac <input type="checkbox"/> Au pourtour d'un lac <input type="checkbox"/> Autres à préciser :		
Type de barrage	<input checked="" type="checkbox"/> Barrage hybride <input type="checkbox"/> Barrage en béton armé <input type="checkbox"/> Barrage en béton cyclopéen <input type="checkbox"/> Barrage en maçonnerie <input type="checkbox"/> Autres à préciser :		
Type de terrain de fondation	<input type="checkbox"/> Alluvion <input type="checkbox"/> Argile <input type="checkbox"/> Roc <input type="checkbox"/> Nature inconnue <input checked="" type="checkbox"/> Autres à préciser : Latéritique		
Type d'usage	<input checked="" type="checkbox"/> Alimentation en eau potable <input checked="" type="checkbox"/> Agriculture <input type="checkbox"/> Autres à préciser :		

<b>Descriptions techniques du barrage</b>					
<b>Longueur de l'ouvrage</b>	90,00	[m]	<b>Largeur en crête</b>	1,00	[m]
<b>Hauteur du barrage</b>	4,00	[m]	<b>Largeur de la base</b>	8,60	[m]
<b>Hauteur de retenue</b>	3,50	[m]	<b>Superficie du plan d'eau</b>	0,16	[Ha]
<b>Fruit du parement amont</b>			<b>Capacité de la retenue</b>	15 900	[m <sup>3</sup> ]
<b>Fruit du parement aval</b>	1/2		<b>Superficie du BV alimentant le barrage</b>	14,00	[Ha]
<b>Evacuateur de crues</b>	Ouverture de 3,50 m				
<b>Ouvrage de vidange</b>	- Forme rectangulaire 0,80mx0,80m équipé de vanne à crémaillère		<b>Prise d'eau / captage</b>	PVC DN63	
<b>Gestionnaire</b>					
<b>Entreprise</b>	EC ABRAHAM				
<b>Adresse siège</b>	Lot T III Ankadindratombo Alasora – Antananarivo				
<b>Courriel siège</b>	<a href="mailto:abyhery7@ecabraham.org">abyhery7@ecabraham.org</a>				
<b>Téléphone responsable site</b>	034 69 419 57		<b>Nom responsable site</b>	Alpha	
<b>Téléphone directeur</b>	034 08 136 07		<b>Nom responsable société</b>	RAKOTOMANANTSOA Hery Abraham	
<b>Listes des annexes</b>					
1. Vue en plan	2. Coupe A – A		3. Coupe B – B		4. Coupe C– C
5. Délimitation BV					

### ANNEXE I : VUE EN PLAN DU BARRAGE EST ITENDRO

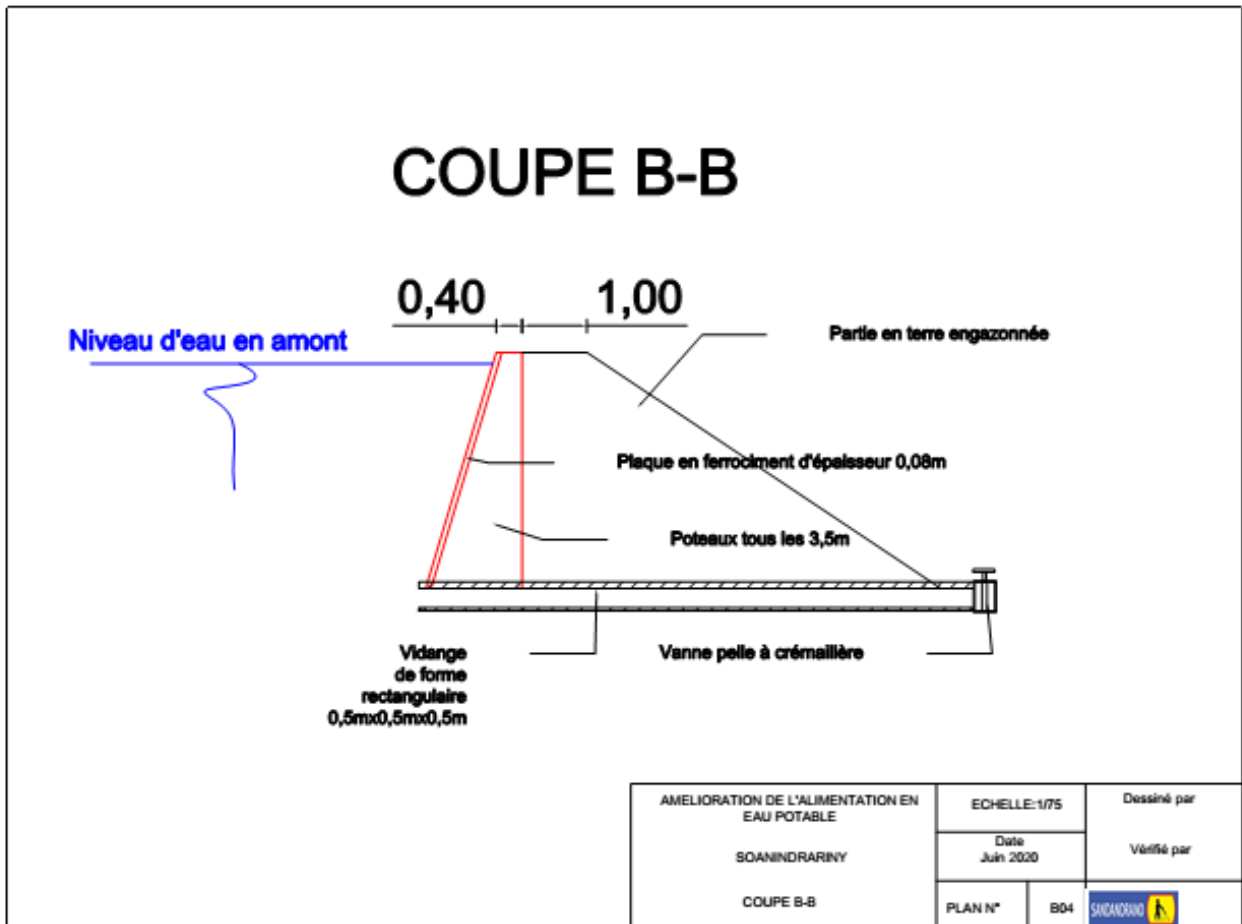


## ANNEXE II : COUPE A – A DU BARRAGE HYBRIDE EST ITENDRO

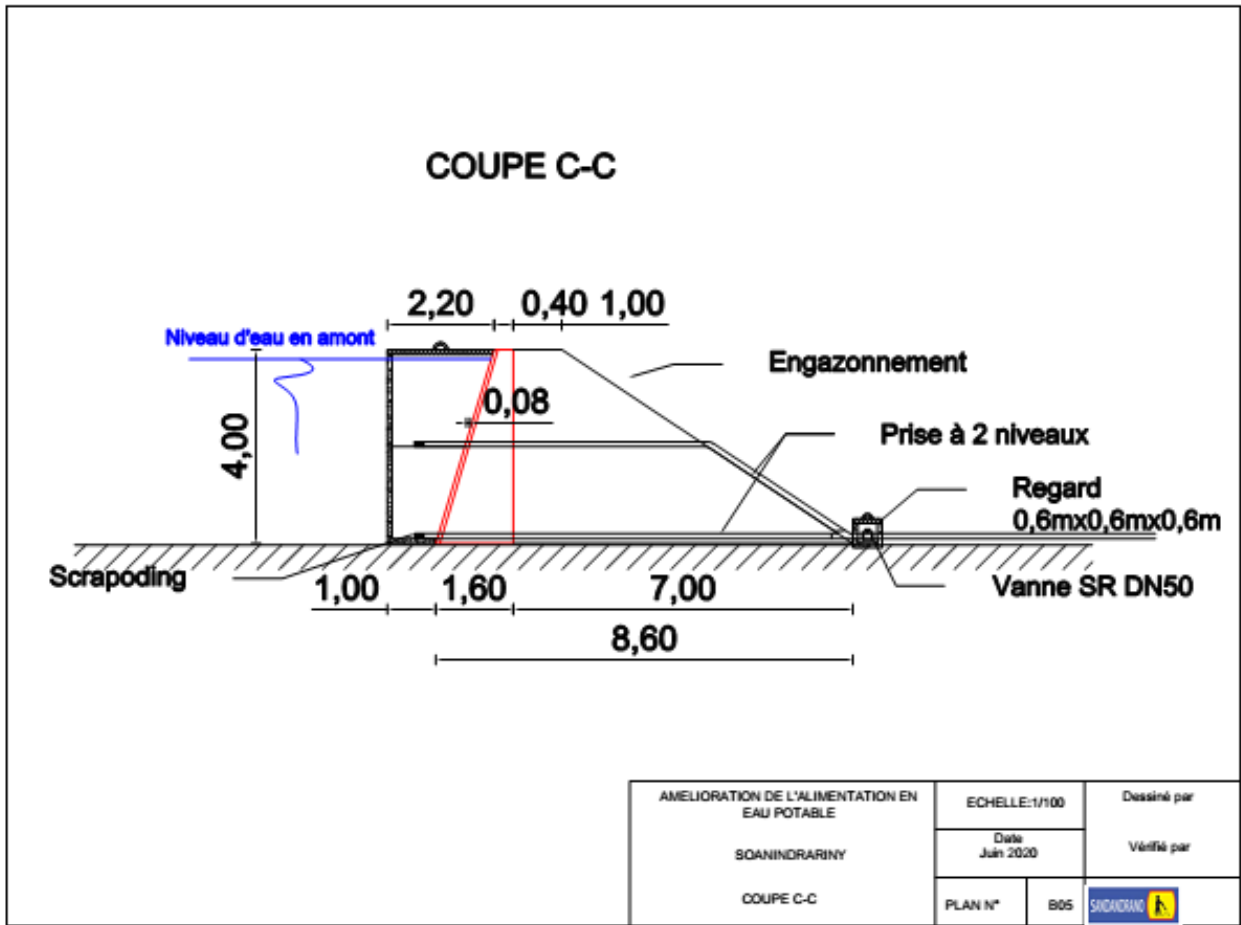




### ANNEXE III : COUPE B – B DU BARRAGE HYBRIDE EST ITENDRO





### ANNEXE IV : COUPE C – C DU BARRAGE HYBRIDE EST ITENDRO






## ANNEXE V : DELIMITATION DU BV







Nom de l'ouvrage		BARRAGE SOANINDRARINY		<b>FICHE D'INSPECTION VISUELLE DU BARRAGE</b> <b>(Surveillance régulière de l'ouvrage)</b>			
Date d'inspection		23 / 06 / 2022 (jj / mm / aa)					
Heure d'inspection		15 h 00 mn					
Nom des inspecteurs		Fanilo RAKOTONIRAINY		Hauteur du barrage		4,00	[m]
				Hauteur de retenue (Evacuateur de crue)		3,50	[m]
Météo lors de la visite		<input checked="" type="checkbox"/> Beau temps / <input type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie		Côte du plan d'eau par rapport à la base du barrage		2,70	[m]
Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner	
<i>Parement aval</i>	- Venues d'eau au travers du barrage  - Détection de présence d'amorces de glissement, d'animaux fousseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS	
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Creusement de ravines	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence d'effondrement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Etat de la végétation	Bon				
<i>Pied du parement aval</i>	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Présence de deux points de fuite à la base du barrage		Réparation de la fuite dans le parement aval en deux temps : dans l'immédiat installation de drain, et réfection du parement amont (voile en ferrociment) lors de l'étiage	
		Présence d'humidité	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non				
		Présence de fuite	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non				
<i>Appuis RG / RD</i>		Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS	

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	- Venues d'eau en provenance de la retenue	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
Vidange de fond	- Fissure - Etat des vannes	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Selon la négociation avec la communauté de Fenoarivo, une partie de l'eau sera débité pour la culture en aval (Sortie sur la vidange)		RAS
		Etat général	Bon			
Evacuateur de crue	- Fissure - Erosions des radiers - Etat des bétons - Tassement	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de tassement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat du seuil	Bon			
		Etat du coursier	Bon			
		Etat général	Bon			
Crête de barrage	- Tassement différentiel - Affaissement	Apparition de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La terre prend place (Ce qui est tout à fait normal) et engendre un tassement différentiel nécessitant d'être rechargé		Besoin de chargement de terre (Répéter cette action régulièrement lorsqu'on remarque que la terre se tasse d'environ 10 cm)
		Tassement de la crête	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de point bas	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
Parement amont		Liaison terre-ferrociment	Bon			

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	- Défauts de forme majeur (cloques, boursoflures, déchirement) de l'étanchéité amont	Présence de fissure	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non	Quelques lignes de fissures se présentent sur la voile en ferrociment bien que quelques-uns sont déjà traités		Traité les fissures lors de l'étiage afin de ne pas vider le barrage dans l'immédiat
		Armatures apparentes	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
Prise d'eau	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Envasement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
Bassin versant	- Formation de ravines Erosion	Présence d'érosion	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La commune a effectué une campagne de reboisement en début d'année dont la plupart pousse très bien		Dès que les plantes s'agrandissent un peu, il faut revoir la distance entre les pieds et réaménager le bassin versant en conséquence
		Présence de fontis	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
Panneaux de sécurité		Existence	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non	En plus du panneau, le barrage de retenu est clôturé		RAS

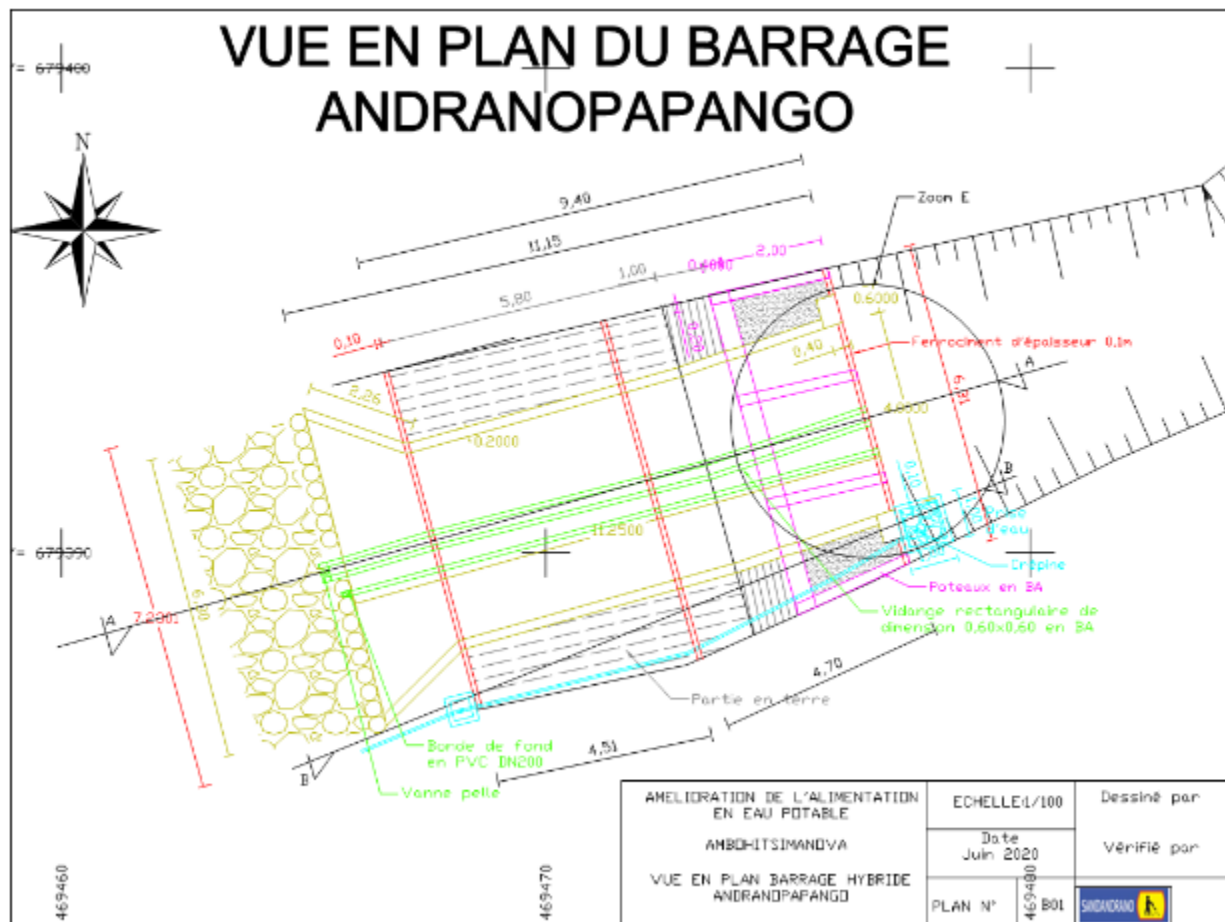
## ANNEX 3 I.2 SITE D'AMBOHITSIMANOVA

<b>FICHE TECHNIQUE DU BARRAGE D'AMBOHITSIMANOVA</b>			
<i>Localisation du barrage</i>			
<b>Région</b>	VAKINANKARATRA	<b>Localité</b>	Antanamalaza
<b>District</b>	Antsirabe II	<b>Coordonnées GPS de l'emplacement du barrage</b>	
<b>Commune</b>	Ambohitsimanova	<b>Latitude</b>	<b>Longitude</b>
<b>Fokontany</b>	Antanamalaza	19°59'23,90" S	47°6'4,5" E
<i>Informations sur le barrage</i>			
<b>Nom de la source / rivière / lac</b>	Andranopapango		
<b>Année de construction</b>	2021		
<b>Année de réhabilitation</b>	-		
<b>Site Hydrique</b>	<input type="checkbox"/> Au point d'émergence d'une source <input checked="" type="checkbox"/> Au travers d'un cours d'eau <input type="checkbox"/> A l'exutoire d'un lac <input type="checkbox"/> Au pourtour d'un lac <input type="checkbox"/> Autres à préciser :		
<b>Type de barrage</b>	<input checked="" type="checkbox"/> Barrage hybride <input type="checkbox"/> Barrage en béton armé <input type="checkbox"/> Barrage en béton cyclopéen <input type="checkbox"/> Barrage en maçonnerie <input type="checkbox"/> Autres à préciser :		
<b>Type de terrain de fondation</b>	<input type="checkbox"/> Alluvion <input type="checkbox"/> Argile <input checked="" type="checkbox"/> Roc <input type="checkbox"/> Nature inconnue <input type="checkbox"/> Autres à préciser :		
<b>Type d'usage</b>	<input checked="" type="checkbox"/> Alimentation en eau potable		

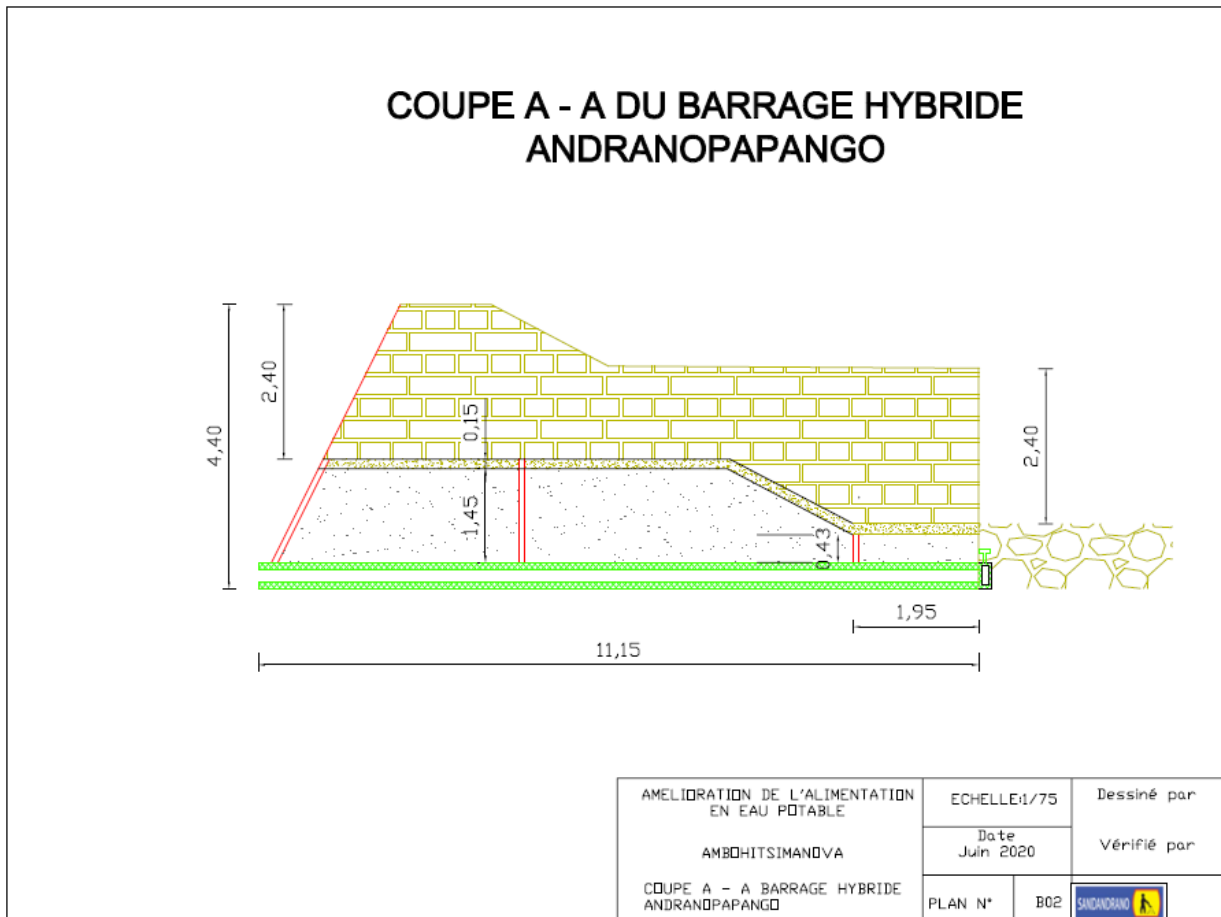
	<input type="checkbox"/> Agriculture <input type="checkbox"/> Pisciculture <input type="checkbox"/> Autres à préciser :				
<b>Descriptions techniques du barrage</b>					
Longueur de l'ouvrage	11,25	[m]	Largeur en crête	1,00	[m]
Hauteur du barrage	4,00	[m]	Largeur de la base	11,15	[m]
Hauteur de retenue	3,50	[m]	Superficie du plan d'eau		[Ha]
Fruit du parement amont			Capacité de la retenue	200	[m <sup>3</sup> ]
Fruit du parement aval	1/2		Superficie du BV alimentant le barrage	138	[Ha]
Evacuateur de crues	Ouverture de 4,00 m				
Ouvrage de vidange	- Forme rectangulaire 0,60mx0,60m équipé de vanne à crémaillère ; - Bonde de fond PVC DN200		Prise d'eau / captage	PVC DN90	
<b>Gestionnaire</b>					
Entreprise	ACOGEMA				
Adresse siège	Lot T III Ankadindratombo Alasora – Antananarivo				
Courriel siège	<a href="mailto:rehasajp@yahoo.com">rehasajp@yahoo.com</a>				
Autre courriel	<a href="mailto:rehasanantenainajv@gmail.com">rehasanantenainajv@gmail.com</a>				
Téléphone responsable site	034 80 454 20		Nom responsable site	Gigi	
Téléphone directeur	034 38 980 01		Nom responsable société	REHASA Jean Pierre	
Autres contacts	034 46 677 51		Nom	REHASA Nantenaina	
<b>Listes des annexes</b>					
1. Vue en plan	2. Coupe A – A	3. Zoom évacuateur de crue	4. Coupe B – B		
5. Plan de ferrailage	6. Zoom 1 plan de ferrailage	7. Zoom 2 et 3 plans de ferrailage	8. Délimitation BV		



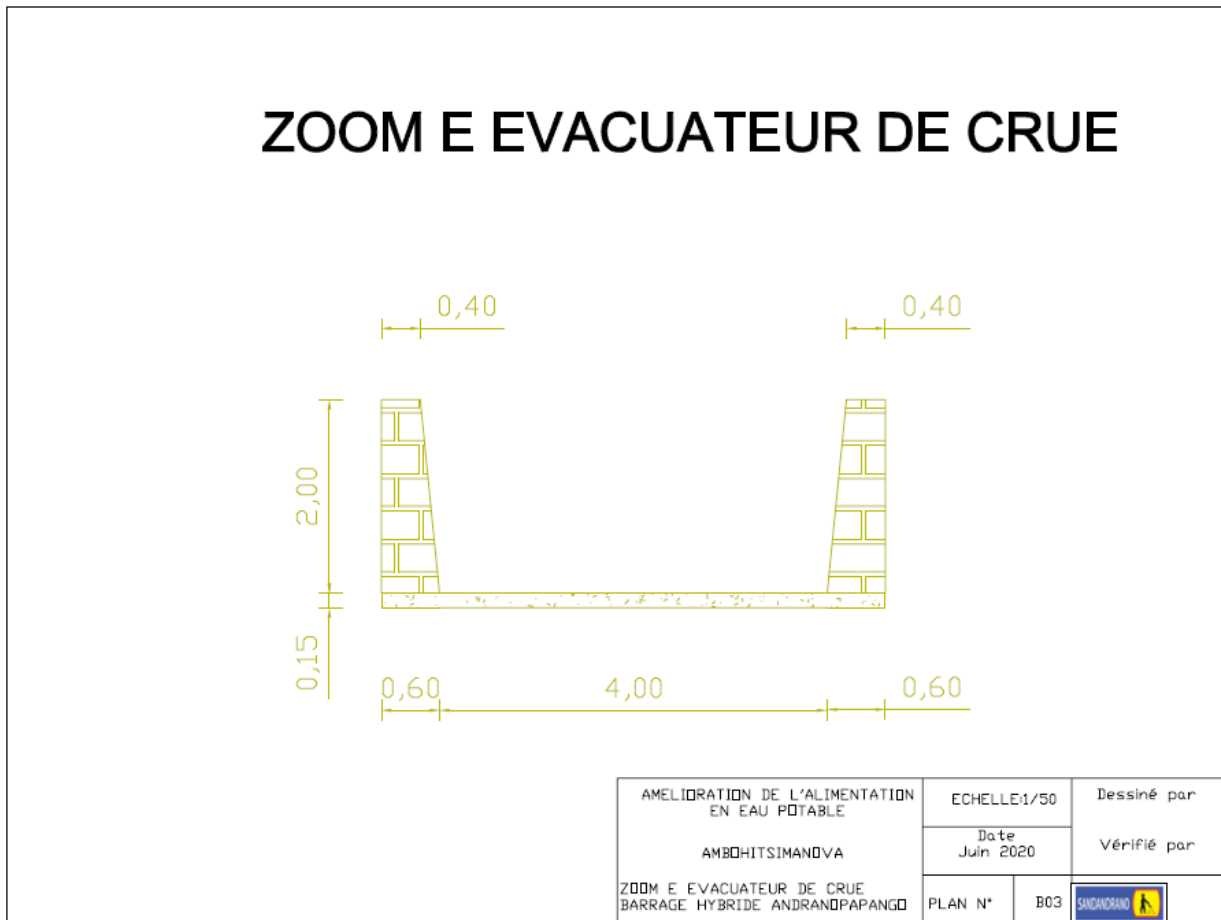
## ANNEXE I : VUE EN PLAN DU BARRAGE ANDRANOPAPANGO



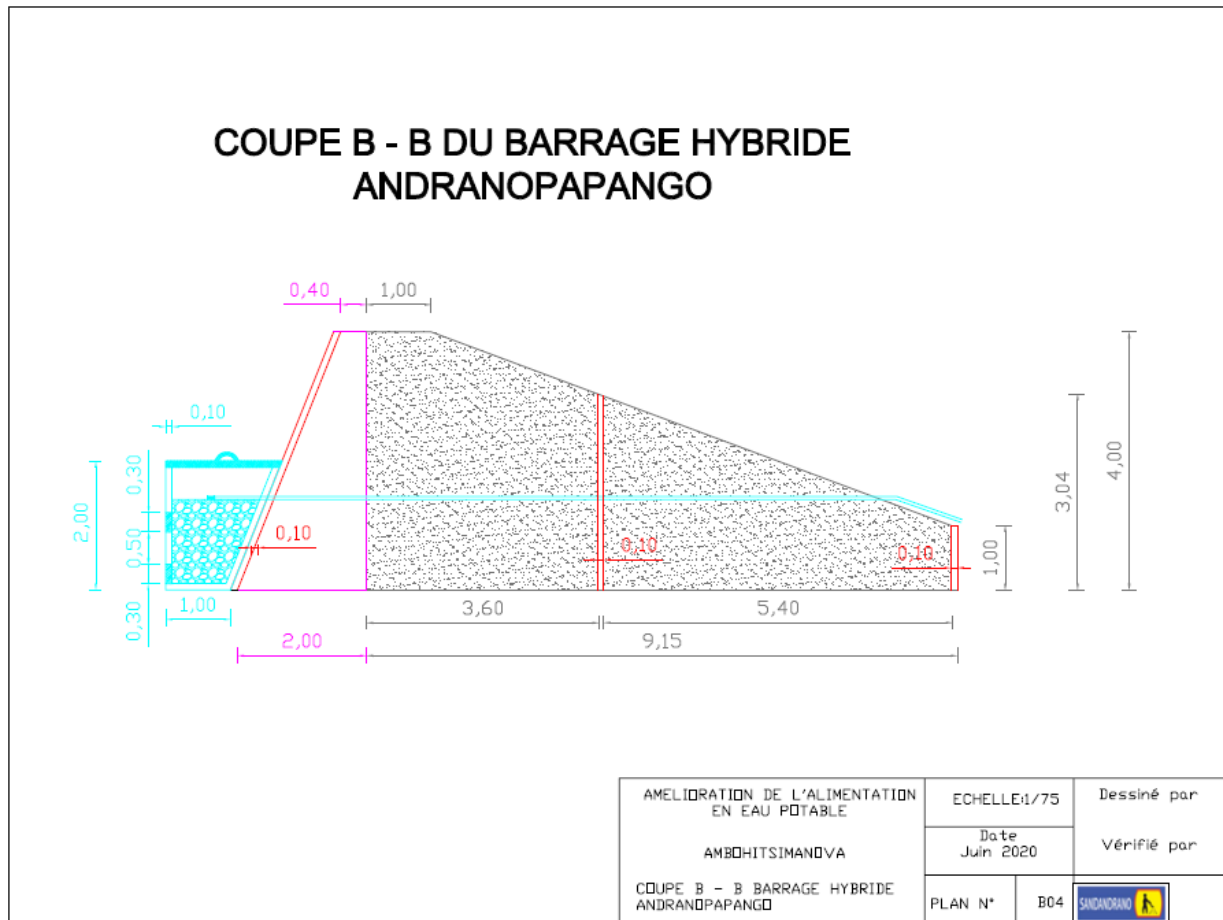
## ANNEXE II : COUPE A – A DU BARRAGE HYBRIDE ANDRANOPAPANGO



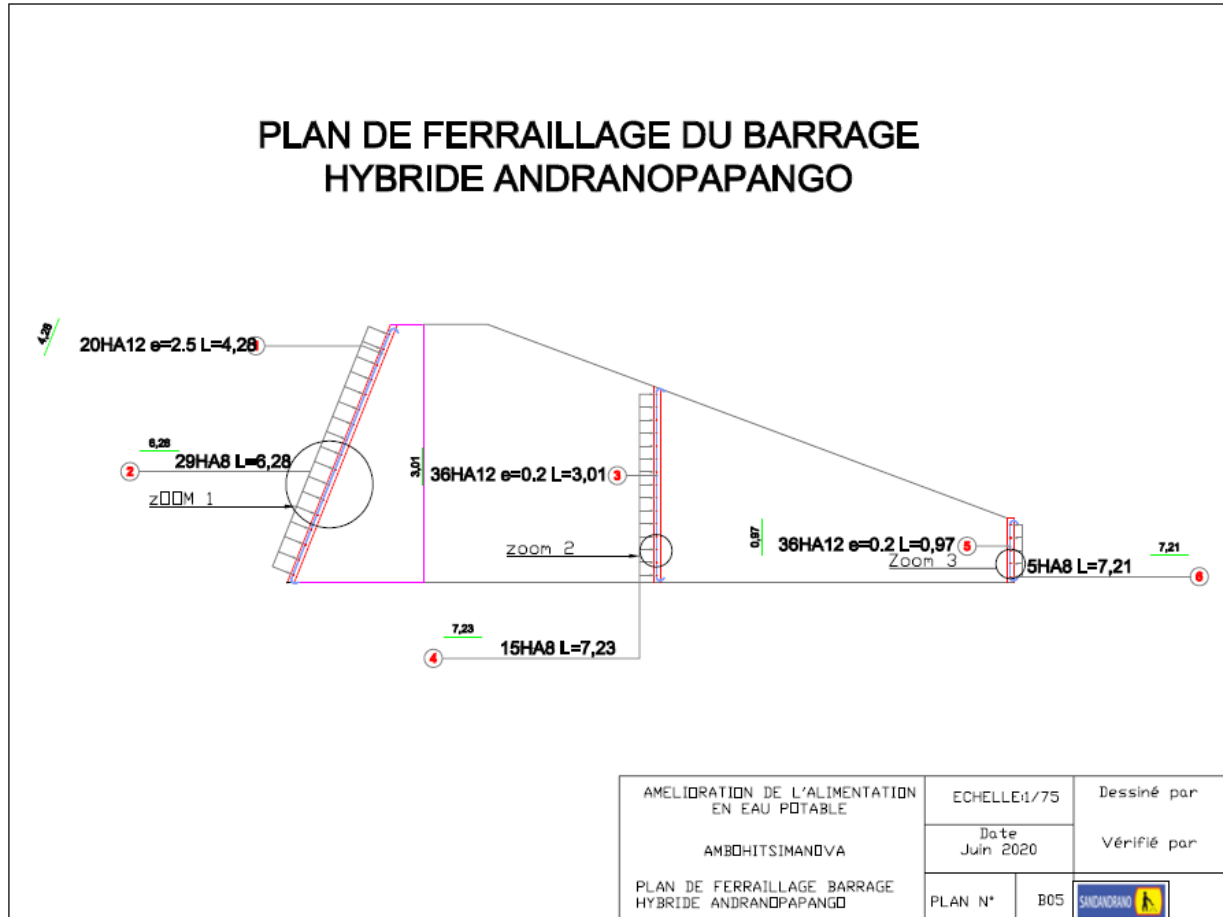
### ANNEXE III : ZOOM EVACUATEUR DE CRUE



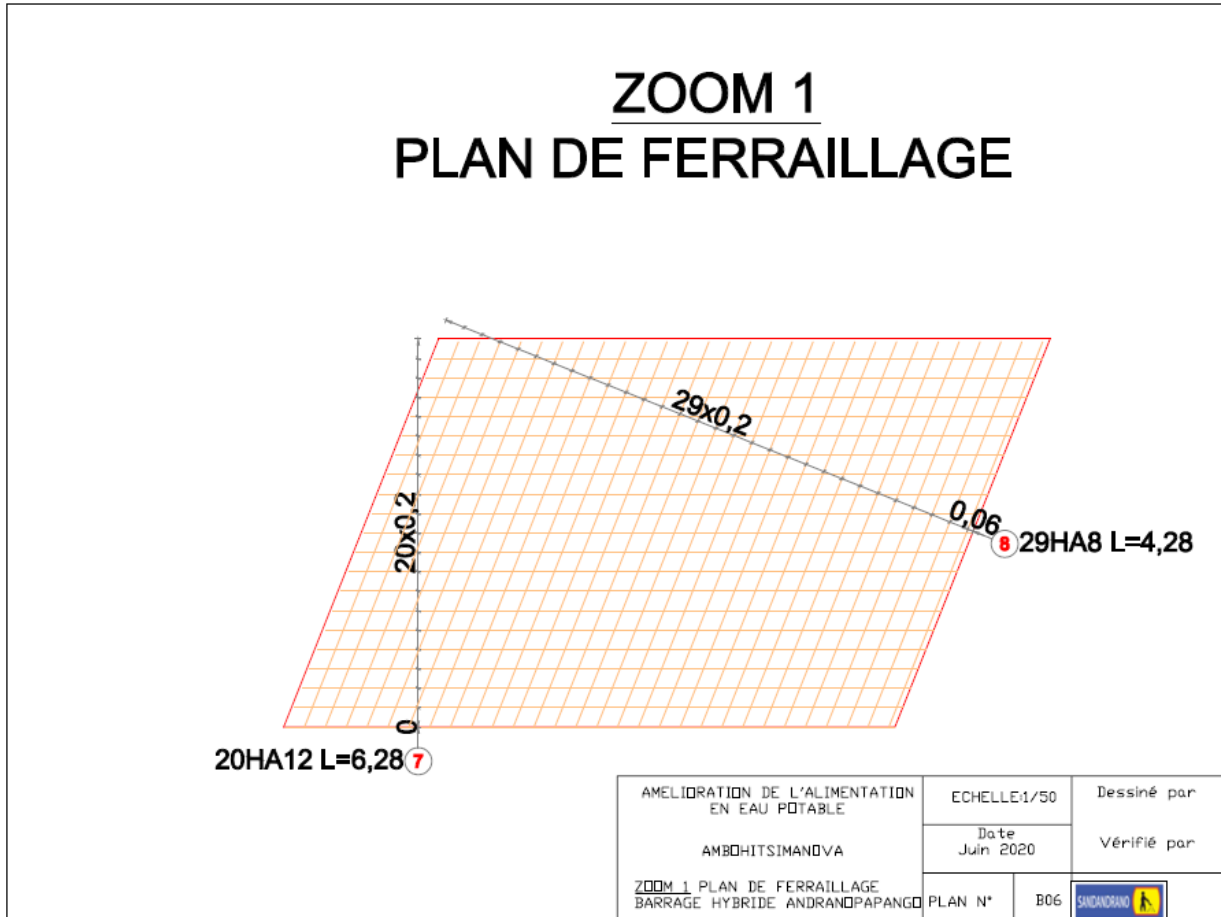
## ANNEXE IV : COUPE B – B DU BARRAGE HYBRIDE ANDRANOPAPANGO



## ANNEXE V : PLAN DE FERRAILLAGE DU BARRAGE HYBRIDE ANDRANOPAPANGO

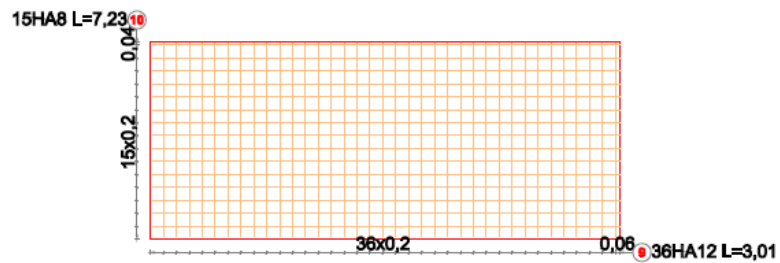


## ANNEXE VI : ZOOM I PLAN DE FERRAILLAGE DU BARRAGE ANDRANOPAPANGO

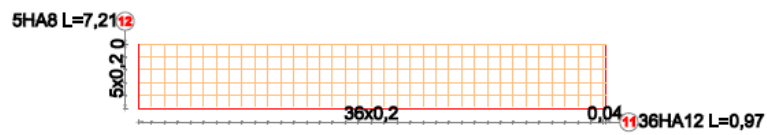



## ANNEXE VII : ZOOM 2 ET 3 PLAN DE FERRAILLAGE DU BARRAGE ANDRANOPAPANGO

### ZOOM 2 PLAN DE FERRAILLAGE

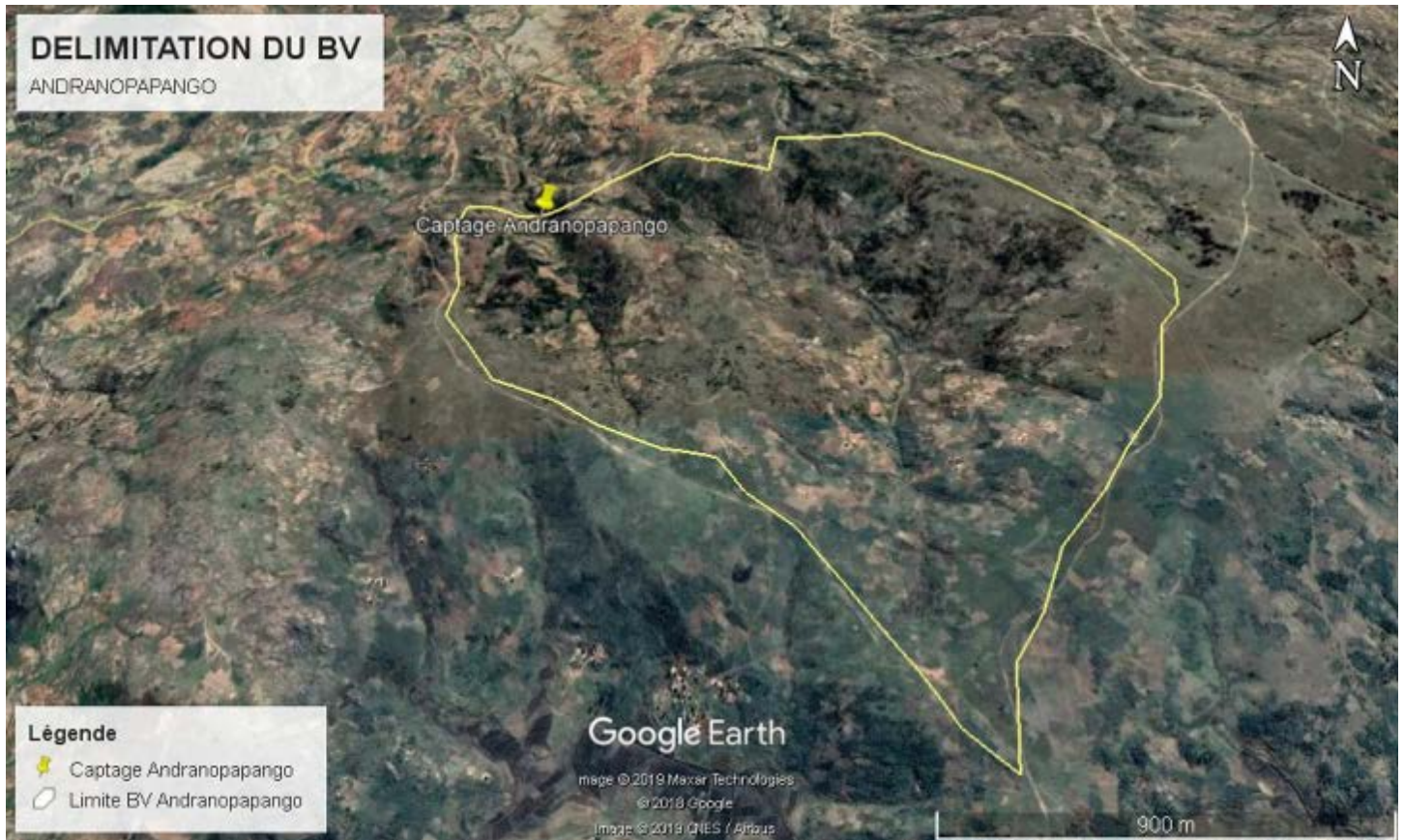


### ZOOM 3 PLAN DE FERRAILLAGE





AMELIORATION DE L'ALIMENTATION EN EAU POTABLE  AMBOHITSIMANDVA  ZOOM 1 ET ZOOM 2 PLAN DE FERRAILLAGE BARRAGE HYBRIDE ANDRANOPAPANGO	ECHELLE 1/50	Dessiné par
	Date Juin 2020	Vérifié par
PLAN N°	B07	




## ANNEXE VIII : DELIMITATION DU BV








Nom de l'ouvrage		BARRAGE AMBOHITSIMANOVA		FICHE D'INSPECTION VISUELLE DU BARRAGE  (Surveillance régulière de l'ouvrage)			
Date d'inspection		23 / 06 / 2022 (jj / mm / aa)					
Heure d'inspection		10 h 00 mn					
Nom des inspecteurs		Fanilo RAKOTONIRAINY		Hauteur du barrage		4,00	[m]
				Hauteur de retenue (Evacuateur de crue)		3,50	[m]
Météo lors de la visite		<input checked="" type="checkbox"/> Beau temps / <input type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie		Côte du plan d'eau par rapport à la base du barrage		3,51	[m]
Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner	
<i>Parement aval</i>	- Venues d'eau au travers du barrage  - Détection de présence d'amorces de glissement, d'animaux fouisseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS	
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Creusement de ravines	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence d'effondrement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Etat de la végétation	Bon				
<i>Pied du parement aval</i>	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS	
		Présence d'humidité	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non	Présence d'autres sources d'émergence au niveau de la rive droite, au pied du barrage (Aucun n'impact majeur pour l'ouvrage)			
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				

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<i>Appuis RG / RD</i>	- Venues d'eau en provenance de la retenue	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
<i>Vidange de fond</i>	- Fissure - Etat des vannes	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Etat général	Bon			
<i>Evacuateur de crue</i>	- Fissure - Erosions des radiers - Etat des bétons - Tassement	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de tassement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat du seuil	Bon			
		Etat du coursier	Bon			
		Etat général	Bon			
<i>Crête de barrage</i>	- Tassement différentiel	Apparition de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Tassement de la crête	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			

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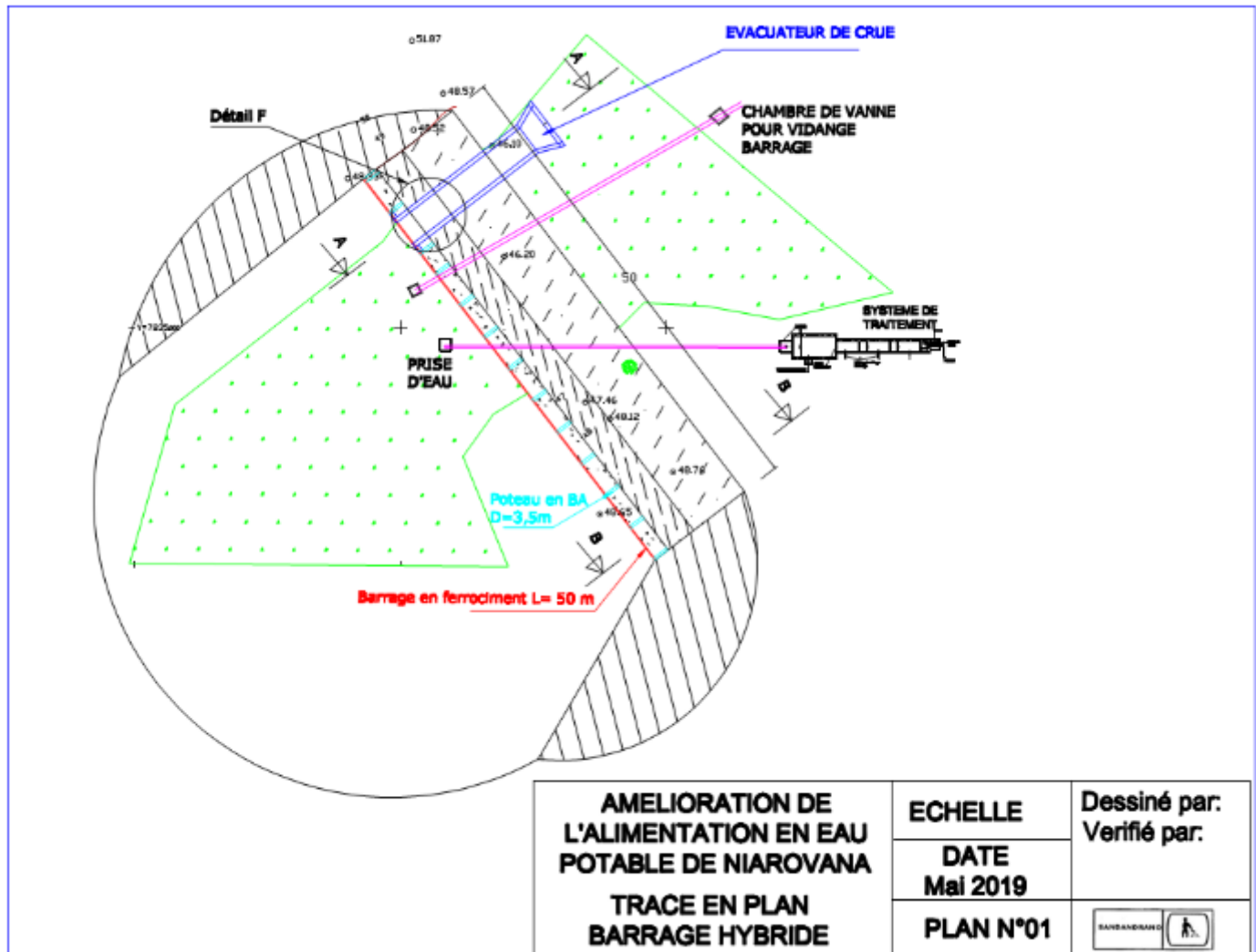
	- Affaissement					
		Présence de point bas	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
<i>Parement amont</i>	- Défauts de forme majeur (cloques, boursofflures, déchirement) de l'étanchéité amont	Liaison terre-ferrociment	Bon			RAS
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Armatures apparentes	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
<i>Prise d'eau</i>	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Envasement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
<i>Bassin versant</i>	- Formation de ravines Erosion	Présence d'érosion	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Renforcer la restriction pour les cultures dans la zone de protection rapprochée (Glissement de terrain sur le bassin versant latéral)		Restreindre la culture dans les 150 m aux environs du barrage, Renforcer le reboisement lors de la prochaine campagne
		Présence de fontis	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Etat de la végétation	Bon			
<i>Panneaux de sécurité</i>		Existence	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			



## ANNEX 31.3 SITE DE NIAROVANA CAROLINE

<b>FICHE TECHNIQUE DU BARRAGE DE NIAROVANA CAROLINE</b>			
<i>Localisation du barrage</i>			
<b>Région</b>	ATSINANANA	<b>Localité</b>	Ambodiriana
<b>District</b>	Vatomandry	<b>Coordonnées GPS de l'emplacement du barrage</b>	
<b>Commune</b>	Niarovana Caroline	<b>Latitude</b>	<b>Longitude</b>
<b>Fokontany</b>	Bonaka	19°33'57.80" S	48°45'32.90" E
<i>Informations sur le barrage</i>			
<b>Nom de la source / rivière / lac</b>	Ambodiriana		
<b>Année de construction</b>	2020		
<b>Année de réhabilitation</b>	-		
<b>Site Hydrique</b>	<input checked="" type="checkbox"/> Au point d'émergence d'une source <input type="checkbox"/> Au travers d'un cours d'eau <input type="checkbox"/> A l'exutoire d'un lac <input type="checkbox"/> Au pourtour d'un lac <input type="checkbox"/> Autres à préciser :		
<b>Type de barrage</b>	<input checked="" type="checkbox"/> Barrage hybride <input type="checkbox"/> Barrage en béton armé <input type="checkbox"/> Barrage en béton cyclopéen <input type="checkbox"/> Barrage en maçonnerie <input type="checkbox"/> Autres à préciser :		
<b>Type de terrain de fondation</b>	<input checked="" type="checkbox"/> Alluvion <input type="checkbox"/> Argile <input type="checkbox"/> Roc		

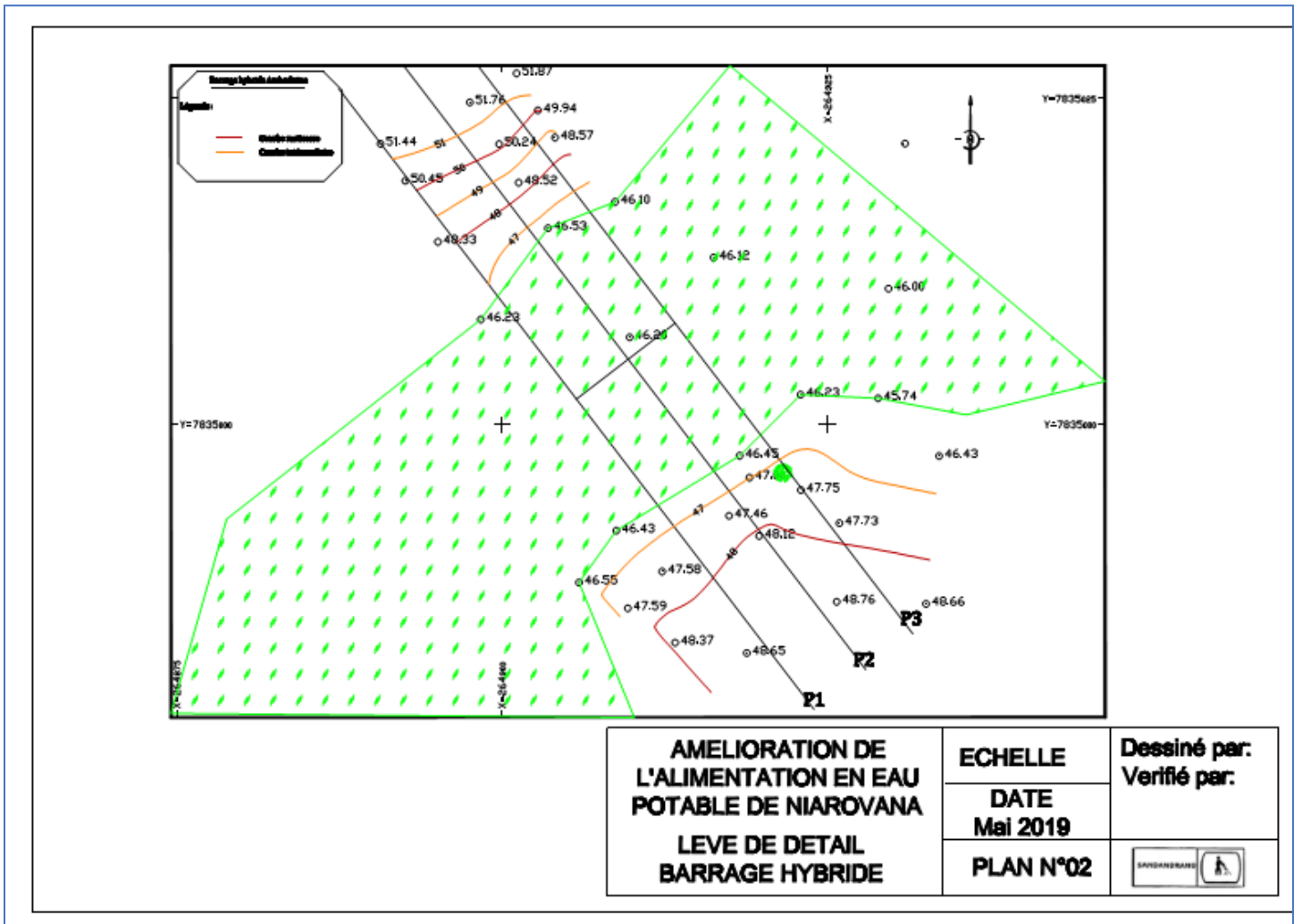
	<input type="checkbox"/> Nature inconnue <input type="checkbox"/> Autres à préciser :			
<b>Type d'usage</b>	<input checked="" type="checkbox"/> Alimentation en eau potable <input checked="" type="checkbox"/> Agriculture <input type="checkbox"/> Pisciculture <input type="checkbox"/> Autres à préciser :			
<b>Descriptions techniques du barrage</b>				
<b>Longueur de l'ouvrage</b>	50,00	[m]	<b>Largeur en crête</b>	1,50 [m]
<b>Hauteur du barrage</b>	3,00	[m]	<b>Largeur de la base</b>	9,33 [m]
<b>Hauteur de retenue</b>	2,50	[m]	<b>Superficie du plan d'eau</b>	0,47 [Ha]
<b>Fruit du parement amont</b>			<b>Capacité de la retenue</b>	5 700 [m <sup>3</sup> ]
<b>Fruit du parement aval</b>	1/2		<b>Superficie du BV alimentant le barrage</b>	13,70 [Ha]
<b>Evacuateur de crues</b>	Ouverture de 2,50 m			
<b>Ouvrage de vidange</b>	- Forme rectangulaire 0,60mx0,60m équipé de vanne		<b>Prise d'eau / captage</b>	PVC DNI 10
<b>Gestionnaire</b>				
<b>Entreprise</b>	2ADH			
<b>Adresse siège</b>	Lot 86 Tanambao 67ha Sud – Antananarivo			
<b>Courriel siège</b>	<a href="mailto:acdevl@yahoo.fr">acdevl@yahoo.fr</a>			
<b>Téléphone responsable site</b>	034 03 678 03		<b>Nom responsable site</b>	Mr Rémi
<b>Téléphone directeur</b>	034 20 663 89		<b>Nom responsable société</b>	Mr Simon
<b>Listes des annexes</b>				
1. Vue en plan	2. Levé de détails	3. Coupe B – B	4. Coupe A – A	
5. Bassin versant d'Ambodiriana				

## ANNEXE I : VUE EN PLAN DU BARRAGE AMBODIRIANA

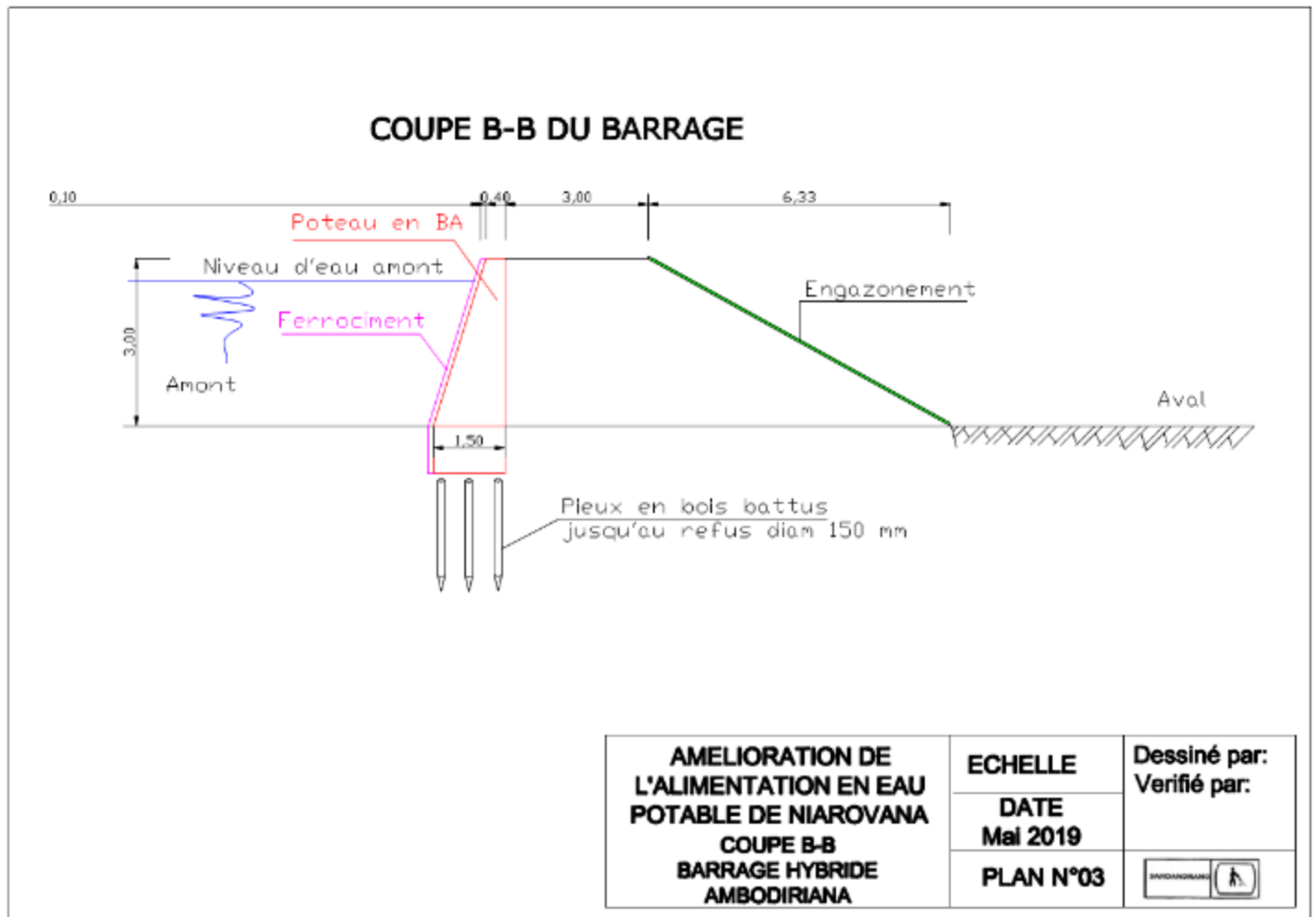


<b>AMELIORATION DE                  L'ALIMENTATION EN EAU                  POTABLE DE NIAROVANA</b>  <b>TRACE EN PLAN                  BARRAGE HYBRIDE</b>	<b>ECHELLE</b>	Dessiné par: Verifié par:
	<b>DATE</b> Mai 2019	
	<b>PLAN N°01</b>	 

## ANNEXE II : LEVE DE DETAILS BARRAGE HYBRIDE AMBODIRIANA

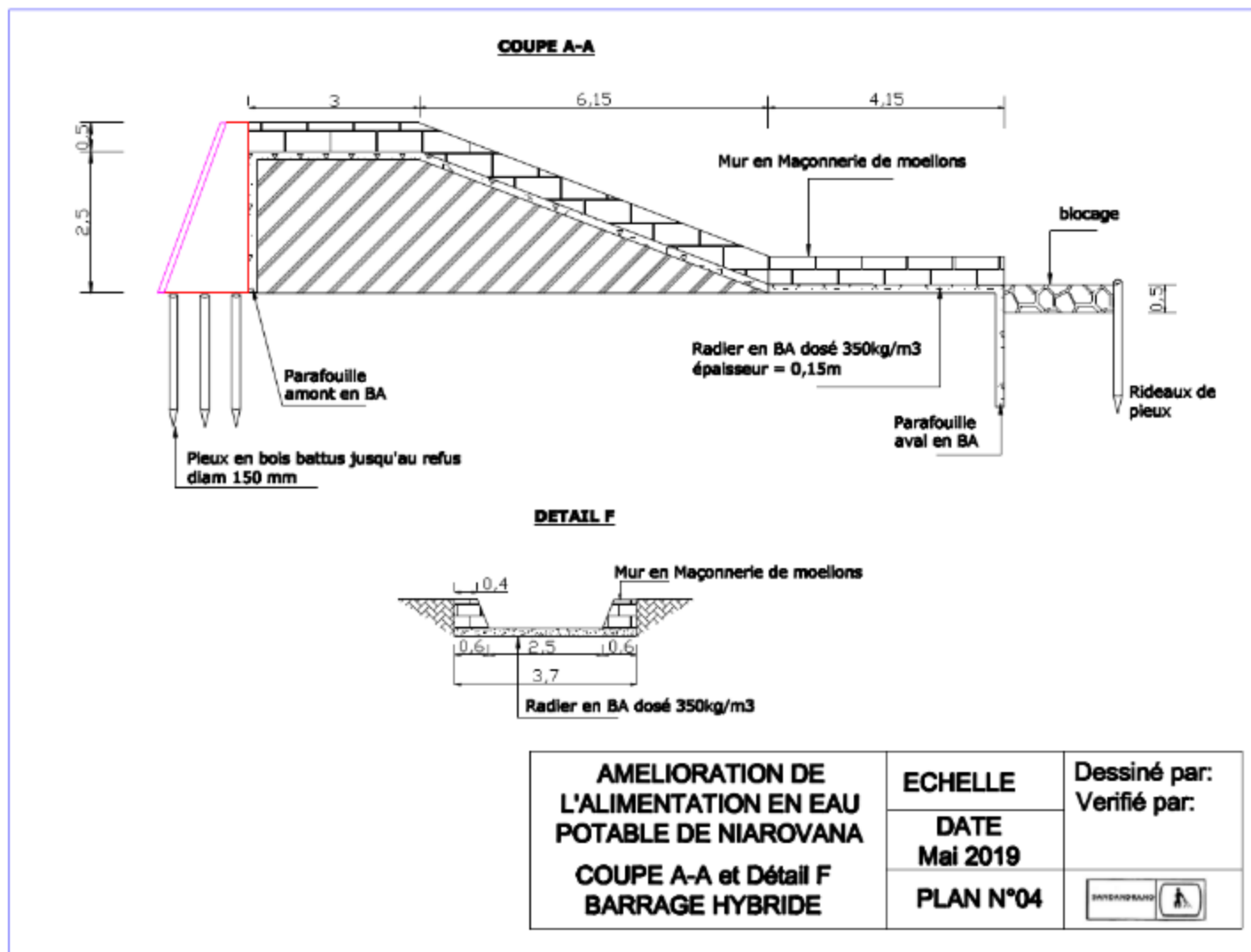


### ANNEXE III : COUPE B – B DU BARRAGE HYBRIDE AMBODIRIANA

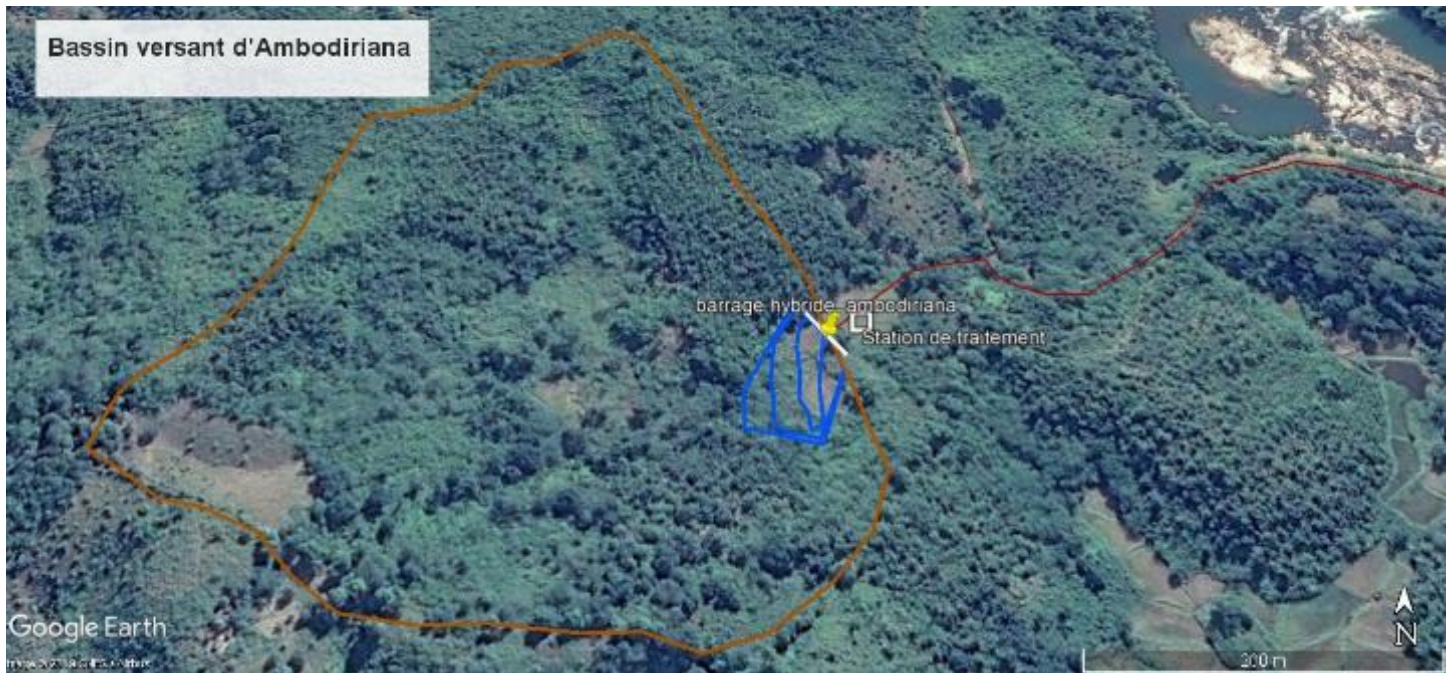









## ANNEXE IV : COUPE A – A DU BARRAGE HYBRIDE AMBODIRIANA







## ANNEXE V : BASSIN VERSANT D'AMBODIRIANA






Plan d'eau – 0,47ha	
BV Retenue 13ha	
Transfert	

Nom de l'ouvrage		BARRAGE NIAROVANA CAROLINE		FICHE D'INSPECTION VISUELLE DU BARRAGE  (Surveillance régulière de l'ouvrage)		
Date d'inspection		04 / 07 / 2022 (jj / mm / aa)				
Heure d'inspection		11 h 10 mn				
Nom des inspecteurs		RAKOTONIRAINY Fanilo	ANDRIAMIRIJA Fenosoa	Hauteur du barrage		3,00 [m]
		RAZAFITSIATOSIKA Fetra	NASOLONANAHARY Andry	Hauteur de retenue (Evacuateur de crue)		2,50 [m]
Météo lors de la visite		<input type="checkbox"/> Beau temps / <input checked="" type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie		Côte du plan d'eau par rapport à la base du barrage		2,51 [m]
Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner
<i>Parement aval</i>	- Venues d'eau au travers du barrage  - Détection de présence d'amorces de glissement, d'animaux fouisseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Le parement aval est en bon état		RAS
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Creusement de ravines	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence d'effondrement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
<i>Pied du parement aval</i>	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La partie aval est une zone marécageuse		Vérifier périodiquement l'évolution des zones humides afin d'assurer que le barrage ne fuite pas
		Présence d'humidité	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
<i>Appuis RG / RD</i>		Présence de végétation arbustive	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS



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	- Venues d'eau en provenance de la retenue	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
Vidange de fond	- Fissure - Etat des vannes	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS	
		Etat général	Bon				
Evacuateur de crue	- Fissure - Erosions des radiers - Etat des bétons - Tassement	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			Installer un drain si la fuite d'eau monte en conséquence	
		Présence de fissure	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non	La RG présente une petite fuite d'eau survenue de source au niveau latéral			
		Présence de tassement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Etat du seuil	Bon				
		Etat du coursier	Bon				
		Etat général	Bon				
Crête de barrage	- Tassement différentiel - Affaissement	Apparition de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La terre prend place depuis ces années d'exploitation		Remblayer et compacter la crête du barrage (Répéter l'action dès qu'il y a un tassement d'environ 10 cm)	
		Tassement de la crête	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non				
		Présence de point bas	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non				
Parement amont	- Défauts de forme majeur (cloques,	Liaison terre-ferrociment	Moyen			Remblayer la crête du barrage s'il y a un	




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	boursoufflures, déchirement) de l'étanchéité amont					tassement d'environ 10 cm
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Armatures apparentes	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
Prise d'eau	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			Nettoyer et vidanger le barrage avant la saison des pluies
		Envasement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
Bassin versant	- Formation de ravines Erosion	Présence d'érosion	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Présence de fontis	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
Panneaux de sécurité		Existence	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS




## ANNEX 3 I.4 SITE D'AMBILA LEMAITSO

Nom de l'ouvrage		BARRAGE AMBILA		FICHE D'INSPECTION VISUELLE DU BARRAGE  (Surveillance régulière de l'ouvrage)		
Date d'inspection		05 / 07 / 2022 (jj / mm / aa)				
Heure d'inspection		11 h 30 mn				
Nom des inspecteurs		RAKOTONIRAINY Fanilo	ANDRIAMIRIJA Fenosoa	Hauteur du barrage		4,00 [m]
		RAZAFITSIATOSIKA Fetra	NASOLONANAHARY Andry	Hauteur de retenue (Evacuateur de crue)		3,70 [m]
Météo lors de la visite		<input checked="" type="checkbox"/> Beau temps / <input type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie		Côte du plan d'eau par rapport à la base du barrage		3,71 [m]
Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner
<i>Parement aval</i>	- Venues d'eau au travers du barrage  - Détection de présence d'amorces de glissement, d'animaux fouisseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	En général, l'état du parement aval est bon		RAS
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Creusement de ravines	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence d'effondrement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
<i>Pied du parement aval</i>	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La zone est plutôt sablonneuse, et c'est normal qu'il y ait une petite remontée d'eau dans la partie aval (nappe libre) puisque le barrage est plein à ras-bord. En période sèche, le niveau de la nappe descend et il n'y		Bien que cette situation ne présente pas beaucoup de risque, il faut suivre de près l'évolution de cette situation
		Présence d'humidité	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fuite	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			

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				aura plus de suintement		
<i>Appuis RG / RD</i>	- Venues d'eau en provenance de la retenue	Présence de végétation arbustive	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS
		Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
<i>Vidange de fond</i>	- Fissure	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Il n'y pas de vidange car initialement, c'était déjà un lac dont on a juste augmenté le volume de stockage		
	- Etat des vannes	Etat général	Pas de vidange installé			
<i>Evacuateur de crue</i>	- Fissure - Erosions des radiers - Etat des bétons - Tassement	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	En général, l'état de l'évacuateur de crue est bon bien qu'il y ait une dégradation au niveau de la sortie d'eau		Réparation des fissures
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de tassement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat du seuil	Bon			
		Etat du coursier	Moyen			
		Etat général	Bon			
<i>Crête de barrage</i>	- Tassement différentiel - Affaissement	Apparition de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La terre commence à prendre place et nécessite d'être rechargée		Recharger par de remblai à chaque constatation de tassement différentiel (entretien périodique de routine après constatation d'un tassement d'environ 10 cm)
		Tassement de la crête	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de point bas	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
<i>Parement amont</i>		Liaison terre-ferrociment	Bon			

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	- Défauts de forme majeur (cloques, boursoflures, déchirement) de l'étanchéité amont	Présence de fissure	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non	Une petite fissure se présente au niveau du parement amont		Réparation des fissures lorsque l'occasion se présentera en été
		Armatures apparentes	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
<i>Prise d'eau</i>	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La prise est renforcée par une motopompe pour les périodes sèches		RAS
		Envasement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
<i>Bassin versant</i>	- Formation de ravines Erosion	Présence d'érosion	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Présence de fontis	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
<i>Panneaux de sécurité</i>		Existence	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	L'ouvrage est clôturé et gardé		Mise en place d'un panneau signalétique



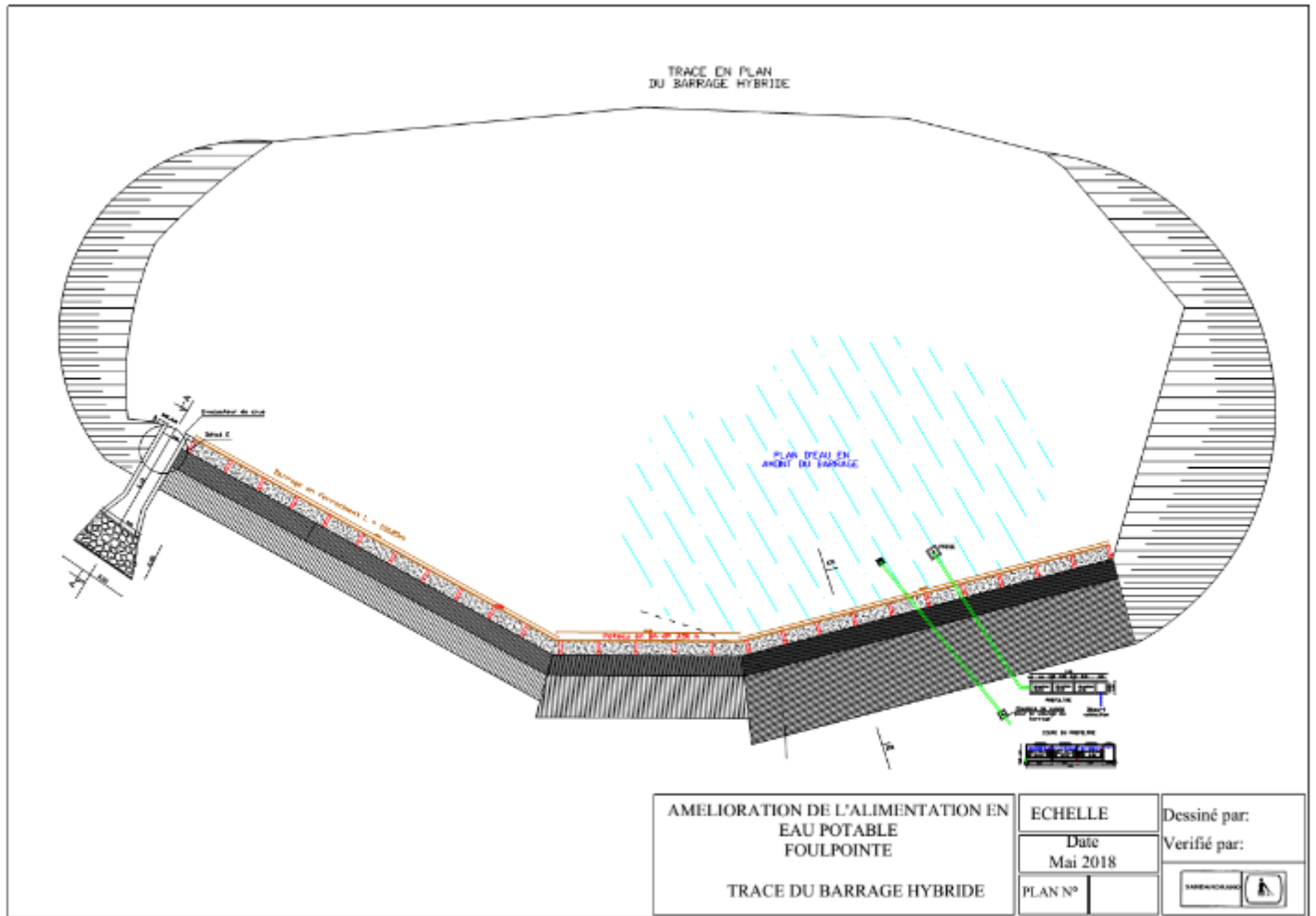
## ANNEX 3 I. 5 SITE DE FOULPOINTE

Date de visite 07 Juillet 2022

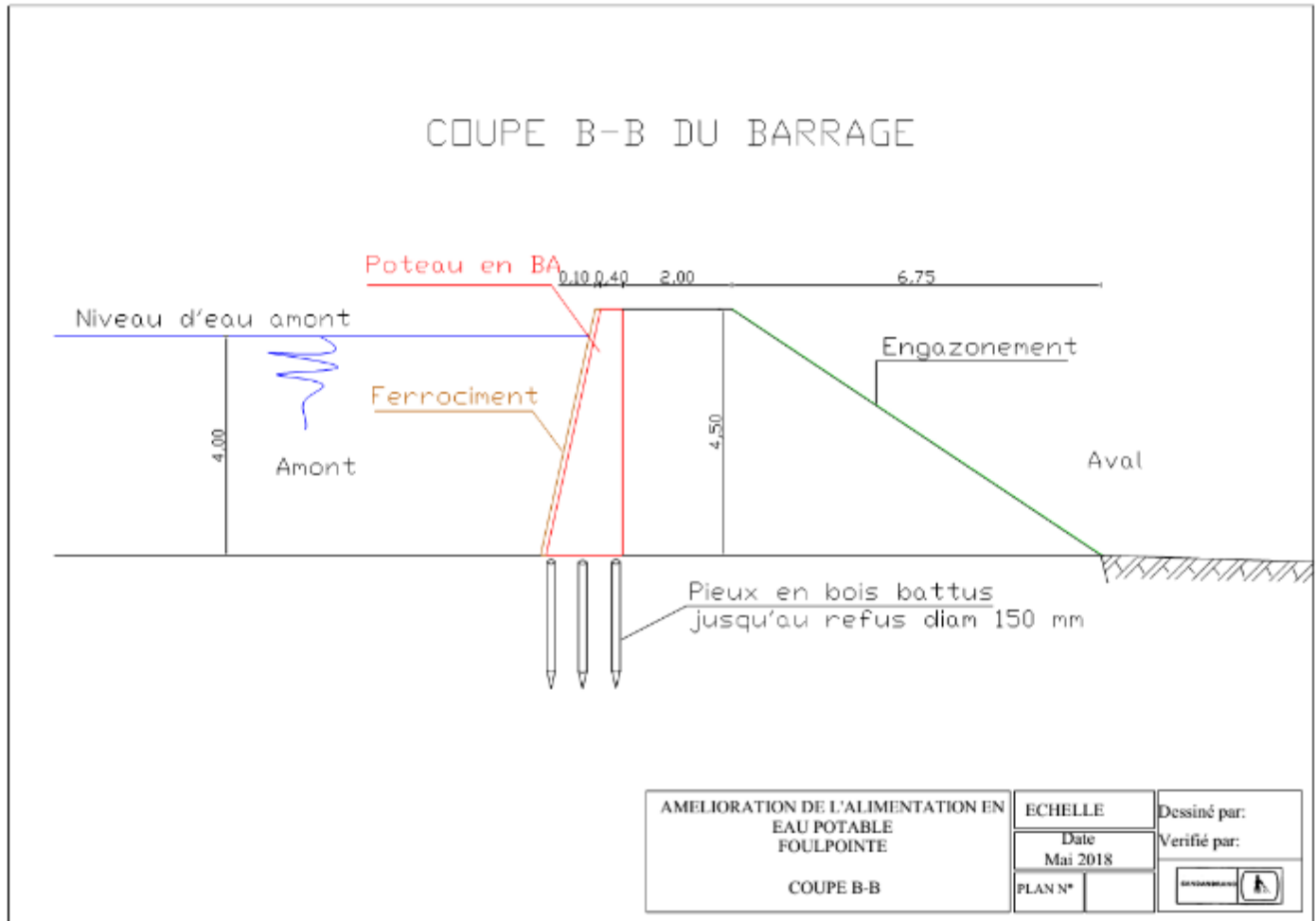
<b>FICHE TECHNIQUE DU BARRAGE DE FOULPOINTE</b>			
<i>Localisation du barrage</i>			
<b>Région</b>	ATSINANANA	<b>Localité</b>	Ranomainty
<b>District</b>	Toamasina II	<b>Coordonnées GPS de l'emplacement du barrage</b>	
<b>Commune</b>	Foulpointe	<b>Latitude</b>	<b>Longitude</b>
<b>Fokontany</b>	Foulpointe	17°42'14.33" S	49°28'39.47" E
<i>Informations sur le barrage</i>			
<b>Nom de la source / rivière / lac</b>	Ranomainty		
<b>Année de construction</b>	2019		
<b>Année de réhabilitation</b>	-		
<b>Site Hydrique</b>	<input type="checkbox"/> Au point d'émergence d'une source <input type="checkbox"/> Au travers d'un cours d'eau <input checked="" type="checkbox"/> A l'exutoire d'un lac <input type="checkbox"/> Au pourtour d'un lac <input type="checkbox"/> Autres à préciser :		
<b>Type de barrage</b>	<input checked="" type="checkbox"/> Barrage hybride <input type="checkbox"/> Barrage en béton armé <input type="checkbox"/> Barrage en béton cyclopéen <input type="checkbox"/> Barrage en maçonnerie <input type="checkbox"/> Autres à préciser :		
<b>Type de terrain de fondation</b>	<input checked="" type="checkbox"/> Alluvion <input type="checkbox"/> Argile <input type="checkbox"/> Roc <input type="checkbox"/> Nature inconnue <input type="checkbox"/> Autres à préciser :		

<b>Type d'usage</b>	<input checked="" type="checkbox"/> Alimentation en eau potable <input checked="" type="checkbox"/> Agriculture <input type="checkbox"/> Pisciculture <input type="checkbox"/> Autres à préciser :				
<b>Descriptions techniques du barrage</b>					
<b>Longueur de l'ouvrage</b>	160	[m]	<b>Largeur en crête</b>	2,00	[m]
<b>Hauteur du barrage</b>	4,00	[m]	<b>Largeur de la base</b>	8,75	[m]
<b>Hauteur de retenue</b>	3,50	[m]	<b>Superficie du plan d'eau</b>	2,30	[Ha]
<b>Fruit du parement amont</b>			<b>Capacité de la retenue</b>	43 000	[m <sup>3</sup> ]
<b>Fruit du parement aval</b>	2/3		<b>Superficie du BV alimentant le barrage</b>	14	[Ha]
<b>Evacuateur de crues</b>	Ouverture de 2,00 m				
<b>Ouvrage de vidange</b>			<b>Prise d'eau / captage</b>	PVC DNI40	
<b>Gestionnaire</b>					
<b>Entreprise</b>	SANDANDRANO				
<b>Adresse siège</b>	Lot G3 bis Namehana, Antananarivo 103				
<b>Courriel siège</b>	<a href="mailto:Manjaka.Razafinjato@sandandrano.com">Manjaka.Razafinjato@sandandrano.com</a>				
<b>Téléphone responsable site</b>	034 77 537 88		<b>Nom responsable site</b>	Mme Faniry	
<b>Téléphone Assistant manager</b>	034 09 437 70		<b>Nom responsable société</b>	RAZAFINJATO Manjaka	
<b>Listes des annexes</b>					
I. Tracé du barrage hybride	2. Coupe B – B		3. Coupe A – A		4. Bassin versant de Foulpointe

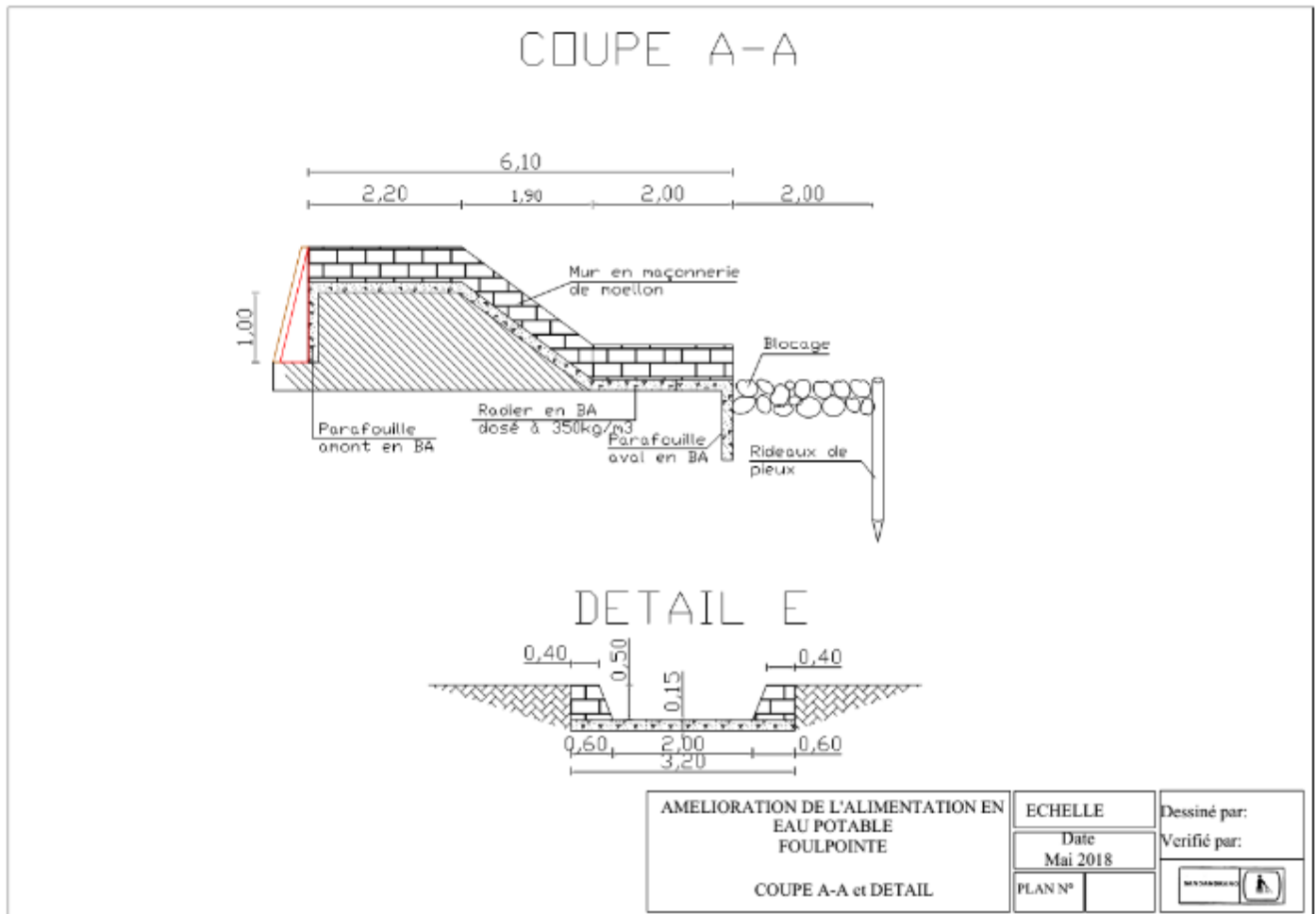
# ANNEXE I : TRACE DU BARRAGE HYBRIDE RANOMAINTY



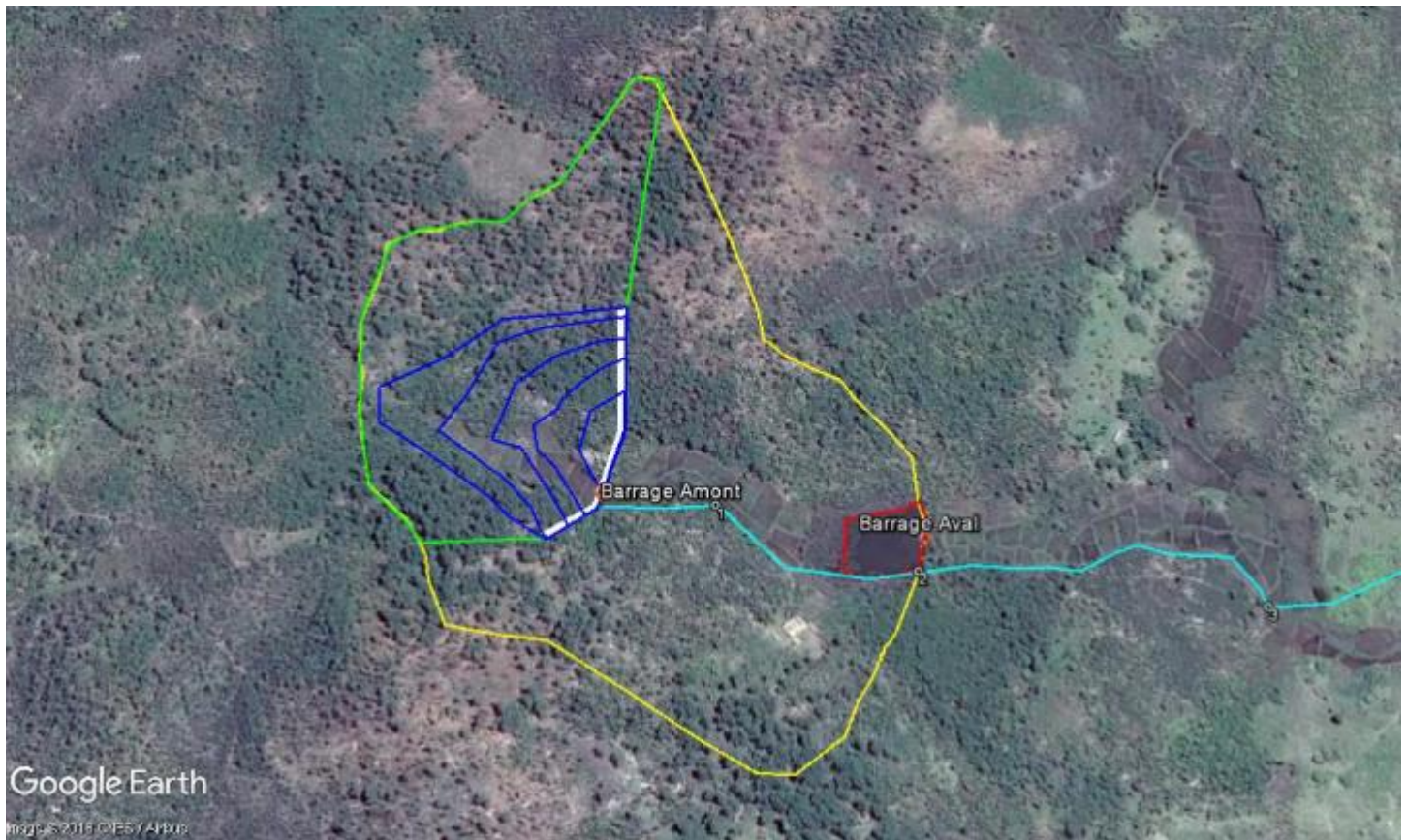
## ANNEXE II : COUPE B – B DU BARRAGE HYBRIDE RANOMAINTY










### ANNEXE III : COUPE A – A DU BARRAGE HYBRIDE RANOMAINTY






## ANNEXE IV : DELIMITATION BASSIN VERSANT DE RANOMAINTY



Plan d'eau – 2,3ha	
BV Retenue amont 6ha	
BV Ranomainty 14ha	
Retenue aval : 0,3ha	
Transfert	





Nom de l'ouvrage		BARRAGE FOULPOINTE		<b>FICHE D'INSPECTION VISUELLE DU BARRAGE</b>  <b>(Surveillance régulière de l'ouvrage)</b>		
Date d'inspection		07 / 07 / 2022 (jj / mm / aa)				
Heure d'inspection		10 h 00 mn				
Nom des inspecteurs		RAKOTONIRAINY Fanilo	ANDRIAMIRIJA Fenosoa	Hauteur du barrage		4,00 [m]
		RAZAFITSIATOSIKA Fetra		Hauteur de retenue (Evacuateur de crue)		3,50 [m]
Météo lors de la visite		<input type="checkbox"/> Beau temps / <input checked="" type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie		Côte du plan d'eau par rapport à la base du barrage		2,80 [m]
Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner
<i>Parement aval</i>	- Venues d'eau au travers du barrage  - Détection de présence d'amorces de glissement, d'animaux fouisseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Creusement de ravines	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence d'effondrement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
<i>Pied du parement aval</i>	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non	L'entreprise a installé une bonde de fond DNI40 partiellement ouvert pour drainer l'eau		Vérifier périodiquement si des fuites ou suintement se présente au pied du barrage
		Présence d'humidité	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
<i>Appuis RG / RD</i>		Présence de végétation arbustive	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS

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	- Venues d'eau en provenance de la retenue	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
<i>Vidange de fond</i>	- Fissure	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
	- Etat des vannes	Etat général	Bon			
<i>Evacuateur de crue</i>	- Fissure	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	L'évacuateur de crue est en bon état		RAS
	- Erosions des radiers	Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
	- Etat des bétons	Présence de tassement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
	- Tassement	Etat du seuil	Bon			
		Etat du coursier	Bon			
		Etat général	Bon			
<i>Crête de barrage</i>	- Tassement différentiel	Apparition de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La crête du barrage présente un tassement conséquent qui nécessite d'être rechargé		L'ouvrage nécessite d'être rechargé de remblai pour compenser le tassement
	- Affaissement	Tassement de la crête	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de point bas	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
<i>Parement amont</i>	- Défauts de forme majeur (cloques, boursoufflures,	Liaison terre-ferrociment	Bon			
		Présence de fissure	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non	La majorité des fissures est déjà		Traiter toutes les parties fissurées en



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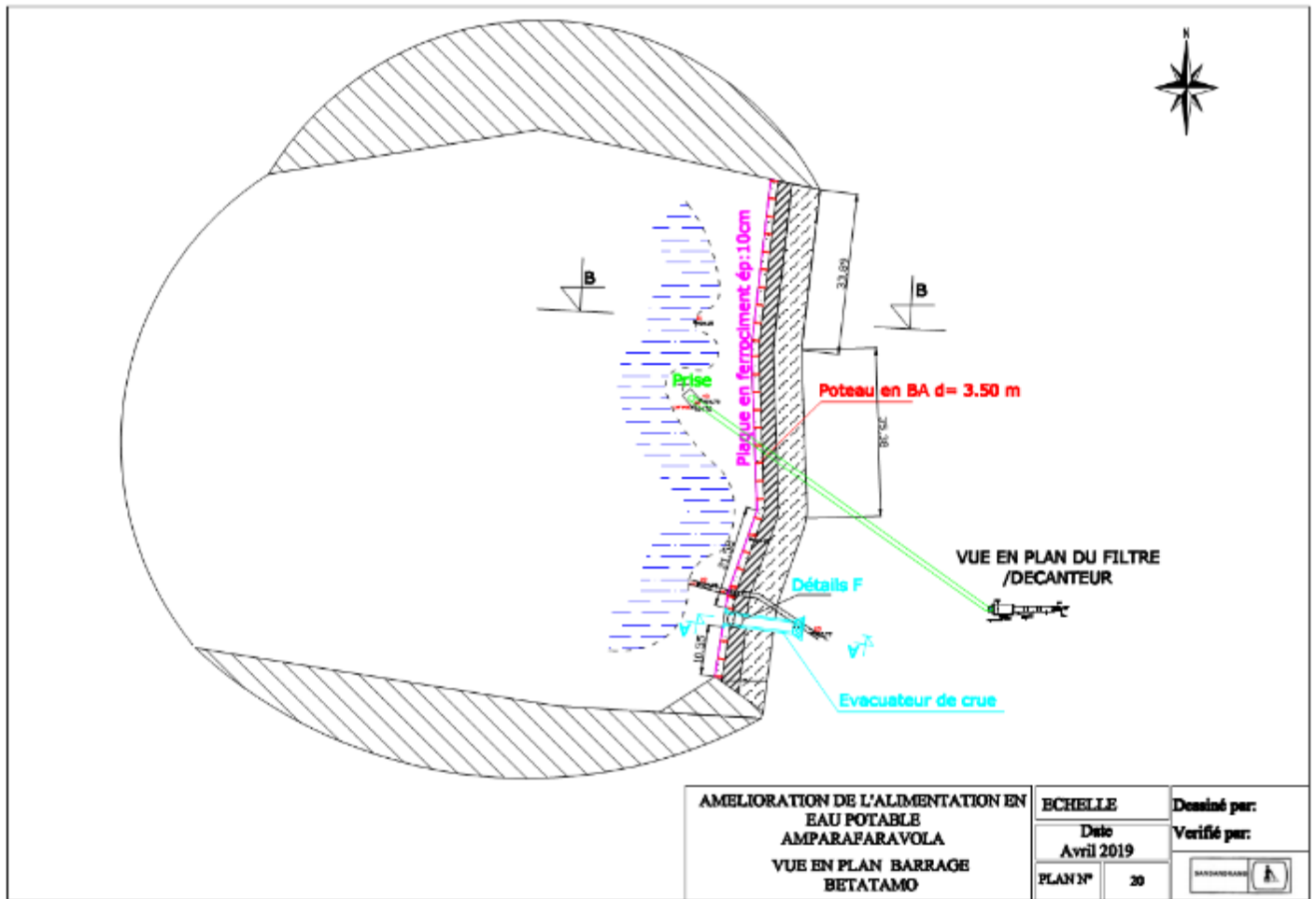
	déchirement) de l'étanchéité amont			traitée toutefois il reste encore quelques lignes		période d'étiage afin d'assurer l'étanchéisation du barrage par la voile en ferrociment
		Armatures apparentes	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
Prise d'eau	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Envasement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
Bassin versant	- Formation de ravines	Présence d'érosion	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
	Erosion	Présence de fontis	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
Panneaux de sécurité		Existence	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS

## ANNEX 31.6 SITE D'AMPARAFARAVOLA

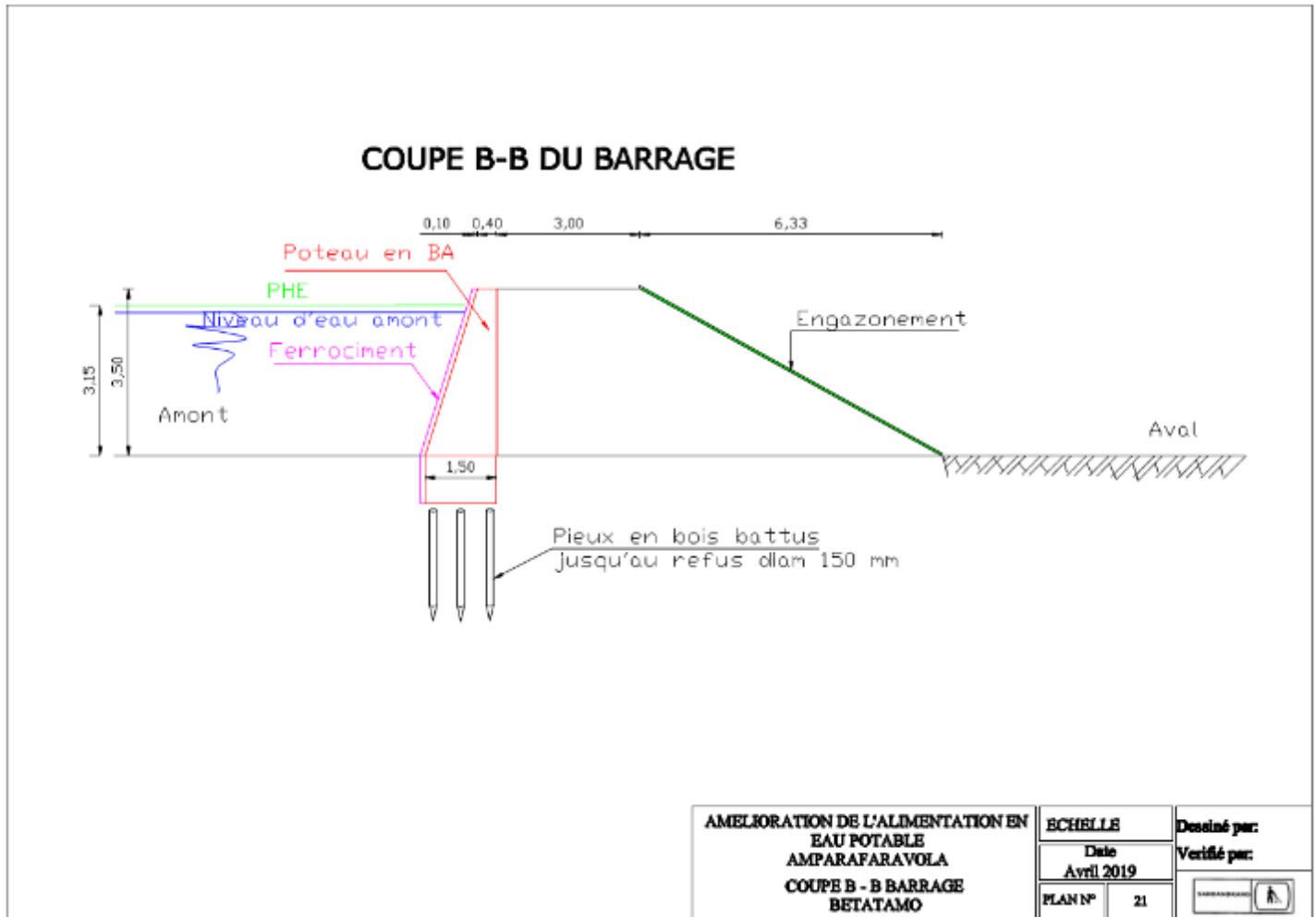
<b>FICHE TECHNIQUE DU BARRAGE D'AMPARAFARAVOLA</b>			
<i>Localisation du barrage</i>			
<b>Région</b>	ALAOTRA MANGORO	<b>Localité</b>	Betatamo
<b>District</b>	Amparafaravola	<b>Coordonnées GPS de l'emplacement du barrage</b>	
<b>Commune</b>	Amparafaravola	<b>Latitude</b>	<b>Longitude</b>
<b>Fokontany</b>	Amparafaravola	17°34'34.96" S	48° 8'27.24"E
<i>Informations sur le barrage</i>			
<b>Nom de la source / rivière / lac</b>	Betatamo		
<b>Année de construction</b>	2020		
<b>Année de réhabilitation</b>	2021		
<b>Site Hydrique</b>	<input type="checkbox"/> Au point d'émergence d'une source <input type="checkbox"/> Au travers d'un cours d'eau <input checked="" type="checkbox"/> A l'exutoire d'un lac <input type="checkbox"/> Au pourtour d'un lac <input type="checkbox"/> Autres à préciser :		
<b>Type de barrage</b>	<input checked="" type="checkbox"/> Barrage hybride <input type="checkbox"/> Barrage en béton armé <input type="checkbox"/> Barrage en béton cyclopéen <input type="checkbox"/> Barrage en maçonnerie <input type="checkbox"/> Autres à préciser :		
<b>Type de terrain de fondation</b>	<input type="checkbox"/> Alluvion <input checked="" type="checkbox"/> Argile <input type="checkbox"/> Roc <input type="checkbox"/> Nature inconnue <input type="checkbox"/> Autres à préciser :		

<b>Type d'usage</b>	<input checked="" type="checkbox"/> Alimentation en eau potable <input checked="" type="checkbox"/> Agriculture <input type="checkbox"/> Pisciculture <input type="checkbox"/> Autres à préciser :				
<b>Descriptions techniques du barrage</b>					
<b>Longueur de l'ouvrage</b>	120,00	[m]	<b>Largeur en crête</b>	1,00	[m]
<b>Hauteur du barrage</b>	3,50	[m]	<b>Largeur de la base</b>	9,15	[m]
<b>Hauteur de retenue</b>	3,00	[m]	<b>Superficie du plan d'eau</b>	2,90	[Ha]
<b>Fruit du parement amont</b>			<b>Capacité de la retenue</b>	56 400	[m <sup>3</sup> ]
<b>Fruit du parement aval</b>	1/2		<b>Superficie du BV alimentant le barrage</b>	35	[Ha]
<b>Evacuateur de crues</b>	Ouverture de 2 m				
<b>Ouvrage de vidange</b>	- Forme rectangulaire 0,60mx0,60m équipé de vanne		<b>Prise d'eau / captage</b>	PVC DNI25	
<b>Gestionnaire</b>					
<b>Entreprise</b>	EGC TAMBY				
<b>Adresse siège</b>	Antananarivo				
<b>Courriel siège</b>	<a href="mailto:egctamby.contact@gmail.com">egctamby.contact@gmail.com</a>				
<b>Téléphone responsable site</b>	034 09 072 63		<b>Nom responsable site</b>	Mr Muriel	
<b>Autre contact</b>	034 90 019 20				
<b>Listes des annexes</b>					
1. Vue en plan	2. Coupe B – B		3. Coupe A – A		4. Bassin versant de Betatamo

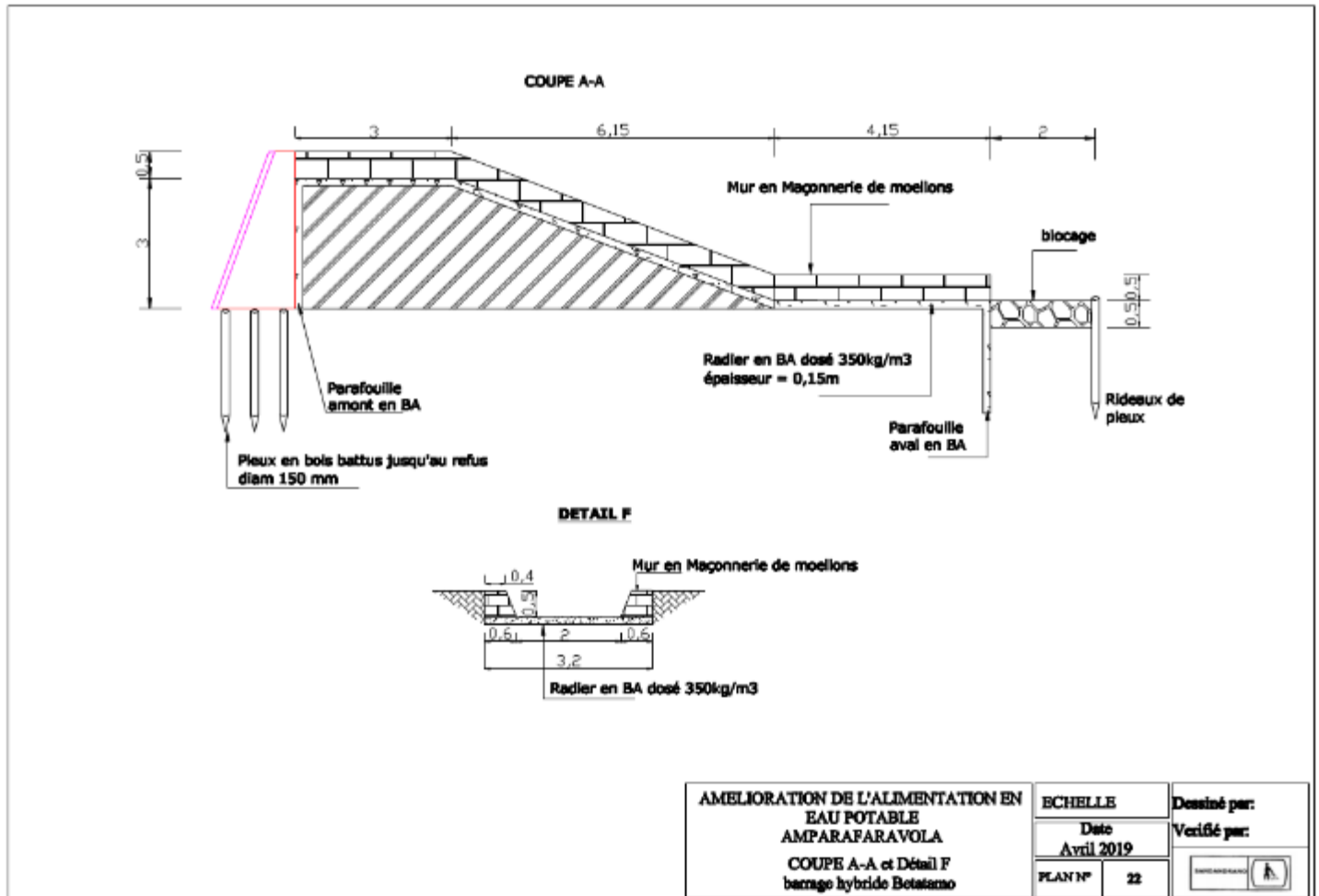
## ANNEXE I : VUE EN PLAN DU BARRAGE BETATAMO



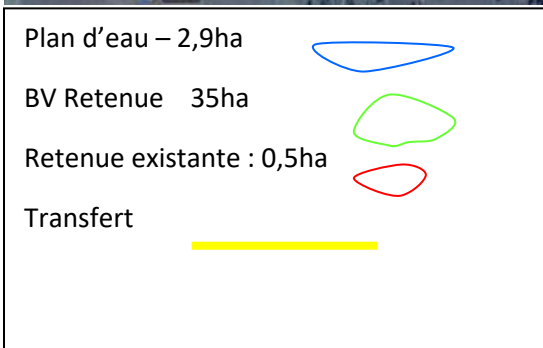
## ANNEXE II : COUPE B – B DU BARRAGE HYBRIDE BETATAMO





### ANNEXE III : COUPE A – A DU BARRAGE HYBRIDE BETATAMO





## ANNEXE IV : BASSIN VERSANT DE BETATAMO






Nom de l'ouvrage		BARRAGE AMPARAFARAVOLA		<b>FICHE D'INSPECTION VISUELLE DU BARRAGE</b>  <b>(Surveillance régulière de l'ouvrage)</b>		
Date d'inspection		09 / 07 / 2022 (jj / mm / aa)				
Heure d'inspection		10 h 00 mn				
Nom des inspecteurs		RAKOTONIRAINY Fanilo	ANDRIAMIRIJA Fenosoa	Hauteur du barrage		3,50 [m]
		RAZAFITSIATOSIKA Fetra		Hauteur de retenue (Evacuateur de crue)		3,00 [m]
Météo lors de la visite		<input checked="" type="checkbox"/> Beau temps / <input type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie		Côte du plan d'eau par rapport à la base du barrage		1,50 [m]
Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner
<i>Parement aval</i>	- Venues d'eau au travers du barrage  - Détection de présence d'amorces de glissement, d'animaux fouisseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	L'état général du parement aval est très moyen vue la hauteur des herbes et des arbustes		Entretien périodiquement la partie en terre en rechargeant de remblai et en débroussaillant les végétations
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Creusement de ravines	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence d'effondrement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Moyen			
<i>Pied du parement aval</i>	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Le pied du barrage présente quelques points de fuite dont on a besoin de traiter		Drainer l'eau dans la partie aval dans l'immédiat et réparer les fissures dans la partie amont pendant la période d'étiage
		Présence d'humidité	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fuite	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
<i>Appuis RG / RD</i>		Présence de végétation arbustive	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS



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	- Venues d'eau en provenance de la retenue	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	L'appui en RG et RD est généralement bon		
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
<i>Vidange de fond</i>	- Fissure - Etat des vannes	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La vanne est semi-ouverte afin de laisser passer un peu d'eau en aval pour avoir moins de charge en amont		RAS
		Etat général	Bon			
<i>Evacuateur de crue</i>	- Fissure - Erosions des radiers - Etat des bétons - Tassement	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Présence d'une ligne de fissure		Réparation de la fissure
		Présence de fissure	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de tassement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat du seuil	Bon			
		Etat du coursier	Bon			
		Etat général	Bon			
<i>Crête de barrage</i>	- Tassement différentiel - Affaissement	Apparition de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La terre s'est tassée et a besoin d'être chargée		Recharger par de remblai à chaque constatation de tassement différentiel (entretien périodique de routine après constatation d'un tassement d'environ 10 cm)
		Tassement de la crête	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de point bas	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
<i>Parement amont</i>	- Défauts de forme majeur (cloques, boursoufflures, déchirement) de l'étanchéité amont	Liaison terre-ferrociment	Bon	Présence de quelques fissures		Le parement amont nécessite une réfection de la voile en ferrociment pour l'étanchéiser
		Présence de fissure	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Armatures apparentes	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			

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		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Moyen			
<i>Prise d'eau</i>	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Envasement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
<i>Bassin versant</i>	- Formation de ravines Erosion	Présence d'érosion	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non	L'érosion risque encore une fois d'envahir le lac artificiel		Mener une grosse campagne de reboisement dans le bassin versant, et sur les BV latéraux dans l'immédiat
		Présence de fontis	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
<i>Panneaux de sécurité</i>		Existence	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			L'ouvrage nécessite d'être protégé convenablement tant au niveau du bassin versant que du barrage lui-même

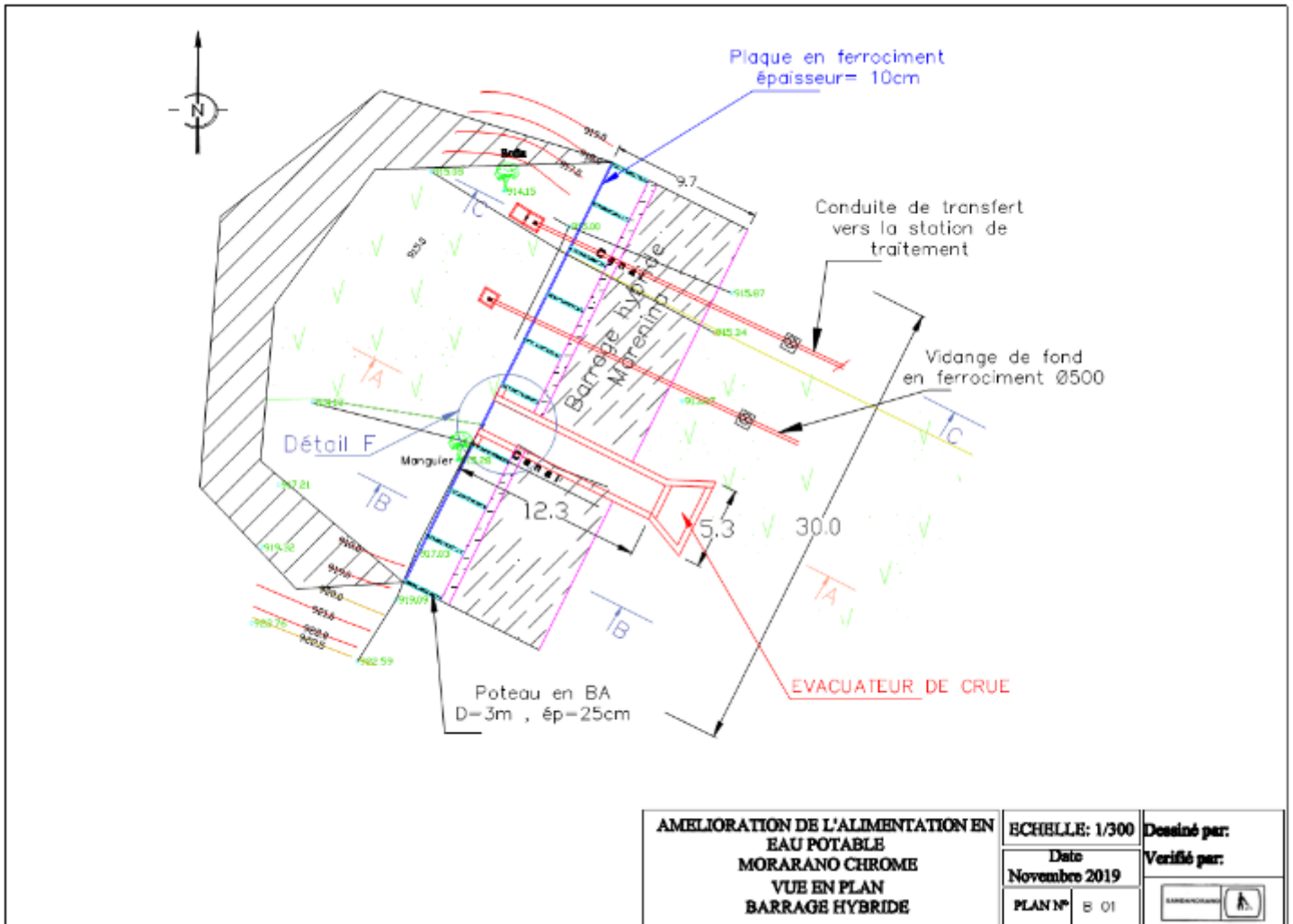
## ANNEX 31. 7 SITE DE MORARANO CHROME

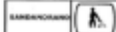
Date de visite 9 juillet 2022

<b>FICHE TECHNIQUE DU BARRAGE DE MORARANO CHROME</b>			
<i>Localisation du barrage</i>			
<b>Région</b>	ALAOTRA MANGORO	<b>Localité</b>	Marenina
<b>District</b>	Amparafaravola	<b>Coordonnées GPS de l'emplacement du barrage</b>	
<b>Commune</b>	Morarano Chrome	<b>Latitude</b>	<b>Longitude</b>
<b>Fokontany</b>	Morarano Chrome	17°46'18.34" S	48° 5'56.84" E
<i>Informations sur le barrage</i>			
<b>Nom de la source / rivière / lac</b>	Marenina		
<b>Année de construction</b>	2021		
<b>Année de réhabilitation</b>	2022		
<b>Site Hydrique</b>	<input type="checkbox"/> Au point d'émergence d'une source <input type="checkbox"/> Au travers d'un cours d'eau <input type="checkbox"/> A l'exutoire d'un lac <input type="checkbox"/> Au pourtour d'un lac <input checked="" type="checkbox"/> Autres à préciser : Création d'une retenue collinaire en captant les ruissellements		
<b>Type de barrage</b>	<input checked="" type="checkbox"/> Barrage hybride <input type="checkbox"/> Barrage en béton armé <input type="checkbox"/> Barrage en béton cyclopéen <input type="checkbox"/> Barrage en maçonnerie <input type="checkbox"/> Autres à préciser :		
<b>Type de terrain de fondation</b>	<input type="checkbox"/> Alluvion <input checked="" type="checkbox"/> Argile <input type="checkbox"/> Roc <input type="checkbox"/> Nature inconnue <input type="checkbox"/> Autres à préciser :		

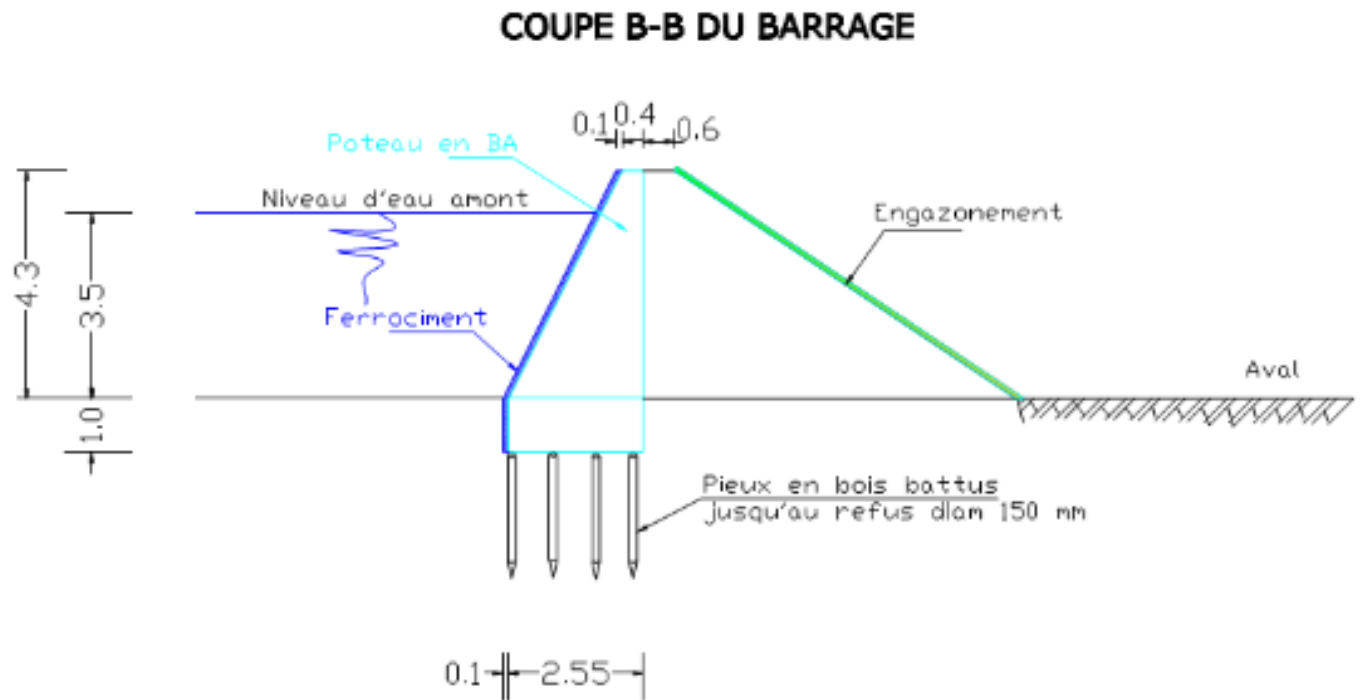
<b>Type d'usage</b>	<input checked="" type="checkbox"/> Alimentation en eau potable <input checked="" type="checkbox"/> Agriculture <input type="checkbox"/> Pisciculture <input type="checkbox"/> Autres à préciser :				
<b>Descriptions techniques du barrage</b>					
<b>Longueur de l'ouvrage</b>	30,00	[m]	<b>Largeur en crête</b>	1,00	[m]
<b>Hauteur du barrage</b>	4,30	[m]	<b>Largeur de la base</b>	9,60	[m]
<b>Hauteur de retenue</b>	3,50	[m]	<b>Superficie du plan d'eau</b>	1,75	[Ha]
<b>Fruit du parement amont</b>			<b>Capacité de la retenue</b>	40 000	[m <sup>3</sup> ]
<b>Fruit du parement aval</b>	1/2		<b>Superficie du BV alimentant le barrage</b>	13,70	[Ha]
<b>Evacuateur de crues</b>	Ouverture de 2 ml				
<b>Ouvrage de vidange</b>	Buses en ferrociment Ø500		<b>Prise d'eau / captage</b>	PVC DN90	
<b>Gestionnaire</b>					
<b>Entreprise</b>	LOVA VELU SARL				
<b>Adresse siège</b>	Antananarivo				
<b>Courriel siège</b>	<a href="mailto:lovavelu.sarl@gmail.com">lovavelu.sarl@gmail.com</a>				
<b>Téléphone responsable site</b>	034 06 518 58		<b>Nom responsable site</b>	Mr Samuel	
<b>Téléphone Directeur</b>	034 06 148 66		<b>Nom Directeur</b>	Mr Rado	
<b>Listes des annexes</b>					
1. Vue en plan	2. Coupe B – B	3. Coupe A – A	4. Bassin versant de Marenina		

## ANNEXE I : VUE EN PLAN DU BARRAGE MARENINA

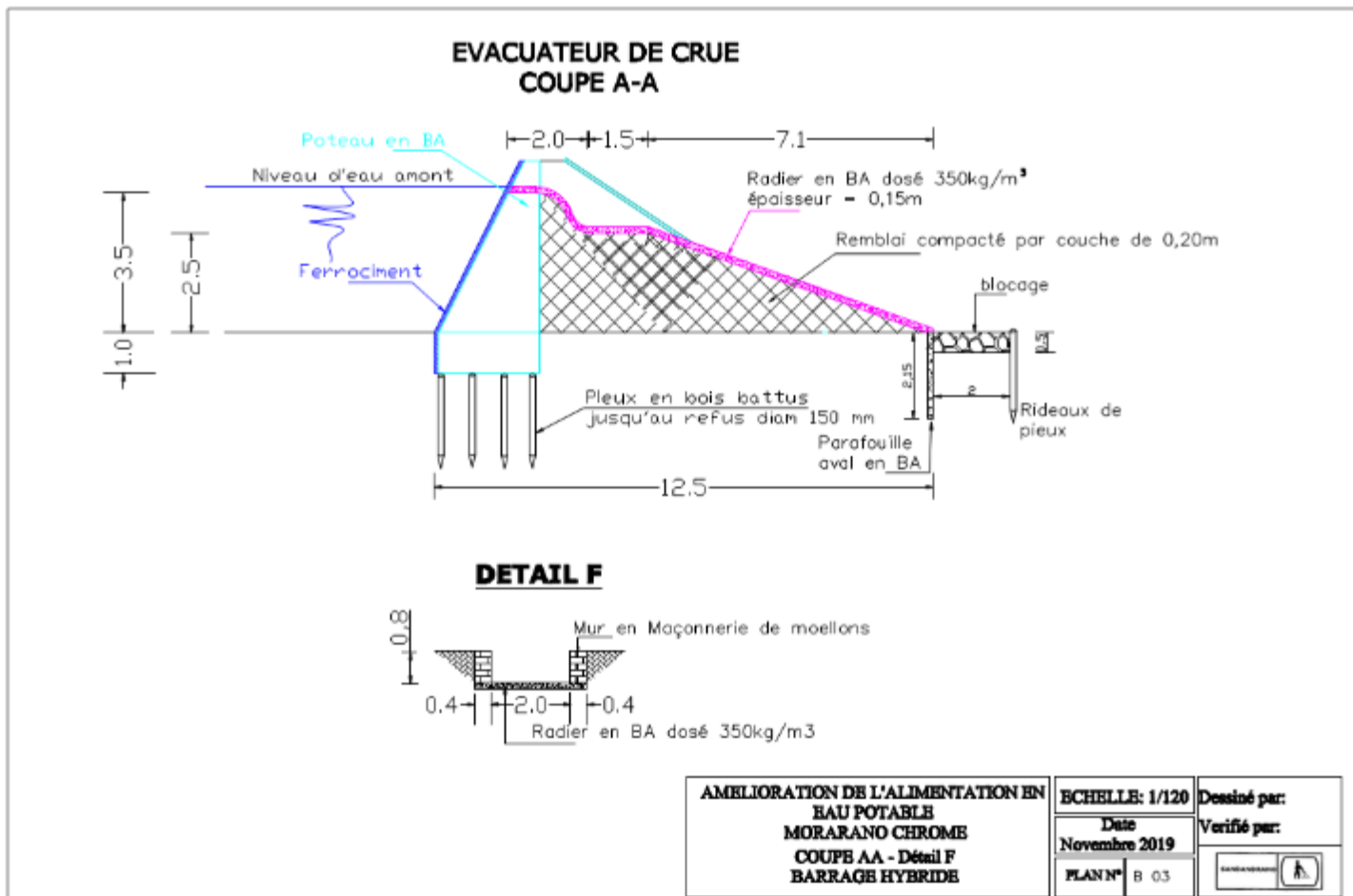


<b>AMELIORATION DE L'ALIMENTATION EN                  EAU POTABLE                  MORARANO CHROME                  VUE EN PLAN                  BARRAGE HYBRIDE</b>	<b>ECHELLE:</b> 1/300	<b>Dessiné par:</b>
	Date Novembre 2019	<b>Vérifié par:</b>
	<b>PLAN N°</b> E 01	

## ANNEXE II : COUPE B – B DU BARRAGE HYBRIDE MARENINA





### ANNEXE III : COUPE A – A DU BARRAGE HYBRIDE MARENINA





## ANNEXE IV : BASSIN VERSANT DE MARENINA








Nom de l'ouvrage		BARRAGE MORARANO CHROME		<b>FICHE D'INSPECTION VISUELLE DU BARRAGE</b>  <b>(Surveillance régulière de l'ouvrage)</b>		
Date d'inspection		09 / 07 / 2022 (jj / mm / aa)				
Heure d'inspection		14 h 00 mn				
Nom des inspecteurs		RAKOTONIRAINY Fanilo	ANDRIAMIRIJA Fenosoa	Hauteur du barrage		4,30 [m]
		RAZAFITSIATOSIKA Fetra		Hauteur de retenue (Evacuateur de crue)		3,50 [m]
Météo lors de la visite		<input checked="" type="checkbox"/> Beau temps / <input type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie		Côte du plan d'eau par rapport à la base du barrage		[m]
Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner
<i>Parement aval</i>	- Venues d'eau au travers du barrage  - Détection de présence d'amorces de glissement, d'animaux fouisseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Ouvrage en cours de réhabilitation		Remblai à compacter
		Présence de fuite	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Creusement de ravines	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence d'effondrement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	En cours de finition			
<i>Pied du parement aval</i>	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Ouvrage en cours de réhabilitation		RAS
		Présence d'humidité	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
<i>Appuis RG / RD</i>		Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS

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	- Venues d'eau en provenance de la retenue	Présence d'humidité	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Ouvrage en cours de réhabilitation		
		Présence de fuite	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
<i>Vidange de fond</i>	- Fissure - Etat des vannes	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			Finition de la vidange de fond
		Etat général	Bon	En cours de finition		
<i>Evacuateur de crue</i>	- Fissure - Erosions des radiers - Etat des bétons - Tassement	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	L'ouvrage est en cours de réhabilitation et de finition		Finition de l'évacuateur de crue
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de tassement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat du seuil	En cours de finition			
		Etat du coursier	En cours de finition			
		Etat général	En cours de finition			
<i>Crête de barrage</i>	- Tassement différentiel - Affaissement	Apparition de fissure	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	En cours de finition		Rajout de remblai et bien compacté
		Tassement de la crête	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de point bas	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
<i>Parement amont</i>	- Défauts de forme majeur (cloques, boursouflures, déchirement) de l'étanchéité amont	Liaison terre-ferrociment	Bon	La voile en ferrociment est en cours de finition		Finition du parement amont
		Présence de fissure	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Armatures apparentes	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			

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		Etat général				
<i>Prise d'eau</i>	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	La prise d'eau est en bon état		RAS
		Envasement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Etat général	Bon			
<i>Bassin versant</i>	- Formation de ravines Erosion	Présence d'érosion	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			Le site nécessite une campagne de reboisement
		Présence de fontis	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
<i>Panneaux de sécurité</i>		Existence	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			

## ANNEX 31.8 SITE D'ANDONABE


Date de visite : 10 Aout 2022

Nom de l'ouvrage		Retenu colinéaire, barrage hybride Antohabe		<b>FICHE D'INSPECTION VISUELLE DU BARRAGE</b> <b>(Surveillance régulière de l'ouvrage)</b>			
Date d'inspection		10/ 08 / 2022 (jj / mm / aa)					
Heure d'inspection		10 h00 mn					
Nom des inspecteurs		RALISON Vahela	Technicien en Infra	Hauteur du barrage		4	[m]
				Hauteur de retenue (Evacuateur de crue)		3,15	[m]
Météo lors de la visite		<input type="checkbox"/> Beau temps / <input checked="" type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie		Côte du plan d'eau par rapport à la base du barrage		1	[m]
Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner	
Parement aval	- Venues d'eau au travers du barrage  - Détection de présence d'amorces de glissement, d'animaux fousseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Parement aval en bon état		Besoin d'entretien périodique : <ul style="list-style-type: none"> <li>• Recharge de remblai,</li> <li>• Engazonnement,</li> <li>• Amélioration de la PPI</li> </ul>	
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Creusement de ravines	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence d'effondrement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				
		Etat de la végétation	Bon état				
Pied du parement aval	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Pied du parement		RAS	
		Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non				

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		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	aval en bon état		
Appuis RG / RD	- Venues d'eau en provenance de la retenue	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Appuis RG RD en bon état		RAS
		Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	RD revêtu		
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
Vidange de fond	- Fissure - Etat des vannes	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La vanne est fermée lors du visite		RAS
		Etat général	Bon état			
Evacuateur de crue	- Fissure - Erosions des radiers - Etat des bétons - Tassement	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Evacuateur de crue en bon état		RAS
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de tassement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat du seuil	Bon état			

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		Etat du coursier	Bon état			
		Etat général	Bon état			
Crête de barrage	- Tassement différentiel - Affaissement	Apparition de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Crête du barrage en bon état		RAS
		Tassement de la crête	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de point bas	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
Parement amont	- Défauts de forme majeur (cloques, boursoufflures, déchirement) de l'étanchéité amont	Liaison terre-ferrociment	Bon	Parement amont en bon état		Recharge périodique de remblai Emballissement
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Armatures apparentes	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon état			
Prise d'eau	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	Prise d'eau en bon état		RAS
		Envasement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon état			

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<i>Bassin versant</i>	- Formation de ravines Erosion	Présence d'érosion	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			Amélioration de la PPR
		Présence de fontis	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
<i>Panneaux de sécurité</i>		Existence	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS

## **ANNEX 34. HYBRID DAM O&M GUIDE (FR)**





**USAID**  
DU PEUPLE AMÉRICAIN



**MANUEL D'OPÉRATION  
& DE MAINTENANCE  
BARRAGE HYBRIDE**

An aerial photograph showing a large, dark, curved reservoir or dam structure. The reservoir is surrounded by dense, lush green tropical forest. In the foreground, there are several rectangular plots of land, possibly agricultural fields, with a mix of green and brown soil. The overall scene is a rural, natural setting.

Version 1.0  
Septembre 2022

## **À propos de RANO WASH**

Le Projet Rural Opportunities in Water, Sanitation and Hygiene (RANO WASH) est une Activité de six ans financée par l'Agence américaine pour le développement international dans le cadre de l'accord AID-687-A-17-00002 (2017-2023) RANO WASH est mis en œuvre par Cooperative for Assistance and Relief Everywhere Inc (CARE), en consortium avec Catholic Relief Services (CRS), WaterAid, BushProof et Sandandrano.

Ce document a été rendu possible grâce au soutien du peuple américain par l'intermédiaire de l'Agence des États-Unis pour le développement international (USAID) dans le cadre de l'accord de coopération AID-687-A-17-00002 (RANO WASH) géré par Cooperative for Assistance and Relief Everywhere Inc (CARE). Le contenu de ce rapport relève de la seule responsabilité de CARE et ne reflète pas nécessairement les opinions de l'USAID ou du gouvernement des États-Unis.

## **Préambule**

Le présent manuel d'opération et maintenance est un guide pour les interventions standards relatives à l'entretien des ouvrages de captage type « barrages hybrides » conçus par SANDANDRANO. Il récapitule les entretiens préventifs, les opérations de contrôle et de surveillance ainsi que les réparations et les remises en état nécessaires pour le bon fonctionnement et la sécurité de l'ouvrage et ses organes connexes. Ce manuel servira d'outils de référence pour les agents d'exploitation d'un système d'AEP ainsi que les contrôleurs techniques du gestionnaire.

## I INTRODUCTION

### OBJET

Le barrage hybride est un ouvrage d'art hydraulique qui est une nouvelle technologie de barrage de retenue, inventée par SANDANDRANO, combinant à la fois la stabilité d'une digue en terre traditionnelle (partie aval) et l'étanchéité du ferrociment (partie mouillée). Il est construit suivant les mêmes concepts que les autres barrages avec les organes et ouvrages connexes retrouvés habituellement dans les barrages de retenue.

Le présent manuel d'entretien rassemble le concept de barrage « hybride », son exploitation et son entretien. Il fournit les recommandations nécessaires pour permettre à l'exploitant d'en tirer le maximum d'avantages et d'assurer la sécurité et la pérennité de l'infrastructure.

Prévu pour s'adapter aux impacts du changement climatique, les entretiens et suivis du barrage hybride diffèrent en envergure et en fréquence selon la période de l'année (saison pluvieuse et saison d'étiage).

### AUDIENCE

Le présent manuel est destiné à toute personne, physique ou morale, garante du bon fonctionnement, du suivi et de la sécurité de l'ouvrage : le Maître d'ouvrage, la Direction Régionale en charge de l'Eau, la Communauté et particulièrement le Gestionnaire délégué du système d'eau.

## 2. DESCRIPTION DU SYSTÈME

### RAPPEL SUR LE CONCEPT DE « BARRAGE HYBRIDE SANDANDRANO »



Rapid **A**pproach to **N**ew **O**pportunities with **G**asy **S**ystem

*(Approche Rapide aux Nouvelles Opportunités avec le Système  
Gasy) Concept ancré autour du **Barrage Hybride  
SANDANDRANO***



Figure 1. Barrage hybride de 160ml de long, 4ml de haut avec 43 000 m3 de capacité utile étalée sur 2,3 ha

## CONCEPT « RANO GASY »

Selon la Charte de l'Environnement actualisé malagasy, le caractère évolutif de l'Environnement fait apparaître de nouveaux enjeux, de nouveaux défis et de nouvelles tendances aussi bien sur le plan national qu'international. En effet, *le Secteur Privé joue un rôle important dans la mise en œuvre de la politique environnementale et son implication totale est ainsi incontournable pour atteindre les objectifs fixés.*

Le concept RANO GASY ou **Rapid Approach to New Opportunities with Gasy System** ou encore **Approche Rapide aux Nouvelles Opportunités avec le Système Gasy** est une **Initiative privée pour booster le Monde Rural vers un développement rapide et durable à partir de la maîtrise de l'Eau**. Il tient compte des Objectifs de Développement Durable (ODD), de la Politique Générale de l'Etat (PGE), des Orientations stratégiques multisectorielles (Alimentation en Eau Potable, Santé, Agriculture et Environnement), spécifiquement du Contrat de performance dans le secteur de l'Eau et de l'Assainissement et aussi et surtout de la Gestion Intégrée des Ressources en Eau.

Pour relever les défis face à la pauvreté , le concept RANO GASY se fait pour but de transformer le **Capital naturel de Madagascar** en **Outils de développement durable tant économique que social et environnemental** .

Ce concept est ancré autour de la construction d'un « **barrage hybride** » terre/ferrociment.

Il tient compte :

- De l'implication du secteur privé dans le développement de Madagascar en général et dans le développement du secteur de l'Eau en particulier ;
- du changement climatique avec **construction systématique d'un barrage de retenue d'eau hybride** comme mesure d'adaptation adéquate (maîtriser et gérer l'eau avant ,durant et après la saison des pluies) ;
- de la Gestion Intégrée des Ressources en Eau (GIRE) développée autour de ce barrage hybride à multiples usages (Alimentation en Eau Potable, Agriculture, Pisciculture...);
- de la gestion des risques et des catastrophes avec l'implantation de déversoir /évacuateur de crue dimensionné pour une crue centennale ;
- de la gestion intégrée des zones humides ;
- de la gestion du Tourisme Durable avec le reboisement des périmètres de protection (immédiate, rapprochée ou voire éloignée) avec des arbres autochtones malagasy abritant les oiseaux et les animaux sauvages endémiques en voie de disparition ;
- de la gestion durable des ressources naturelles renouvelables (Sol, Eau ,Forêt) et non renouvelables dont l'utilisation n'est pas gratuite avec la multiplication des nouvelles « sources d'eau » face au tarissement actuel des rivières ;
- du partage équitable des avantages tirés des services environnementaux à travers ,entre autres, de l'utilisation des revenus dérivés des marchés « carbone » ou/et de la lutte contre l'érosion du sol, et la gestion des bassins versants ;
- de la lutte contre la désertification et la dégradation des terres ;
- de la reforestation de Madagascar avec des arbres endémiques malagasy .



Figure 2. Reboisement avec du Volomborona, du Sisal et de Makaranana dans un bassin versant d'expérimentation d'Ambohijanaka. Atsimondrano (à gauche : Volomborona son nom scientifique mondial, centre : premier plan le sisal, deuxième plan le Makaranana, à droite : à gauche le sisal et à droite le Makaranana

NOTA : Ces variétés apportent des valeurs ajoutées. Le sisal et le Makaranana sont des variétés qui poussent partout quels que soient le climat et la nature pédologique du sol. Le Volomborona utilisé par nos ancêtres pour l'ombrage du café fertilise son environnement.

### VISION DU CONCEPT RANO GASY

Sachant que « **Tout citoyen doit avoir un réflexe environnemental** » selon la Charte de l'environnement Malagasy, le concept RANO GASY a pour vision de faire le barrage hybride comme « **point d'émergence** » du monde rural en fournissant de l'Eau du fait que **l'Eau c'est la vie et elle est vitale.**

RANO GASY a pour ambition de changer le paradoxe « **population pauvre autour d'une richesse naturelle** » en leitmotiv « **population épanouie sachant préserver son environnement et optimisant son milieu naturel** ».



**Figure 3. Identification du site d'implantation du barrage Avant construction**



**Figure 4. Barrage réalisé en moins de 3 mois – après construction**

### **IMPACTS DU CONCEPT RANO GASY**

Étant donné qu'un barrage hybride est réalisable dans un temps record (suivant le site, par exemple, de l'ordre de 3 mois pour un barrage de 160m de long et 4m de hauteur soit un volume utile de 45 000 m<sup>3</sup>), la **mise à l'échelle du concept RANO GASY** aura des impacts rapides sur :

- l'amélioration de l'accès à l'Eau Potable c'est-à-dire de la santé humaine ;
- l'amélioration de la productivité agricole et piscicole c'est-à-dire du volet nutritionnel;
- l'application effective de l'objet du Code de l'Eau sur « **la gestion, la conservation, et la mise en valeur des ressources en eau** » ;
- la préservation effective de l'environnement et la matérialisation des repères pour la politique de reforestation ;
- le transfert de technologie en réalisant des chantiers école dans différentes régions.



Figure 5. Avant et après 3 mois de réalisation du barrage hybride à Foulpointe



Figure 6. Barrage hybride pour l'AEP par pompage jusqu'à l'horizon 2038 à Ambila lemaitso

### DÉFIS, RÉPLICABILITÉ ET ADAPTABILITÉ

Les grands défis sont globalement la lutte contre la pauvreté, la création d'une économie circulaire, l'engagement effectif des opérateurs privés pour l'atteinte des Objectifs du Développement Durable et spécifiquement de l'ODD 6 de **Garantir l'accès de tous à l'eau et à l'assainissement et assurer une gestion durable des ressources en eau.**



Comme il s'agit d'un projet intégré multisectoriel (eau, assainissement, agriculture, tourisme, environnement, santé) impliquant les privés, le concept peut être dupliqué et adapté à l'échelle nationale voire internationale.

Par ailleurs, le concept crée une richesse de proximité, entraînant une « chaîne de valeur » pouvant « casser » et supprimer les différents intermédiaires et intervenants.

## **SPÉCIFICITÉ D'UN BARRAGE HYBRIDE**

### *5.1 Création d'une retenue de stockage*

#### **a) Site**

Le barrage ou digue de retenue sera placé de manière à couper le cours d'un ruisseau au droit d'un étranglement ou d'un verrou naturel ou d'un site idéal pour un barrage ou encore au droit de l'exutoire du bassin versant concerné. La retenue peut être collinaire pour une adduction gravitaire ou non par un transfert par pompage.

#### **b) Caractéristiques**

Ce barrage sera dimensionné pour atteindre les objectifs de production en eau brute à l'horizon fixé grâce à la rehausse du plan d'eau à la hauteur souhaitée (environ 3 à 5m) par rapport au niveau du seuil de fondation de l'ouvrage. La longueur de l'ouvrage dépend de la retenue projetée et du site d'implantation pouvant aller à 200 m ou plus. Dans ces conditions, le pourcentage du volume stocké est reparti comme suit : volume nécessaire de réserve de 70% pour les besoins en eau du projet et 30% pour l'évaporation.

Le lac artificiel ainsi créé fera office de stockage et de pré-décantation. Le projet tend, dans l'ensemble, à conserver le maximum de volume de stockage ce qui va dans le sens de la sécurité.

L'ouvrage sera de forme trapézoïdale ayant comme revanche=0,5m et équipé d'un évacuateur de crue dimensionné avec un débit de crue bi-décennale.

L'eau du déversoir d'orage sera utilisée pour d'autres usages aval (agriculture, pisciculture,).

Le transfert eau brute pourra irriguer par aspersion ou par goutte à goutte les zones se trouvant sur son tracé suivant la disponibilité de l'eau.

Il n'est sans doute pas inutile de rappeler que, hormis l'économie en volume de stockage, la retenue agira dans le système de traitement d'eau comme un décanteur classique, mais de dimensions assez importantes. Il s'agit ainsi d'une eau décantée par la suite filtrée si l'eau est chargée et qui sera transférée vers le site de traitement au niveau du réservoir de stockage.

Nous estimons que cette mesure d'adaptation à mettre en place est la solution durable pour la Gestion Intégrée des Ressources en Eau de la zone.

*NOTA : Un impluvium construit avec le même principe que le barrage hybride pourra être proposée pour la résolution des problèmes d'eau dans le Sud de Madagascar.*



Figure 7. Évacuateur de crue en ferrociment

## Méthodes constructives

Le barrage devra présenter toute garantie de stabilité et d'étanchéité. Compte tenu de l'emplacement de l'ouvrage et eu égard à la disponibilité de matériau sur site (remblai), la construction d'un barrage hybride est préconisée c'est-à-dire une façade en amont en ferrociment pour garantir l'étanchéité, et une façade en aval en terre pour assurer la stabilité. Cette technologie est déjà développée à Madagascar depuis plus de 15 ans par Sandandrano (Cf modèle de barrage hybride en cours de construction en annexe). L'engazonnement de la partie en terre constitue la méthode de protection la plus efficace pour constituer le « revêtement » des remblais compactés provenant des déblais aux alentours immédiats du site de retenue.

Le barrage sera équipé d'une chambrette de prise, d'un dispositif de vidange et d'un déversoir de crue similaire à la photo ci-dessus.

### - *Chambrette de prise*

La chambrette de prise, construite en amont du barrage et encastrée sur son corps amont en ferrociment sera équipée d'une prise basse et d'une prise haute permettant d'optimiser l'exploitation.

La prise inférieure sera équipée de grilles, d'une crépine avec toile filtrante de type cyntropur encadrée permettant de filtrer et d'arrêter les micro suspensions en tête du départ de l'adduction. Elle sera munie de tous les équipements annexe (vidange, vannes, trop plein etc.) permettant le captage en basses eaux. Cette prise sera mise hors service pendant les mois les plus pluvieux voire pendant la saison des pluies pendant.

Cette chambrette de prise sera reliée à la chambre de mise en charge par l'intermédiaire d'une conduite en PVC ou en Galva DN100. La tête de cette conduite filetée pourra être équipée d'un bouchon à vis démontable permettant de mettre hors service l'adduction pendant l'entretien de la retenue du barrage ou le remplacement éventuel de la toile filtrante.

La nature de la conduite sera fonction de l'agressivité du milieu et elle sera protégée si nécessaire soit avec un enduit bitumineux, soit avec de la peinture anticorrosive, soit avec un fourreau en ferrociment.

- *Dispositif de vidange*

Le dispositif nécessaire pour la vidange et pour le curage éventuel de la retenue sera prévu, la vanne ou la plaque pleine verrouillée est placée dans un regard protégé pour que la pièce ne puisse pas être intempestivement manœuvrée par des inconnus.

- *Déversoir*

Le déversoir latéral construit en crête du barrage fonctionnera en trop plein et évacuateur de crue. Il sera aménagé conformément au plan joint et comportera un seuil de mesure des débits d'étiage.

Pour éviter le problème d'affouillement à la chute au pied aval du barrage, un bassin de dissipation tapissé d'enrochements ou similaire sera prévu sur environ 2ml en aval du barrage.



**Figure 8. Économie en bois de coffrage lors de la mise en œuvre d'un barrage de hauteur moyenne de 4 ml (préservation de l'environnement)**

### 3. OPÉRATION ET MAINTENANCE DES BARRAGES HYBRIDES

	DESIGNATI	DESIGNATI	DESIGNATI	DESIGNATION	OPERATION	MAINTENANCE	INTERVENANTS	OUTILS
BASSIN VERSANT	Surveillance des activités dans le périmètre de protection rapproché	Reboisement périodique pour améliorer la couverture végétale du bassin versant	Commune (STEAH, communauté) Gestionnaire DREAH	Délimitation et affichage/panneau indiquant la zone protégée	Aucune activité de construction, de déboisement, d'utilisation d'engrais chimique, de pâturage  Pas de présence d'érosion, de terrain dénudé	Surveillance continue Reboisement annuel	La protection du bassin versant assure à la fois la disponibilité permanente des ressources en eau et la qualité de l'eau brute stockée	
CORPS DU BARRAGE	Vérification systématique de la stabilité de l'ouvrage et du périmètre de protection immédiat de l'ouvrage	Inspection et réparation des éventuelles fuites, glissements, phénomène de renard, affaissement Inspection de la présence d'envasement au fond du barrage	Gestionnaire - Agents d'exploitation	Équipements et outillage de maçonnerie	Le profil du barrage est stationnaire  Pas de présence de fuites, glissements, phénomène de renard, affaissement Le fond du barrage ne présente pas d'envasement conséquent	Hebdomadaire Journalier en période pluvieuse		
ANCRAGES RIVE GAUCHE ET RIVE DROITE	Vérification systématique de la stabilité des berges	Inspection et réparation des éventuelles fuites, infiltrations	Gestionnaire - Agents d'exploitation	Équipements et outillage de maçonnerie	Les ancrages sont stables et ne présentent aucune	Hebdomadaire Journalier en période pluvieuse		

	DESIGNATI	DESIGNATI	DESIGNATI	DESIGNATION	OPERATION	MAINTENANCE	INTERVENANTS	OUTILS
		sauvages, phénomène de renard			infiltration ni affouillement			
VOILE EN FERROCIMENT	Vérification systématique de l'étanchéité	Inspection et réparation des éventuelles fuites, bombement et fissurations	Gestionnaire - Agents d'exploitation	Équipements et outillage de maçonnerie	La partie en ferrociment est étanche et ne présente aucune fissure	Hebdomadaire Journalier en période pluvieuse		
DIGUE EN TERRE	Vérification systématique du profil de la digue et de son compactage	Inspection et réparation des éventuelles tassements, glissements, affaissements, fuites, infiltrations sauvages Reprofilage continu de la digue surtout pendant la première année d'exploitation, avant et après les périodes de pluies Entretien continu de l'engazonnement de la partie en terre	Gestionnaire - Agents d'exploitation	Équipements et outillage de maçonnerie	Le profil de la digue en terre n'est pas modifié au fil du temps  La crête du barrage est stable et ne présente pas de tassements différentiels  Le pied du barrage ne présente pas d'infiltrations importantes ni d'affouillements L'engazonnement de la partie en terre est uniforme et continu	Hebdomadaire Journalier en période pluvieuse		
OUVRAGE DE PRISE	Vérification systématique du	Curage de la chambrette de prise à la demande selon la	Gestionnaire - Agents d'exploitation	Équipements et outillage de plomberie	Le débit sortant de la prise est constant et régulé par	Hebdomadaire Journalier en période pluvieuse		

	DESIGNATI	DESIGNATI	DESIGNATI	DESIGNATION	OPERATION	MAINTENANCE	INTERVENANTS	OUTILS
	fonctionnement de la prise	qualité de l'eau captée Remplacement périodique des crépines surtout après la période de pluies			rapport aux besoins en aval  Il ne présente pas d'envasement ni de corps étrangers bouchant la conduite de prise			
DÉVERSOIR DE CRUE	Vérification systématique du fonctionnement de l'évacuateur de crue	fissurations, affouillements, érosion au niveau du déversoir, du radier et des enrochements Renforcement périodique des enrochements et des parafouilles surtout avant la période de pluies	Gestionnaire - Agents d'exploitation	Équipements et outillage de maçonnerie	Le déversoir fonctionne correctement et arrive à évacuer convenablement les crues en période pluvieuse	Hebdomadaire Journalier en période pluvieuse		
ORGANE DE VIDANGE, BONDE DE FOND, VANNE DE CHASSE	Vérification systématique du bon fonctionnement des vannes de vidange et vannes de chasse	Inspection, réparation et/ou remplacement des équipements défectueux	Gestionnaire - Agents d'exploitation	Équipements et outillage de plomberie	Les organes de vidange fonctionnent convenablement Aucune fuite n'est observée à la sortie des vannes	Hebdomadaire Journalier en période pluvieuse	Les vannes de chasses peuvent faire office de vidange et d'évacuateur de crue en fonction des besoins surtout en période de crues et de cyclones	

	DESIGNATI	DESIGNATI	DESIGNATI	DESIGNATION	OPERATION	MAINTENANCE	INTERVENANTS	OUTILS
ÉQUIPEMENTS HYDRAULIQUES	Vérification systématique du fonctionnement des équipements	Inspection, réparation et/ou remplacement des équipements défectueux	Gestionnaire - Agents d'exploitation	Équipements et outillage de plomberie Débitmètre	Les équipements hydrauliques (raccords, vannes, crépines, etc.) fonctionnent correctement, ne sont pas bouchés et ne présentent aucun signe de fuite ou de	Hebdomadaire Journalier en période pluvieuse		
RETENUE D'EAU	Suivi du niveau d'eau dans le barrage à partir du limnimètre		Gestionnaire - Agents d'exploitation	Limnimètre	Le niveau d'eau dans le barrage évolue normalement en période de crue et d'étiage	Surveillance continue	Si le niveau d'eau diminue anormalement, cela indiquerait une éventuelle fuite ou infiltration	

## ANNEXE I. FICHE DE SUIVI BARRAGE HYBRIDE

<b>Nom de l'ouvrage</b>		<b>FICHE D'INSPECTION VISUELLE DE BARRAGE</b>		
<b>Date d'inspection</b>	..... / ..... / 20..... (jj / mm / aa)	<b>(Surveillance régulière de l'ouvrage)</b>		
<b>Heure d'inspection</b>	..... h ..... mn			
<b>Nom des inspecteurs</b>		<b>Hauteur du barrage</b>		[m]
		<b>Hauteur de retenue (Evacuateur de crue)</b>		[m]
<b>Météo lors de la visite</b>	<input type="checkbox"/> Beau temps / <input type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie	<b>Côte du plan d'eau par rapport à la base du barrage</b>		[m]

Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner
<i>Parement aval</i>	- Venues d'eau au travers du barrage - Détection de présence d'amorces de glissement, d'animaux fouisseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Creusement de ravines	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fissure	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence d'effondrement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Etat de la végétation				
<i>Pied du parement aval</i>	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence d'humidité	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			



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Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner
		Présence de fuite	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
<i>Appuis RG / RD</i>	- Venues d'eau en provenance de la retenue	Présence de végétation arbustive	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence d'humidité	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
<i>Vidange de fond</i>	- Fissure - Etat des vannes	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Etat général				
<i>Evacuateur de crue</i>	- Fissure - Erosions des radiers - Etat des bétons - Tassement	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fissure	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de tassement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Etat du seuil				
		Etat du coursier				
		Etat général				
<i>Crête de barrage</i>	- Tassement différentiel - Affaissement	Apparition de fissure	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Tassement de la crête	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de point bas	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			

Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner
<i>Parement amont</i>	- Défauts de forme majeur (cloques, boursoflures, déchirement) de l'étanchéité amont	Liaison terre-ferrociment				
		Présence de fissure	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Armatures apparentes	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Etat général				
<i>Prise d'eau</i>	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Envasement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Etat général				
<i>Bassin versant</i>	- Formation de ravines Erosion	Présence d'érosion	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fontis	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Etat de la végétation				
<i>Panneaux de sécurité</i>		Existence	<input type="checkbox"/> Oui / <input type="checkbox"/> Non			

## ANNEXE 2 : EXEMPLE DE SUIVI DE BARRAGE HYBRIDE : SITE ECOLE DE FOULEPOINTE

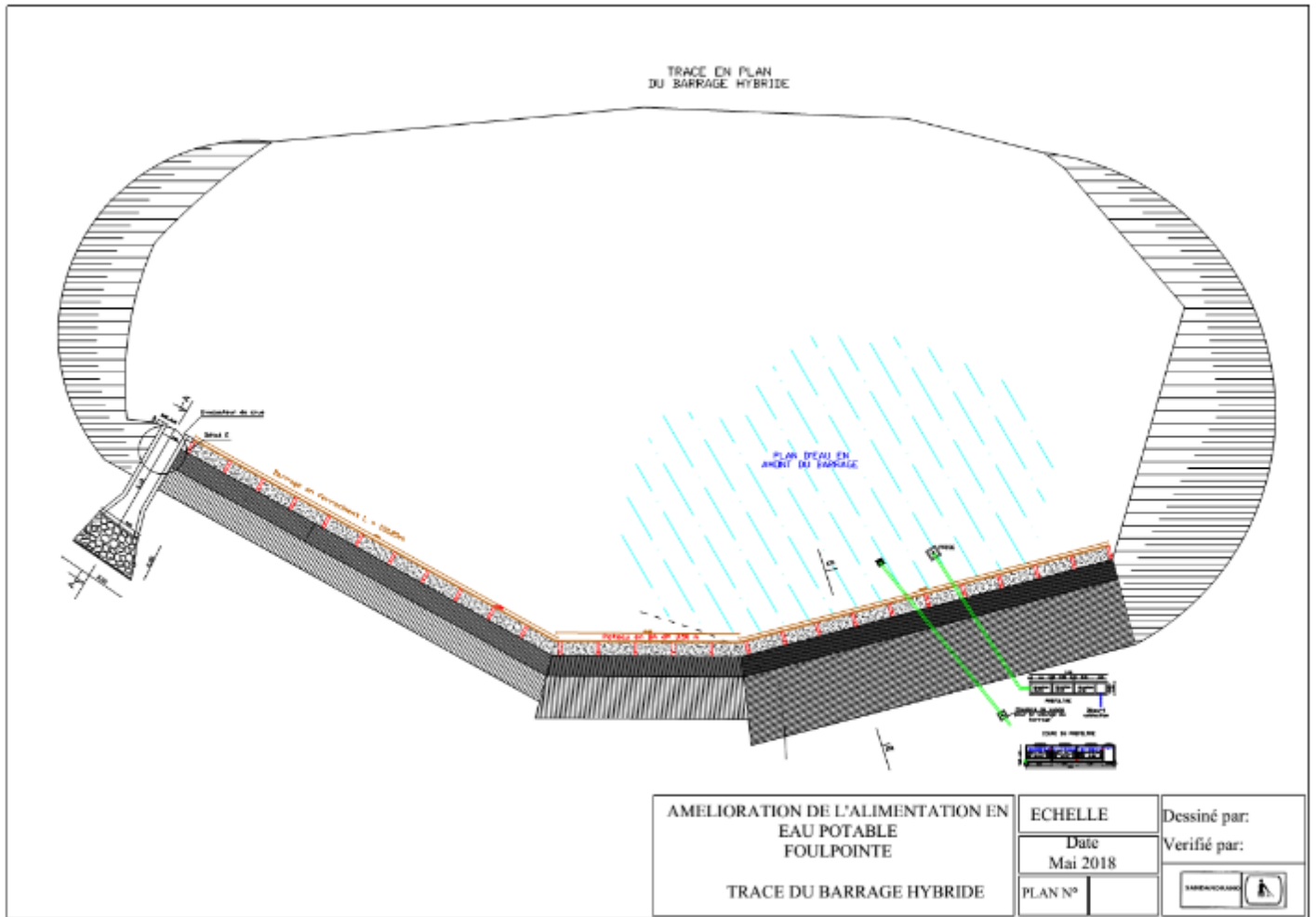
Date de visite : 07 Juillet 2022

<b>FICHE TECHNIQUE DU BARRAGE DE FOULEPOINTE</b>			
<i>Localisation du barrage</i>			
<b>Région</b>	ATSINANANA	<b>Localité</b>	Ranomainty
<b>District</b>	Toamasina II	<b>Coordonnées GPS de l'emplacement du barrage</b>	
<b>Commune</b>	Foulpointe	<b>Latitude</b>	<b>Longitude</b>
<b>Fokontany</b>	Foulpointe	17°42'14.33" S	49°28'39.47" E
<i>Informations sur le barrage</i>			
<b>Nom de la source / rivière / lac</b>	Ranomainty		
<b>Année de construction</b>	2019		
<b>Année de réhabilitation</b>	-		
<b>SITE HYDRIQUE</b>	<input type="checkbox"/> Au point d'émergence d'une source <input type="checkbox"/> Au travers d'un cours d'eau <input checked="" type="checkbox"/> A l'exutoire d'un lac <input type="checkbox"/> Au pourtour d'un lac <input type="checkbox"/> Autres à préciser :		
<b>Type de barrage</b>	<input checked="" type="checkbox"/> Barrage hybride <input type="checkbox"/> Barrage en béton armé <input type="checkbox"/> Barrage en béton cyclopéen		

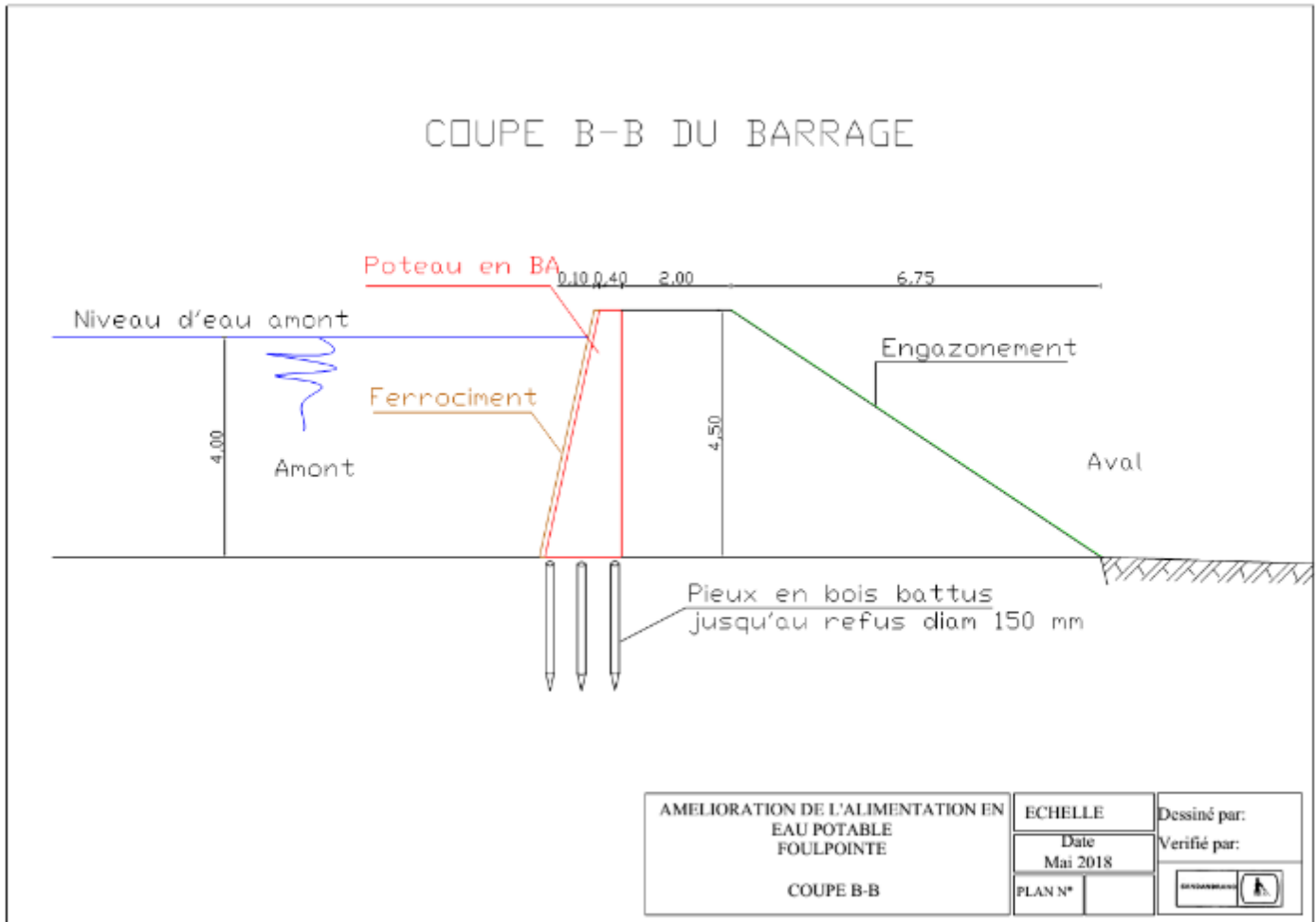
	<input type="checkbox"/> Barrage en maçonnerie <input type="checkbox"/> Autres à préciser :				
<b>Type de terrain de fondation</b>	<input checked="" type="checkbox"/> Alluvion <input type="checkbox"/> Argile <input type="checkbox"/> Roc <input type="checkbox"/> Nature inconnue <input type="checkbox"/> Autres à préciser :				
<b>Type d'usage</b>	<input checked="" type="checkbox"/> Alimentation en eau potable <input checked="" type="checkbox"/> Agriculture <input type="checkbox"/> Pisciculture <input type="checkbox"/> Autres à préciser :				
<b>Descriptions techniques du barrage</b>					
<b>Longueur de l'ouvrage</b>	160	[m]	<b>Largeur en crête</b>	2,00	[m]
<b>Hauteur du barrage</b>	4,00	[m]	<b>Largeur de la base</b>	8,75	[m]
<b>Hauteur de retenue</b>	3,50	[m]	<b>Superficie du plan d'eau</b>	2,30	[Ha]
<b>Fruit du parement amont</b>			<b>Capacité de la retenue</b>	43 000	[m <sup>3</sup> ]
<b>Fruit du parement aval</b>	2/3		<b>Superficie du BV alimentant le barrage</b>	14	[Ha]
<b>Evacuateur de crues</b>	Ouverture de 2,00 m				
<b>Ouvrage de vidange</b>			<b>Prise d'eau / captage</b>	PVC DN140	
<b>Gestionnaire</b>					
<b>Entreprise</b>	SANDANDRANO				

<b>Adresse siège</b>	Lot G3 bis Namehana, Antananarivo 103		
<b>Courriel siège</b>	<a href="mailto:Manjaka.Razafinjato@sandandrano.com">Manjaka.Razafinjato@sandandrano.com</a>		
<b>Téléphone responsable site</b>	034 77 537 88	<b>Nom responsable site</b>	Mme Faniry
<b>Téléphone Assistant manager</b>	034 09 437 70	<b>Nom responsable société</b>	RAZAFINJATO Manjaka
<b>Listes des annexes</b>			
1. Tracé du barrage hybride	2. Coupe B – B	3. Coupe A – A	4. Bassin versant de Foulpointe

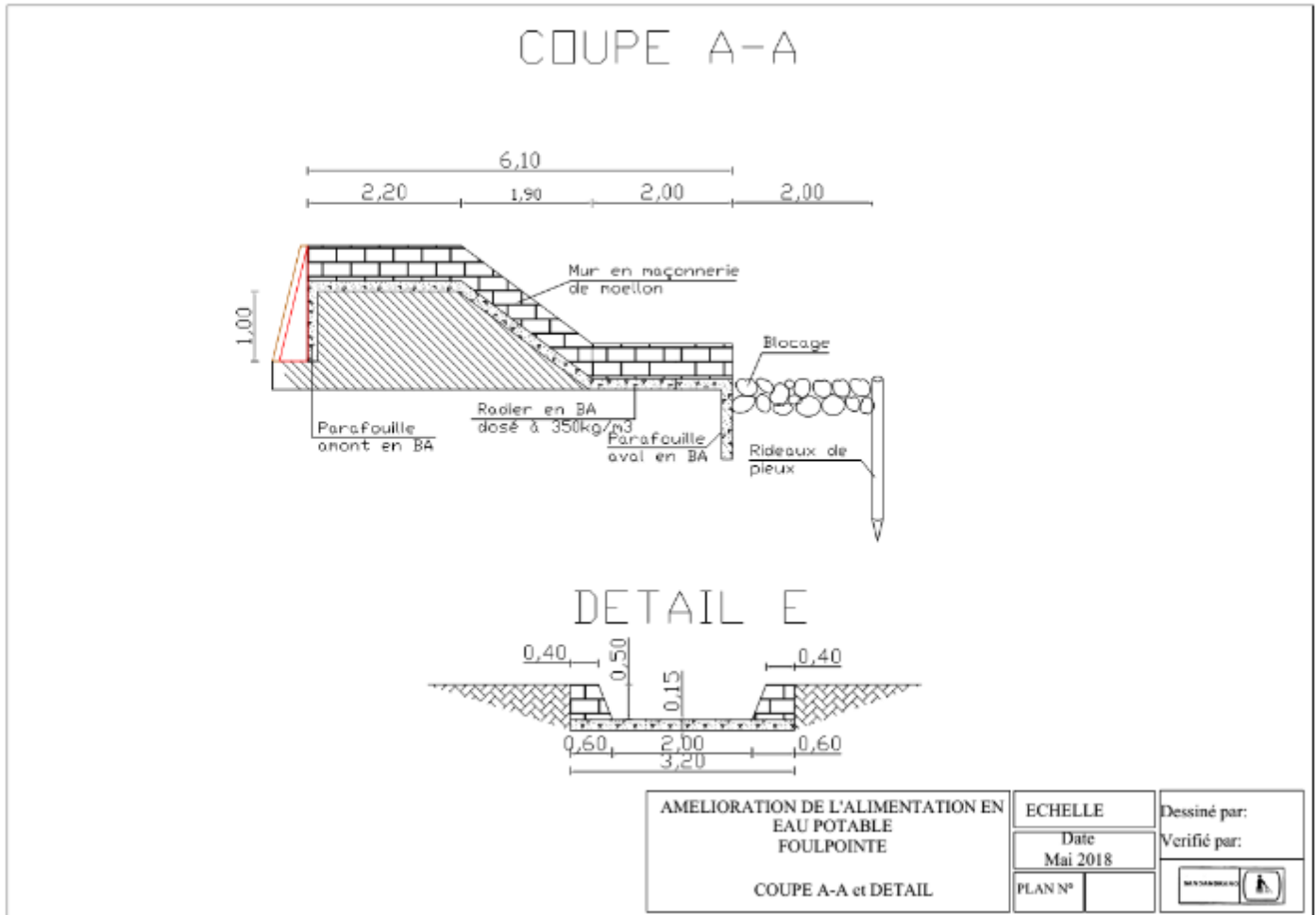
### TRACE DU BARRAGE HYBRIDE RANOMAINTY



**COUPE B – B DU BARRAGE HYBRIDE RANOMAINTY**

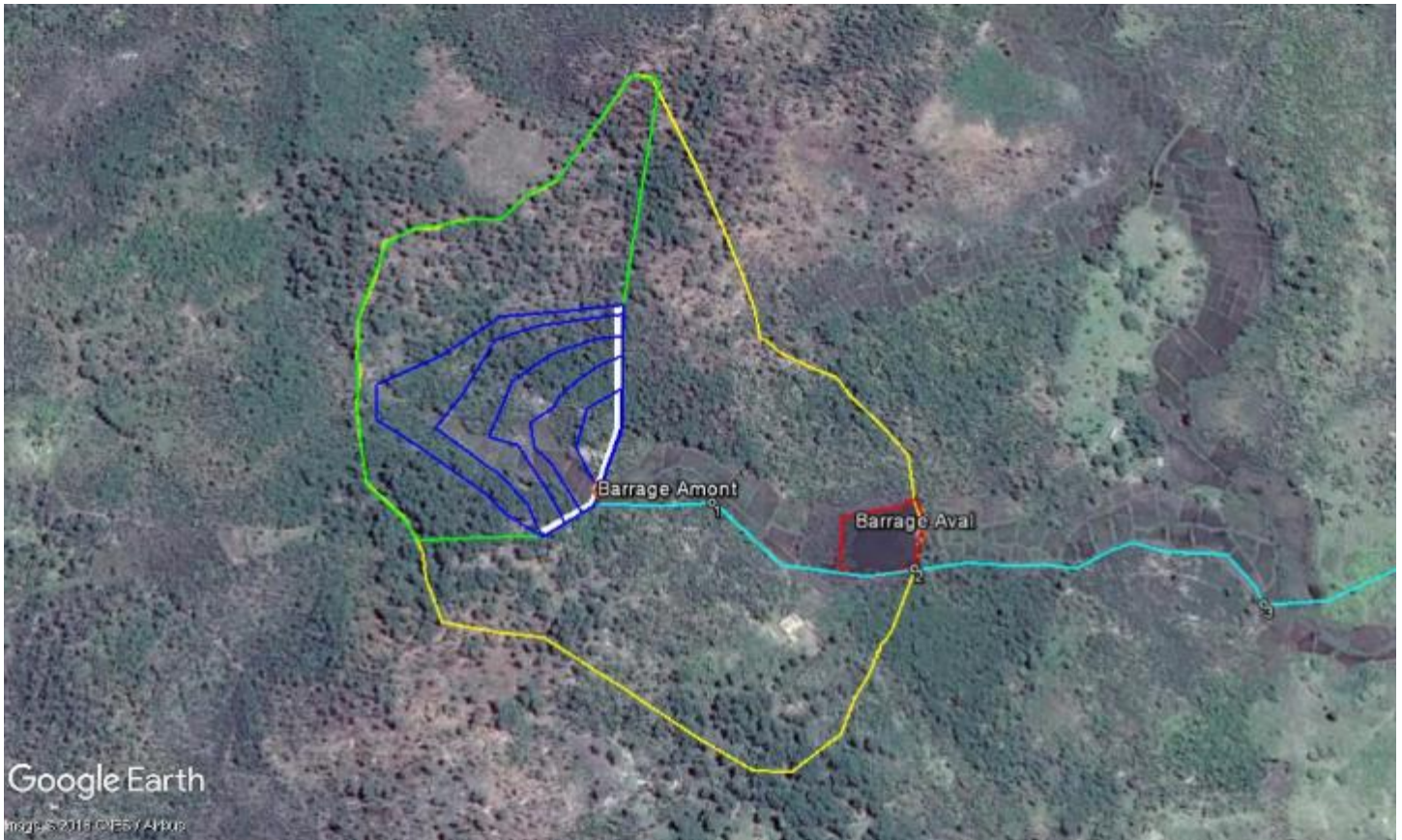







**COUPE A – A DU BARRAGE HYBRIDE RANOMAINTY**










## DELIMITATION BASSIN VERSANT DE RANOMAINTY







Plan d'Eau – 2,3ha	
BV Retenue amont 6ha	
BV Ranomainty 14ha	
Retenue aval : 0,3ha	
Transfert	

Nom de l'ouvrage		BARRAGE FOULEPOINTE		FICHE D'INSPECTION VISUELLE DU BARRAGE  (Surveillance régulière de l'ouvrage)		
Date d'inspection		07 / 07 / 2022 (jj / mm / aa)				
Heure d'inspection		10 h 00 mn				
Nom des inspecteurs		RAKOTONIRAINY Fanilo	ANDRIAMIRIJA Fenosoa	Hauteur du barrage		4,00 [m]
		RAZAFITSIATOSIKA Fetra		Hauteur de retenue (Evacuateur de crue)		3,50 [m]
Météo lors de la visite		<input type="checkbox"/> Beau temps / <input checked="" type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie		Côte du plan d'eau par rapport à la base du barrage		2,80 [m]
Description	Points à observer	Renseignements à noter		Conséquences / Commentaires	Photos	Suites à donner
<i>Parement aval</i>	- Venues d'eau au travers du barrage  - Détection de présence d'amorces de glissement, d'animaux fouisseurs, de bombement ou d'affaissement	Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Creusement de ravines	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence d'effondrement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
<i>Pied du parement aval</i>	- Venues d'eau au pied du barrage	Présence de végétation arbustive	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non	L'entreprise a installé une bonde de fond DN140 partiellement ouvert pour drainer l'eau		Vérifier périodiquement si des fuites ou suintement se présente au pied du barrage
		Présence d'humidité	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
<i>Appuis RG / RD</i>	- Venues d'eau en provenance de la retenue	Présence de végétation arbustive	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS
		Présence d'humidité	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			

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		Présence de fuite	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
Vidange de fond	- Fissure	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
	- Etat des vannes	Etat général	Bon			
Evacuateur de crue	- Fissure - Erosions des radiers - Etat des bétons - Tassement	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	L'évacuateur de crue est en bon état		RAS
		Présence de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de tassement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat du seuil	Bon			
		Etat du coursier	Bon			
		Etat général	Bon			
Crête de barrage	- Tassement différentiel - Affaissement	Apparition de fissure	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non	La crête du barrage présente un tassement conséquent qui nécessite d'être rechargé		L'ouvrage nécessite d'être rechargé de remblai pour compenser le tassement
		Tassement de la crête	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
		Présence de point bas	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			
Parement amont	- Défauts de forme majeur (cloques, boursouflures,	Liaison terre-ferrociment	Bon	La majorité des fissures est déjà traitée toutefois il		Traiter toutes les parties fissurées en période d'étiage afin
		Présence de fissure	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			

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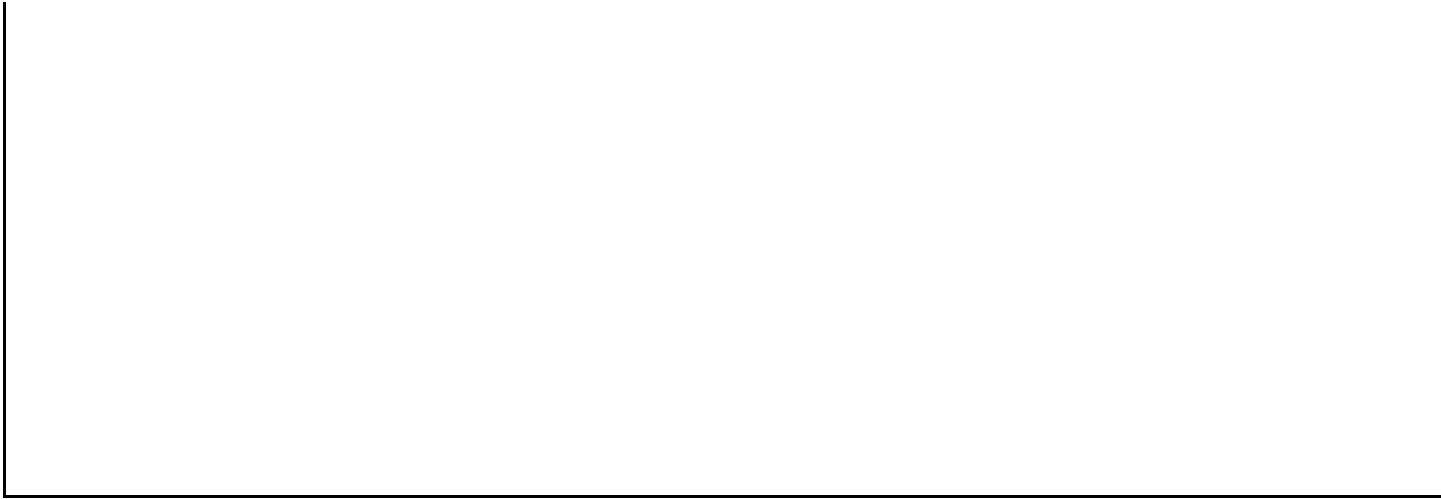
	déchirement) de l'étanchéité amont			reste encore quelques lignes		d'assurer l'étanchéisation du barrage par la voile en ferrociment
		Armatures apparentes	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
Prise d'eau	- Obstruction	Obstruction par corps flottants	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Envasement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat général	Bon			
Bassin versant	- Formation de ravines Erosion	Présence d'érosion	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			RAS
		Présence de fontis	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Présence de glissement	<input type="checkbox"/> Oui / <input checked="" type="checkbox"/> Non			
		Etat de la végétation	Bon			
Panneaux de sécurité		Existence	<input checked="" type="checkbox"/> Oui / <input type="checkbox"/> Non			RAS

## ANNEX 3. FICHE DE SUIVI SYSTEMATIQUE POST-CRUE

FICHE DE SUIVI SYSTEMATIQUE POST-CRUE				
(Examen visuel)				
<b>Nom de l'ouvrage</b>				<b>Observation générale :</b>
<b>Date d'inspection</b>	..... / ..... / 20..... (jj / mm / aa)			
<b>Heure d'inspection</b>	..... h ..... mn			
<b>Nom des inspecteurs</b>				
<b>Météo lors de la visite</b>	<input type="checkbox"/> Beau temps / <input type="checkbox"/> Faible averse / <input type="checkbox"/> Pluie modérée / <input type="checkbox"/> Forte pluie			
<b>Le phénomène pluvieux</b>	Date de début de la pluie	..... / ..... / 20..... à ..... h ..... mn		
	Date de fin de la pluie	..... / ..... / 20..... à ..... h ..... mn		
	Durée de la pluie	..... h ..... mn		
<b>Observation du niveau d'eau</b>	Hauteur du barrage			[m]
	Côte du plan d'eau par rapport à la crête du barrage			[m]
	Niveau d'eau au-dessus du seuil du déversoir			[cm]
<b>Observations après la crue</b>	Parement amont détérioré	<input type="checkbox"/> Oui / <input type="checkbox"/> Non		
	Mouvement de la structure	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Si oui, où	
	Dépôt de branche et de corps flottant	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Si oui, où	
	Traces sur les murs	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Si oui, où	

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	Surverse sur la crête	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Si oui, où	
	Présence d'affouillement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Si oui, où	
	Apparition de fuite	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Si oui, où	
	Augmentation de fuite préexistante	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Si oui, où	
	Formation de ravine	<input type="checkbox"/> Oui / <input type="checkbox"/> Non	Si oui, où	
	Ouverture de l'ouvrage de chasse avant la grande crue	<input type="checkbox"/> Oui / <input type="checkbox"/> Non		
	Envasement	<input type="checkbox"/> Oui / <input type="checkbox"/> Non		
	Etat de la végétation			
<b>Remarques (Surtout les dysfonctionnements) :</b>				
<b>Photos :</b>				



## ANNEX 4. POINTS DE VIGILANCE ET LE MODELE DE DECLARATION D'INCIDENT POUR LE BARRAGE HYBRIDE

### Système d'approvisionnement en eau de Morarano Chrome Rapport d'incident et d'enquête

Rapport d'incident - Résumé	
ID de l'incident	Réf n080/20-21
Organisation partenaire de RANO WASH	WaterAid
Potentiel de danger en aval	Bas
Région	Alaotra Mangoro (ALM)
District	Amparafaravola
Commune	Morarano Chrome
Date de l'incident	21 mars 2022
Type d'incident	Rupture de barrage
Conducteur de l'incident	Cyclones/fortes pluies
Mécanisme de l'incident 1	Pluies abondantes
Mécanisme de l'incident 2	Insécurité
Mécanisme de l'incident 3	Érosion et tourbillon hydraulique
Mécanisme de l'incident 4	Affouillement hydraulique
Mécanisme de l'incident 5	Effondrement du déversoir
Description de l'incident	Une série de tempêtes tropicales et de cyclones ont provoqué de longues et fortes pluies, combinées à un violent incident de sécurité, ce qui a provoqué la rupture du nouveau barrage.
Événements nommés	Tempête tropicale Ana
Décès (nombre)	Batsirai-22 Cyclone tropical de catégorie 4
Nombre de personnes évacuées	Enmati Cyclone tropical de catégorie 4
Nombre de structures habitables évacuées	0 - aucune structure habitable dans la zone concernée. La zone est une zone restreinte et protégée par le règlement



<b>Rapport d'incident - Résumé</b>	
Nombre de structures habitables inondées	0 - aucune structure habitable dans la zone concernée. La zone est restreinte et protégée par la réglementation.
Autres impacts sur les infrastructures	Aucun
Domages économiques (en \$)	23 000 USD
Volume libéré lors de la rupture (m3)	40,000 m3
Intervention	- WSP a informé RANO WASH, Commune, DREAH (2 jours après l'incident)
Remarques supplémentaires ou mises à jour	

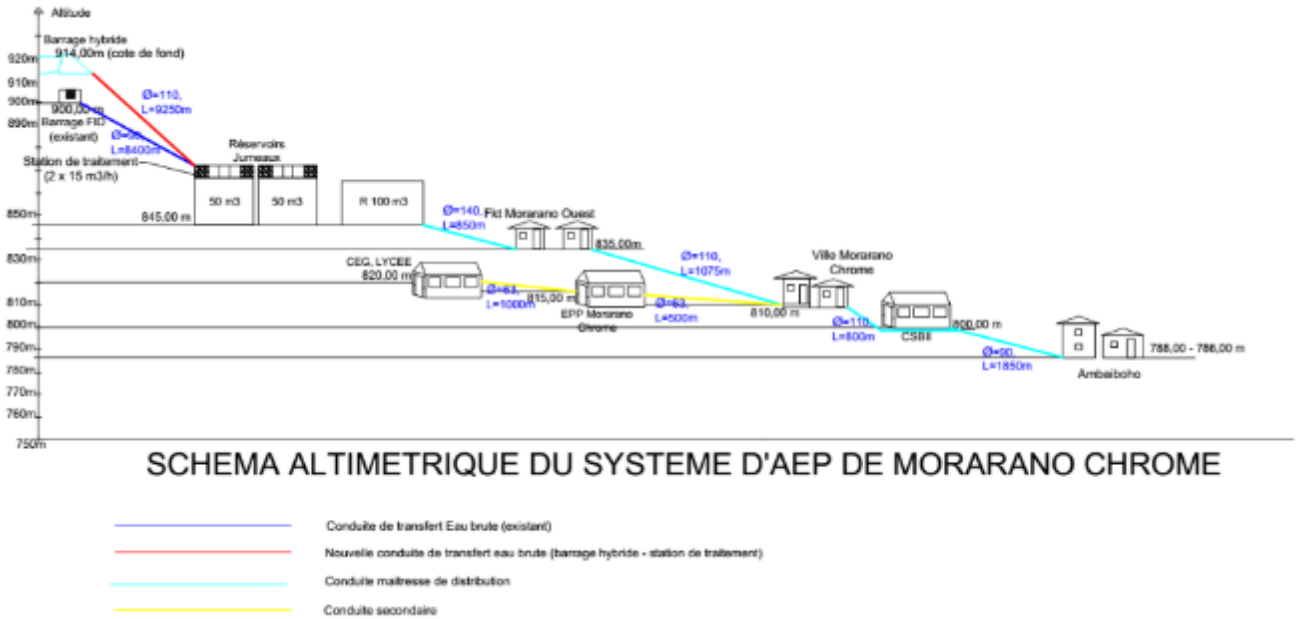
## I DESCRIPTION SOMMAIRE DU SYSTÈME AEP DE MORARANO CHROME

### I.1 DESCRIPTION SOMMAIRE DE L'INFRASTRUCTURE

Les tableaux suivants résument les caractéristiques et les mesures prises lors de la construction du système dans cette commune. (source : APD et Formulaire de Validation Environnementale (USAID) de Morarano Chrome)

<b>Type de contrat</b>	Contrat de délégation Co-investissement- Construction Exploitation et Maintenance
<b>Type de barrage</b>	Barrage hybride (voir annexe)
<b>But(s) principal(aux)</b>	Alimentation en eau de Morarano Chrome
<b>Année d'achèvement</b>	2022-
<b>Hauteur du barrage</b>	4.3 m
<b>Stockage maximal du barrage (m3)</b>	40,000 m3
<b>Surface (Km2) Bassin versant</b>	0,90 Km2
<b>Maître d'ouvrage</b>	Commune de Morarano Chrome
<b>Etude et Maîtrise d'Œuvre</b>	SANDANDRANO
<b>Fournisseur d'eau (Gestionnaire)</b>	LOVA VELU
<b>Coût total du projet</b>	Ar 891 677 316,68 (222 919\$)
<b>Contribution de l'entreprise</b>	Ar 124,824,824.34 (31,206 \$ / 14%)
<b>Population à desservir (Horizon 2038)</b>	39 800 habitants
<b>Tarifs de l'eau pour le raccordement privé</b>	Ar 1 196,30/m3 (Hors Taxes)
<b>Taux d'eau du raccordement social</b>	Ar 918,53/m3 (Hors Taxes)
<b>Tarif de l'eau au point d'eau collectif</b>	Ar 918,53/m3 (Hors taxes)

### I.2 CONCEPTION



### I.3 CONSTRUCTION

Système mis en place en 2004 par le projet IDF et mis à niveau par RANO WASH au début de cette année 2022. Toutes les phases de la construction et chaque partie des travaux et des opérations et de la maintenance du système sont présentées dans l'annexe 4.

Un extrait de l'ESF est présenté ci-dessous pour la prévision des mesures d'atténuation pendant la construction du barrage hybride avec les indicateurs de réalisation prévus :

<b>Activité : Nouvelle construction d'un barrage hybride (terre et ferrociment) pour créer un bassin de rétention de 40.000m3 dans sa partie amont</b>			
<b>Impacts potentiels</b>	<b>Mesures d'atténuation</b>	<b>Indicateurs</b>	<b>Responsable du suivi et de la mise en œuvre de ces mesures</b>
Risque d'insécurité alimentaire dû à une éventuelle expropriation de terres ou à une limitation de l'utilisation des terres en raison de la mise en	S'assurer que la cession du terrain ou la limitation de son utilisation n'a pas d'impact négatif sur la sécurité alimentaire. Si nécessaire, la municipalité doit prévoir une compensation pour le propriétaire du terrain (le projet sera soutenu).	Aucune plainte enregistrée concernant la sécurité alimentaire et l'impact de la libération des terres.	De la Commune : - Le Maire - Le Conseil Communal (CC) - Le STEAH De RANO WASH :

œuvre du bassin versant.			- L'équipe de Gestion de Contrat PPP
Risque potentiel d'érosion, de glissement de terrain et de perte de végétation dans la zone où seront extraits les remblais utilisés pour construire la partie en terre du barrage.	Choisissez une zone d'emprunt qui ne contient pas d'écosystème sensible, d'espèces protégées ou d'espèces en voie de disparition.	Érosion contrôlée dans la zone d'emprunt : pas de sol nu non compacté ou exposé.	- Tout le personnel concerné mais surtout le RPSO, assisté par l'ECS. - Sandandrano (en tant que "Maître d'œuvre") De l'entrepreneur : - Le directeur - Le directeur des travaux (ingénieur)
Risque potentiel d'envasement dû à la construction du barrage.	Assurez-vous que la zone d'emprunt choisie est correctement sécurisée pour éviter d'exacerber les phénomènes d'érosion.	Aucun glissement de terrain.	
Risque potentiel d'inondation en aval du barrage.	Après l'extraction des terres, veillez à ce que les zones d'emprunt soient nivelées selon un contour, que le sol nu soit compacté et/ou recouvert d'herbe.	L'entrepreneur fait appel à des ouvriers qualifiés pour construire le barrage.	

#### I.4 EXPLOITATION ET MAINTENANCE

##### Résumé du contrat de délégation :

Il s'agit d'un contrat de délégation de gestion d'une durée de 20 ans conclu entre la commune en tant que maître d'ouvrage et le délégataire " Entreprise SARL LOVA VELU " pour la gestion du service d'alimentation en eau potable destiné à desservir 03 fokontany (Morarano chrome, Morarano Ouest, Ambaibo) qui compte environ 22, 700 habitants (en 2018) au début du projet et 39.800 habitants à l'horizon de 20 ans de projection (en 2038) Ce contrat garantit à LOVA VELU un droit exclusif pour ce domaine de gestion déléguée et le droit d'accéder et d'utiliser les domaines publics ou privés déjà concédés dans son contrat pour la durée du contrat. Avec l'accord de la commune et l'autorisation de l'organisme de tutelle, le présent contrat pourra être prolongé dans sa durée et modifié dans son contenu selon un avenant convenu entre les parties.

Le Délégué sera chargé de produire de l'eau potable 7 jours sur 7 et sera également responsable de l'exploitation et de l'entretien du réseau d'eau. Afin de pérenniser le système, le service sera rémunéré pendant toute la durée de sa gestion contre une offre de service payant non seulement pour la consommation d'eau mais aussi aux offres de branchements des deux types selon le choix des clients. (BP et BS).

Le contrat de délégation du PPP a été signé par le Gestionnaire et la commune de Morarano Chrome, en passant par le contrôle juridique du district d'Amparafaravola. Seul l'accord du MEAH est attendu prochainement.

## **2- INCIDENT**

### **2.1 DESCRIPTION OF THE INCIDENT**

#### **2.1.1 Description générale**

Un incident s'est produit dans le système d'approvisionnement en eau de Morarano Chrome à la suite d'événements climatiques, de fortes pluies au cours du mois de mars 2022, provoquant la rupture d'un des barrages, dont la partie "déversoir" s'est effondrée.

#### **2.1.2 Chronologie détaillée**

- Date de la tempête tropicale Ana à Alaotra Mangoro (24/01/2022) :
- Date du cyclone tropical de catégorie 4 BATSIRAI dans l'Alaotra Mangoro : 03/02/22
- Date du passage du cyclone tropical de catégorie 4 EMNATI dans le Alaotra Mangoro : 22/02/22
- Date de l'incident de sécurité (le meurtre ou Vono Olona) : 17/03/22
- Date des fortes pluies : 17-18-19/03/2022
- Date de la dernière visite du technicien de LOVA VELU : 19/03/22 (pas de rupture de barrage et 5cm d'eau constatés au niveau du déversoir de 50 cm de hauteur)
- Date de la rupture du barrage de Morarano Chrome : probablement 20-21/03/22
- Date de la découverte de la rupture du barrage par le Gestionnaire de Lova Velu avec rapport de situation : 22/03/22
- Date de la descente du chef de projet sur le site : 23/03/22
- Date à laquelle la Commune a pris connaissance des dégâts : 23/03/22
- Date de l'information de la DREAH : 23/03/22 (la commune a informé la DREAH de l'incident sur le barrage)
- Date de la descente de WaterAid sur le site : 24/03/22
- Début du nettoyage du site par Lova Velu : 25/03/22
- Date de début de la rénovation du barrage par Lova Velu : Lundi 28/03/22
- Durée estimée de la mise en œuvre de la réhabilitation : 60 jours à partir du 28/03/22
- Visite de l'USAID à Morarano Chrome : 30/03/22
- Visite et contrôle du chef de projet : 26/05/2022
- L'avancement de la réhabilitation est d'environ 50% (au 11/05/22).
- NB : Aucune interruption de l'approvisionnement en eau jusqu'à présent,
- Seul le Gestionnaire a un retard dans la livraison des matériaux,
- Date d'achèvement estimée : 30 mai 22,
- Coût de la réhabilitation supporté uniquement par le Gestionnaire: 93 044 200,44Ar
- Demande de soutien financier par le Gestionnaire (27/05/2022)

### 2.1.3 Intervention d'urgence

Réunion d'urgence sur site (LE GESTIONNAIRE et Project manager) sur l'identification des causes de défaillance et l'évaluation des dommages causés par l'incident.

Partage des recommandations du chef de projet pour la reconstruction du barrage par le Gestionnaire selon son contrat (Cf. rapport du chef de projet du 23/03/2022).

Information des parties prenantes (RANO WASH, Commune, DREAH, USAID)

Reconstruction du barrage

### 2.1.4 Modes de défaillance envisagés (inclure les charges de crue et de séisme, le cas échéant)

Formation d'une brèche dans le déversoir après érosion et affouillement hydraulique



*Illustration de la rupture du barrage lors de la visite du chef de projet (23/03/2022)*

)

### 2.1.5 Résumé des données de terrain

Après observation :

- 10 ml du voile de ferrociment de 30 ml se sont brisés.
- 500 m<sup>3</sup> de remblai emportés par la crue
- le déversoir s'est effondré
- aucun dommage enregistré en aval du barrage

## **2.2 ANALYSE**

Sandandrano, le maître d'œuvre de ce système d'eau, a effectué une expertise et une enquête technique et a identifié la combinaison des facteurs et des causes :

- Il a été vérifié si le barrage était submergé, ce qui n'était pas le cas puisque la crue n'a pas emporté complètement le corps du barrage. De plus, les traces de la crue au niveau du déversoir montrent un faible niveau d'eau (environ 5 cm) dans le canal du déversoir de 50 cm de hauteur ;
- Érosion régressive de la digue. L'impact prolongé de la chute d'eau à la base du déversoir a probablement bouleversé l'enrochement en aval, créant des remous et des infiltrations d'eau sous le déversoir et provoquant une érosion régressive du remblai ;
- Le tassement de la digue. Les passages successifs de la tempête tropicale Ana et de deux cyclones suivis d'un temps sec ont très probablement affecté le compactage de la digue, qui était encore en train d'atteindre le compactage naturel après cinq (05) mois de son achèvement.
- Manque d'accès dû à une forte insécurité. La visite de routine et systématique du LE GESTIONNAIRE sur le site n'a pas été possible, car un incident violent (meurtre) s'est produit près du site de captage le 17/03/2022, quelques jours avant les fortes pluies, et la Commune a émis une interdiction de s'y aventurer seul qui a eu lieu.

En conséquence, l'accumulation de l'excès d'eau apporté par les fortes pluies dans la partie en terre en dessous du déversoir et le ressac en aval du déversoir ont entraîné le glissement de terrain, et le déversoir s'est effondré par son propre poids, entraînant dans sa chute la voile en ferrociment qui y était fixée en amont. Le barrage étant plein à ce moment-là, la pression de l'eau a intensifié l'effondrement.

Sous l'effet de l'érosion provoquée par les fortes inondations, la digue en terre affaiblie soutenant le canal du déversoir a fini par céder à la forte pression de l'eau en amont du barrage. En conséquence, la partie du déversoir du barrage située sur la rive gauche s'est effondrée, avec seulement une partie du voile d'étanchéité en ferrociment.

L'analyse de cette situation a également été complétée par une revue des incidents de barrages dans le monde (annexe 2) réalisée après la réunion.

### **2.2.1 Causes probables de défaillance**

Les fortes pluies causées par les événements climatiques successifs ont affaibli la structure du barrage qui est de construction récente et n'a pas encore atteint sa résistance optimale.

Absence de surveillance du barrage après les fortes pluies en raison de l'insécurité élevée, ce qui n'a pas permis au LE GESTIONNAIRE de vérifier le comportement de la structure et d'ouvrir la vanne de vidange à temps pour réduire le niveau d'eau dans le barrage.

(les causes contributives de la défaillance pourraient inclure des facteurs organisationnels et humains, ainsi qu'un mauvais entretien, des erreurs opérationnelles, des problèmes d'instrumentation, une mauvaise conception/construction, un manque de surveillance, et tout ce qui a créé la situation qui a mis le barrage en danger, la réglementation).

### **2.2.2 Accusé de réception d'autres rapports d'enquête (le cas échéant)**

**N/A**

### **2.2.3 Conclusions**

Les événements pluvieux successifs et les cyclones ont affaibli la nouvelle structure du barrage en provoquant une érosion de la digue en terre et des tourbillons hydrauliques en aval du barrage, ce qui a conduit à la chute du

déversoir entraînant avec lui le voile en ferrociment qui y est attaché. La pression de l'eau dans **le barrage plein a intensifié la rupture de l'ouvrage en créant une brèche dans le corps du barrage.**

## **2.3 RECOMMANDATIONS DE SÉCURITÉ/GESTION DES RISQUES**

### **LES MESURES DE PRÉVENTION SUIVANTES, EN PLACE, À RENFORCER OU À ÉTABLIR, ONT ÉTÉ DISCUTÉES :**

- En place/ à renforcer pour les situations de grande insécurité - L'agent du LE GESTIONNAIRE qui avait des instructions ou des avertissements avant les fortes pluies pour ouvrir la vanne de chasse d'eau a pu venir sur le site pour la mettre en action (le recours aux forces de l'ordre si nécessaire pour se rendre sur le site).
- En place - Le compactage de la partie en terre a été systématiquement vérifié après le passage de la tempête tropicale Ana et des cyclones tropicaux BATSIRAI et EMNATI ;
- A renforcer - Ouvrir partiellement la vanne de vidange du barrage avant le passage d'événements pluvieux de très forte intensité ;
- À envisager . Installer un système de contrôle automatique du niveau d'eau pour ouvrir la vanne de vidange. Les vannes automatiques existent au niveau du marché mais doivent être réalisées sur mesure pour chaque barrage. Cette option est très coûteuse et a un impact sur le coût de construction par rapport à une vanne manuelle. Sandandrano /BushProof réalisera une analyse comparative pour Morarano Chrome entre les vannes manuelles et les vannes automatiques.

## **2.4 AUTRES RECOMMANDATIONS**

Sandandrano a fait les recommandations suivantes pour la reconstruction du barrage :

- Améliorer la forme du déversoir en augmentant sa largeur de 4ml avec une ouverture plus large tout en conservant la largeur actuelle du canal du déversoir ;
- Installer des poteaux d'ancrage et de soutien supplémentaires à mi-hauteur du canal du déversoir pour renforcer sa structure ;
- Installer un piège à affouillement en aval du canal de l'évacuateur de crues pour limiter l'affouillement et le remous ;
- Renforcer l'enrochement aval et installer un rideau de pieux pour éviter qu'ils ne soient emportés par la crue ;
- Compacter régulièrement le remblai sur la partie aval du barrage jusqu'à obtenir un tassement stable du remblai.
- Prévision : Une mission de prospection pour étudier le comportement des barrages hybrides construits par RANO WASH sera réalisée prochainement par les équipes techniques du projet,
- Résolution financière : La LE GESTIONNAIRE a demandé une aide financière de 23,4 millions d'Ariary le 27 mai 22 pour soulager sa souffrance financière afin de poursuivre la réhabilitation du barrage à son niveau d'avancement actuel, RANO WASH via son partenaire WaterAid, prévoit de débloquer une partie du montant restant de la retenue demandée par la société.

### **3 MESURES CORRECTIVES / RECONSTRUCTION**

#### **3.1 CONCEPTION TECHNIQUE**

Le Gestionnaire commencé les travaux de reconstruction dès que possible tout en visant à maintenir un approvisionnement en eau continu (seul le nouveau barrage a été touché, l'autre zone de captage est toujours fonctionnelle).

Sandandrano a fait les recommandations suivantes pour la reconstruction du barrage :

- Améliorer la forme du déversoir en augmentant sa largeur de 4ml avec une ouverture plus large tout en conservant la largeur actuelle du canal du déversoir ;
- Installer des poteaux d'ancrage et de soutien supplémentaires à mi-hauteur du canal du déversoir pour renforcer sa structure ;
- Installer un piège à affouillement en aval du canal de l'évacuateur de crues pour limiter l'affouillement et le remous ;
- Renforcer l'enrochement aval et installer un rideau de pieux pour éviter qu'ils ne soient emportés par la crue ;
- Compacter régulièrement le remblai sur la partie aval du barrage jusqu'à obtenir un tassement stable du remblai.

Sandandrano assurera le suivi de la reconstruction et affectera un surveillant de chantier pendant la phase de réalisation.



## ANNEX 35. SAMPLE MAINTENANCE OF PUMP FED WATER SYSTEM



Madagascar

BP 182, Ivato

Aéroport 105

Antananarivo

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20.22.583.49

madagascar@bushproof.com

### Maintenance du système AEP (Andemaka)

#1	#2	#3	Actions	Réurrence	Matériel nécessaire
Station pompag e	Forage	Pompe	Nettoyage, nettoyage prise d'eau, contrôle bruit, rotor si besoin	Annuel	Outils, chiffon, eau
		Tuyauterie refoulement	Nettoyage, serrage, contrôle tension corde, attaches plastiques	Annuel	Outils, chiffon, eau
		Câblage	Contrôle isolation, connexion	Annuel	Outils
		Débit	Contrôle débit effectif, niveau dynamique. Noter variations. Voir procédure suivi	Mensuel	Clé cadenas / seau / chronomètre / sonde niveau /
	Photovolotaique	Panneaux solaires	Nettoyage, contrôle câblage et attaches	Annuel	Outils, chiffon, eau
		Câblage	Contrôle gaines, éventuel nettoyage	Annuel	Outils
	Extérieur	Sol	Nettoyage, enlever mauvaises herbes	Mensuel	Outils
		Grillage	Contrôle, peinture, points d'attache	Annuel	Outils, peinture
		Portail / clé	Fonctionnement fermeture	Quotidien	Outils
		Fossé de crête	Nettoyage	Annuel	Angady, pelle

#1	#2	#3	Actions	Récurrance	Matériel nécessaire
Station traitement	Traitement	Filtre	Evtl. changement media filtrant	Annuel	Outils, gravillons
		Pompe	Nettoyage, nettoyage prise d'eau, contrôle bruit, rotor si besoin	Annuel	Outils, chiffon, eau
		Dosage	Suivi pH, jar-test, définition dosage	Mensuel	Seaux / solution chlorée / pH mètre / DPD
		Goutteurs	Nettoyage	Mensuel	Outils, chiffon, eau
		Watalys	Nettoyage	Après chaque utilisation	Outils, chiffon, eau
		Bidons stockage	Nettoyage	Après chaque utilisation	Outils, chiffon, eau
	Photovoltaïque	Panneaux solaires	Nettoyage, contrôle câblage et attaches	Annuel	Outils, chiffon, eau
		Câblage	Contrôle gaines, éventuel nettoyage	Annuel	Outils
	Bâtiment	Intérieur	Nettoyage, aération, fonctionnement fermeture	Quotidien	Balai, outils
			Peinture si nécessaire, désinfection éventuelle	Annuel	Peinture, eau de javel, eau
		Extérieur	Nettoyage, peinture, contrôle toiture	Annuel	Outils, peinture
	Extérieur	Sol	Nettoyage, enlever mauvaises herbes	Mensuel	Outils
		Grillage	Contrôle, peinture, points d'attache	Annuel	Outils, peinture
		Portail / clé	Fonctionnement fermeture	Quotidien	Outils
		Fossé de crête	Nettoyage	Annuel	Angady, pelle
Réservoir	Extérieur	Sol	Nettoyage, enlever mauvaises herbes	Mensuel	Outils
		Peinture	Ajouter couche si nécessaire	Annuel	Outils, peinture
		Grillage	Contrôle, peinture, points d'attache	Annuel	Outils, peinture
		Portail / clé	Fonctionnement fermeture	Mensuel	Outils

#1	#2	#3	Actions	Récurrance	Matériel nécessaire
		Vannes	Contrôle fuites	Mensuel	Outils
		Tuyauterie	Contrôle fuites, attaches	Mensuel	Outils, accessoires
	Intérieur	Vidange	Vider réservoir	Annuel	Outils
		Nettoyage	Brossage, éventuelle désinfection	Annuel	Brosse, chiffons, eau
Tuyauterie (refoulement / distribution)		Fuites	Réparation (manchon ou soudure)	Constamment	Outils, accessoires
		Affleurements	Enterrer ou fixer	Constamment, après pluie	Outils, accessoires, béton, pierres
		Passages sous route	Contrôle si affleurement, protection tuyau	Constamment	Outils, accessoires, béton, pierres
Points d'eau		Robinet	Contrôle, changement si nécessaire	Constamment	Outils, accessoires
		Compteur	Contrôle, déboucher, changement si nécessaire	Constamment	Outils, accessoires
		Vanne	Contrôle, déboucher, changement si nécessaire	Constamment	Outils, accessoires
		Assainissement	Rectifier si nécessaire	Constamment	Angady, outils, pierres

## ANNEX 36. WATER COVERAGE PLANS Q4.22

### EXPECTED COVERAGE OF WATER USERS

	total # of sites	# of sites with completed support activities	Service coverage to date	average beneficiaries per year	# of sites: with ongoing support activities	expected beneficiaries for FY23	Total number expected beneficiaries by the end of the project
Water Systems/Sites operational in FY19	8	7	40,075	10,019	1	4450	44,525
Water Systems/Sites operational in FY20	18	17	61,269	20,423	1	18430	79,699
Water Systems/Sites operational in FY21	24	23	56,724	28,362	1	285	57,009
Water Systems/Sites operational in FY22	33	26	47,748	47,748	7	46195	93,943
Water Systems/Sites operational FY23	7	0	0	96 827 *	7	27468	27,468
<b>Total</b>	<b>90</b>	<b>73</b>	<b>205,816</b>	<b>51,454</b>	<b>17</b>	<b>96,828</b>	<b>302,644</b>

\* expected water service coverage in FY23

### WATER SERVICE COVERAGE Q4.22

	COMMUNE	REGION	overall target population (APD)	potential service coverage (commune)	RANO WASH Service coverage objective	FY19 Service coverage	FY20 Service coverage	FY21 Service coverage	FY22 Service coverage	% coverage to date Vs Objectives	% Coverage to date Vs Commune potential	coverage target for FY23	Additional Support
sites with coverage activities left for FY23	BEFORONA	ALM	6,851	6,851	6,851	124	889	849	539	35%	35%	4,450	7 water kiosks
	AMPARAFARAVOLA	ALM	22,400	24,400	24,400	-	99	5,740	132	24%	24%	18,430	20 water kiosks
	NAMORONA	VTV	1,786	9,000	9,000	-	-	8,715	-	97%	97%	285	5 water kiosks
	ANDRAINJATO	HTM	2,407	2,407	2,407	-	-	-	1,694	70%	70%	713	2 water kiosks
	VOHITRINDRY	FTN	9,414	9,414	9,414	-	-	-	1,557	17%	17%	7,857	5 water kiosks
	MORARANO CHROME	ALM	24,439	22,700	22,700	-	-	-	1,266	6%	6%	21,434	14 water kiosks
	AMBALAMHASOA	HTM	4,429	4,429	4,429	-	-	-	1,208	27%	27%	3,221	2 water kiosks
	IVATO	AMM	3,700	3,700	3,700	-	-	-	1,014	27%	27%	2,686	2 water kiosks
	AMBATOMARINA	AMM	3,735	3,735	3,735	-	-	-	556	15%	15%	3,179	3 water kiosks
	ILAKA CENTRE	AMM	7,548	7,548	7,548	-	-	-	443	6%	6%	7,105	5 water kiosks
	MORARANO GARA	ALM	5,500	5,500	5,500	-	-	-	-	0%	0%	5,500	5 water kiosks
	VOHIMASINA NORD	FTN	5,069	5,069	5,069	-	-	-	-	0%	0%	5,069	5 water kiosks
	MANDIALAZA	ALM	5,044	5,044	5,044	-	-	-	-	0%	0%	5,044	14 water kiosks
	NAMOLY	HTM		4,159	4,159	-	-	-	-	0%	0%	4,159	2 water kiosks
	AMBOASARY GARA	ALM		3,800	3,800	-	-	-	-	0%	0%	3,800	10 water kiosks
AMPASIMANJEVA	FTN	2,582	2,582	2,582	-	-	-	-	0%	0%	2,582	5 water kiosks	
SENDRISOA	HTM	1,314	1,314	1,314	-	-	-	-	0%	0%	1,314	3 water kiosks	
Done Started FY19	-SABOTSY ANJIRO	ALM	8,500	8,500	2,754	465	687	951	651	100%	32%		no more activities for this site
	-RANOMAFANA EST	ATS	4,793	5,997	3,937	419	2,449	165	904	100%	66%		no more activities for this site
	-ILAKA EST	ATS	9,300	14,000	13,648	405	12,519	450	275	100%	97%		no more activities for this site
	AMPASIMBE ONIBE	ATS	2,841	2,848	360	360	-	-	-	100%	13%		no more activities for this site

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	ANDOVORANTO	ATS	5,284	9,207	5,846	201	1,065	1,029	3,551	100%	63%	no more activities for this site	
	AMBATOFOTSY	FTN	6,892	6,892	1,927	167	824	550	386	100%	28%	no more activities for this site	
	MAHAVELONA (FOULPOINTE)	ATS	10,931	15,328	9,203	19	9,184	-	-	100%	60%	no more activities for this site	
Done started FY20	MAHATSARA	ATS	2,574	9,551	9,469	-	3,581	1,519	4,369	100%	99%	no more activities for this site	
	NIAROVANA CAROLINE	ATS	5,010	5,570	4,721	-	3,360	1,110	251	100%	85%	no more activities for this site	
	ANOSIBE IFODY	ALM	5,866	10,000	9,963	-	3,056	5,004	1,903	100%	100%	no more activities for this site	
	ANDEMAKA	FTN	4,856	4,856	3,542	-	2,797	500	245	100%	73%	no more activities for this site	
	KELILALINA	VTV		4,944	2,602	-	1,634	968	-	100%	53%	no more activities for this site	
	MANAMPATRANA	FTN	7,300	7,300	3,026	-	1,210	1,709	107	100%	41%	no more activities for this site	
	ANTARETRA	VTV	2,310	3,725	3,725	-	941	2,477	307	100%	100%	no more activities for this site	
	LOKOMBY	FTN	13,257	13,257	4,803	-	847	1,574	2,382	100%	36%	no more activities for this site	
	AMPASIMADINIKA MANAMBOLO	ATS	2,177	2,800	2,788	-	704	2,084	-	100%	100%	no more activities for this site	
	ANDRANOMANELATRA	VKN		700	680	-	680	-	-	100%	97%	no more activities for this site	
	ANKARIMBELO	FTN		2,750	2,724	-	473	2,231	20	100%	99%	no more activities for this site	
	MANOHISOA	VKN		350	321	-	321	-	-	100%	92%	no more activities for this site	
	RANOMAFANA	VTV		7,741	5,035	-	277	4,758	-	100%	65%	no more activities for this site	
	KALAFOTSY	FTN		1,340	1,335	-	239	968	127	100%	100%	no more activities for this site	
	SANDROHY	VTV		200	190	-	190	-	-	100%	95%	no more activities for this site	
	AMBOHIDRANANDRIANA	VKN		50	42	-	42	-	-	100%	84%	no more activities for this site	
ANIVORANO EST	ATS		350	332	-	9	-	323	100%	95%	no more activities for this site		
Done Started FY21	TANAMBAO BESAKAY	ALM		15,000	13,557	-	-	13,557	-	100%	90%	no more activities for this site	
	AMBINANITROMBY	FTN		7,472	4,701	-	-	4,650	51	100%	63%	no more activities for this site	

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	ANOLOKA	FTN		4,500	4,212	-	-	4,101	111	100%	94%	no more activities for this site	
	FETRAOMBY	ATS	1,581	3,002	2,905	-	-	2,905	-	100%	97%	no more activities for this site	
	MAROMIANDRA	FTN		2,500	2,480	-	-	2,480	-	100%	99%	no more activities for this site	
	ILAKATRA	FTN		2,300	2,293	-	-	2,078	215	100%	100%	no more activities for this site	
	SAVANA	FTN		2,050	2,030	-	-	2,030	-	100%	99%	no more activities for this site	
	ANALAVORY	FTN		1,630	1,621	-	-	1,621	-	100%	99%	no more activities for this site	
	TSARATANANA	VTV	2,547	2,000	1,521	-	-	1,437	84	100%	76%	no more activities for this site	
	MAVORANO	FTN		1,250	1,226	-	-	1,226	-	100%	98%	no more activities for this site	
	VOHILAVA	FTN		1,100	1,086	-	-	1,086	-	100%	99%	no more activities for this site	
	TANAKAMBANA	FTN		1,100	1,062	-	-	1,062	-	100%	97%	no more activities for this site	
	TOLONGOINA	FTN		1,300	1,291	-	-	1,029	262	100%	99%	no more activities for this site	
	FENOMBY	FTN	1,500	2,764	1,934	-	-	968	966	100%	70%	no more activities for this site	
	ANDONDABE	ATS	1,105	1,600	1,564	-	-	968	596	100%	98%	no more activities for this site	
	ANDEKALEKA	ATS	1,400	1,000	968	-	-	968	-	100%	97%	no more activities for this site	
	MAHABO	FTN		1,230	1,128	-	-	563	565	100%	92%	no more activities for this site	
	ANDRORANGAVOLA	VTV		550	540	-	-	540	-	100%	98%	no more activities for this site	
	NATO	FTN		550	535	-	-	535	-	100%	97%	no more activities for this site	
	AMBIABE	FTN		800	682	-	-	515	167	100%	85%	no more activities for this site	
	MANAKANA NORD	VTV		520	517	-	-	510	7	100%	99%	no more activities for this site	
	ANDEFAMPONY	FTN		120	119	-	-	119	-	100%	99%	no more activities for this site	
	ANKARIMBARY	FTN		50	34	-	-	34	-	100%	67%	no more activities for this site	
	AMBODILAZANA	ATS	4,110	9,000	6,197	-	-	-	6,197	100%	69%	no more activities for this site	

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Done Started FY22	TSARASAOTRA	AMM	2,831	4,724	4,724	-	-	-	4,724	100%	100%	no more activities for this site	
	AMBOAVORY	ALM	2,758	16,135	4,605	-	-	-	4,605	100%	29%	no more activities for this site	
	NIHERENANA	ATS	2,912	6,025	3,898	-	-	-	3,898	100%	65%	no more activities for this site	
	TSARASAMBO	ATS	4,480	4,480	3,652	-	-	-	3,652	100%	82%	no more activities for this site	
	ANTSOATANY	VKN	4,536	4,536	2,268	-	-	-	2,268	100%	50%	no more activities for this site	
	AMBOHITSIMANOVA	VKN	1,898	2,070	2,052	-	-	-	2,052	100%	99%	no more activities for this site	
	AMBODITAVOLO	ATS		2,000	1,919	-	-	-	1,919	100%	96%	no more activities for this site	
	SOANINDRARINY	VKN	1,680	1,680	1,590	-	-	-	1,590	100%	95%	no more activities for this site	
	ANDONABE	VTV	5,000	5,000	1,497	-	-	-	1,497	100%	30%	no more activities for this site	
	ANDRAINJATO EST	HTM		2,279	1,205	-	-	-	1,205	100%	53%	no more activities for this site	
	ANDROY	HTM	4,718	4,718	1,017	-	-	-	1,017	100%	22%	no more activities for this site	
	SAHAMADIO FISAKANA	AMM		950	782	-	-	-	782	100%	82%	no more activities for this site	
	ALAKAMISY AMBOHIJATO	AMM		778	778	-	-	-	778	100%	100%	no more activities for this site	
	AMBOSITRA II	AMM	2,547	2,547	755	-	-	-	755	100%	30%	no more activities for this site	
	AMBOHIMILANJA	AMM		800	705	-	-	-	705	100%	88%	no more activities for this site	
	AMBOHIMHAZO	AMM		600	600	-	-	-	600	100%	100%	no more activities for this site	
	VOHIMENA	ALM	1,850	500	446	-	-	-	446	100%	89%	no more activities for this site	
	ANJOMAN_ANKONA	AMM	5,380	5,380	404	-	-	-	404	100%	8%	no more activities for this site	
	FANDRANDAVA	HTM		2,853	259	-	-	-	259	100%	9%	no more activities for this site	
	SAHATSIHO AMBOHIMANJAKA	AMM		215	215	-	-	-	215	100%	100%	no more activities for this site	
MAROFARIHY	FTN		250	208	-	-	-	208	100%	83%	no more activities for this site		
BEKATRA	FTN		120	114	-	-	-	114	100%	95%	no more activities for this site		



Rural Access to New Opportunities in Water, Sanitation, And Hygiene  
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	COMMUNE	REGION	overall target population (APD)	potential service coverage (commune)	RANO WASH Service coverage objective	FY19 Service coverage	FY20 Service coverage	FY21 Service coverage	FY22 Service coverage	% coverage to date Vs Objectives	% Coverage to date Vs Commune potential	coverage target for FY23	Additional Support
	ZAFNDRAFADY	FTN		65	61	-	-	-	61	100%	94%	no more activities for this site	
	AMBAHIVE	FTN		50	31	-	-	-	31	100%	62%	no more activities for this site	
	ANDRANOVORIVATO	HTM	1,424	2,424	28	-	-	-	28	100%	1%	no more activities for this site	

## ANNEX 37. WATER SYSTEMS PROFITABILITY AND BUSINESS MODELS ANALYSIS

Analyzing the profitability of systems built under RANO WASH is an interesting exercise for the whole WASH sector, companies, projects, financial institutions, or ministries will have data on the sector's profitability.

RANO WASH has initiated a strategy based on the concept of an Investor-Build Operate PPP model, with the advantage of a strong competence of companies in the field of construction and, as a major challenge, the addition in the activity of these companies of the management and marketing of drinking water services.

The objective of this document is to analyze the evolution of RANO WASH's partner companies from the beginning of the operation until the end of FY22 to determine if, on the one hand, the management of drinking water services is profitable or not and on the other hand if the addition of the management activity to a company specialized in a different field supported by a capacity building is a profitable approach

### METHODOLOGY AND METRICS

Data collection (type of data, quantity, profile of operators surveyed)

The business case focuses on the operation of a drinking water utility. The data collected from the companies revolves around the operation of drinking water systems and was standardized for all companies. A total of 14 **companies** operating 25 systems provided the requested analysis data.

WSPs can manage multiple systems at once; however, only the number of systems managed by the WSP in its partnership with RANO WASH is documented here.

Number of systems managed by WSPs (in RANOWASH) Number of companies %.	Number of systems managed by companies (in RANOWASH) Number of companies %.	Number of systems managed by companies (in RANOWASH) Number of companies %.
1 single system	7	50%
2 to 4 systems	3	21%
5 systems and more	4	29%
<b>TOTAL</b>	<b>14 enterprises</b>	<b>100%</b>

The following table summarizes the analyzed operating times of the sites

Date of start of operation Number of sites	Date of start of operation Number of sites	%
Before the start of the project (PPP+)	2	8%
2019	1	4%
2020	6	24%
2021	6	24%
2022	10	40%
<b>TOTAL</b>	<b>25</b>	<b>100%</b>

The project collected the following data from the WSPs:

- Operating expenses per month: fixed and variable in MGA per month;
- Revenues per month;
- Volume of water billed per month;
- Number of active subscribers per month.

In order to answer the question of the profitability of the sites as well as the evolution of the WSPs, three elements have been analyzed in this document:

- **The structuring of costs related to the management of a system:** the cost structure is one of the most "accessible" elements of the business model for the company to optimize. The project's partner companies have accumulated more than 4 billion ariary in operating expenses up to FY22. The analysis takes advantage of this volume of expenses to dissect the percentages of each type of expense (fixed, variable or exceptional).
- **The ratio between cash inflow and outflow at each water system's level** is composed of two values, the turnover and the fixed charge. The ratio between the two values indicates the water system's profitability, practically how often the system generates the money spent on expenses. Here we choose the fixed cost as a reference because it constitutes the vast majority of the expenses (75%) in the systems, the other costs are very variable, even random and become less and less significant when the system is fully functional. Nb: the "turnover/fixed costs" metric used is the most recent value for each system. The turnover, if expressed alone, is counted annually to take into account seasonal variations and then averaged per month, as are the fixed costs, which are also expressed monthly in order to be able to determine more easily whether the value in question is empirically reasonable (monthly turnover too low, salary costs too high, etc.). The metric corresponding to this value is the T/FC ratio (turnover/fixed costs) which corresponds to the performance scores detailed in the paragraph below.
- **The evolution of the WSPs' performance over the systems and years of operation:** this analysis uses the same metrics as before (T/CF ratio) and compares the evolution of these values from one system to another or from one year to another for

the same enterprise. This makes it possible to see how the same enterprise has improved with the support provided by the project.

- Other indicators will be analyzed in later analyses (number of beneficiaries and seasonal variations, turnover according to volume, investments and depreciation...)

## ANALYSIS OF WSPS EXPENSES

This analysis has been made from 25 piped drinking water infrastructure set up under the RANO WASH Project, as part of its objective to increase access to basic and safely managed drinking water in the regions of intervention.

This analysis covers 14 enterprises managing 25 water systems in 7 regions of the project intervention, over a period of operation between one and three years, for a cumulated operating and maintenance expenses of 4 408 150 707 MGA / 1,033,071 USD. This amount corresponds to the total expenses for exploitation on the 25 systems analyzed since the beginning of exploitation for each site to now.

Fixed costs represent a major part of operating expenses and consist mainly of local human resources costs at the site level.

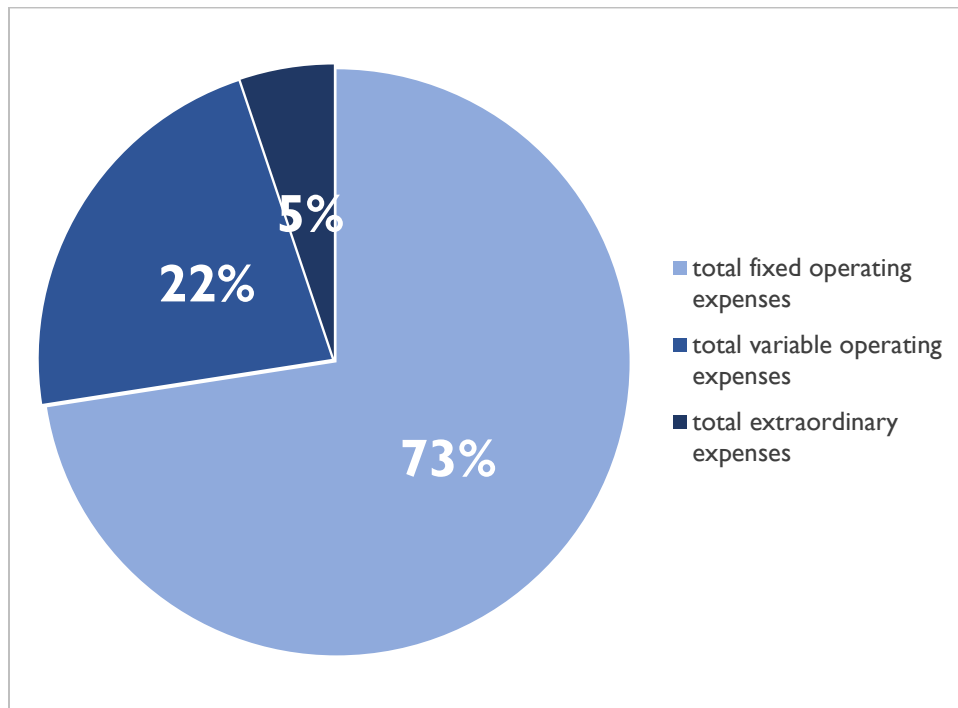


Figure 9. Distribution of expenses (analysis of 25 enterprises)

## Analysis of the evolution of the number of water subscription

	No of water subscription	% annual growth in water subscription
<b>average</b>	225,28	19%
<b>min</b>	54	5%
<b>max</b>	1231	32%

Water subscriber growth range from 5% to 32% per year, with an average of 19% annual growth over 3 years of operation and maintenance. While user demand and potential guarantees the growth in the number of water connections at the site level, compared to the forecast, the rate of service coverage remains lower for all sites.

### Analysis by site: Strong disparity in the profitability of the sites.

To analyze the management performance of the sites, the ratio of sales to fixed operating costs was used (Turnover/Fixed Costs).

This indicator gives an idea of the revenue obtained per ariary spent to manage the water infrastructure. The values can be categorized as follows:

- 1** **T/FC < 1. Poor Performance.** the enterprise pays more money to manage the site than it earns on this site. This reflects an insufficient performance to make the site profitable (often due to fixed charges too high compared to the current number of beneficiaries).
- 2** **1 < T/FC < 1,2. Barely Profitable.** The T/FC ratio shows that the site is profitable but does not really bring much profit (less than 20% of gross margin).
- 3** **1.2 < T/FC < 2. Profitable** the water system brings enough profit for its manager and at more than 2 it is clearly profitable.
- 4** **T/FC >2 very profitable**

**Table. Site Performance management**

Sales revenue/management performance	insufficient to make the site profitable (T/FC<1)	Just enough to make profitable (1<T/FC<1.2)	Good performance (1.2<T/FC<2)	Very good performance (T/FC>2)
Turnover More than 10M Ar				1 site
Turnover Between 2M Ar and 10M Ar	1 site			1 site
Turnover between 1M Ar and 2M Ar	2 sites		2 sites	4 sites
Turnover between 500 000 Ar and 1M Ar	4 sites	2 sites		2 sites
Turnover less than 500000 Ar	2 sites			4 sites
<b>TOTAL</b>	<b>9 sites</b>	<b>2 sites</b>	<b>2 sites</b>	<b>12 sites</b>

The analysis of the sites' performance shows that most of the sites are either very well managed or are not managed in a profitable way. Only 2 sites out of 25 analyzed show average management. This reflects a significant divide between "well run" sites and sites in the process of improving their performance; the transition is not smooth. A more detailed observation of the summary table of profitability parameters shows that the same company manages "very well managed" sites and low performance sites at the same time. This is mainly due to the prioritization at this point in time of the business case for the actions brought to the site (see below section: business model, prioritization factors by the WSPs of the actions).

## ANALYSIS BY WSP: SEVERAL PROFITABILITY STRATEGIES

A company manages several sites whose profitability may differ and several profitability strategies are observed:

### INDICATORS THAT INFLUENCE THE PROFITABILITY

- **Turnover per water system/site.**

This indicator shows the actual production sold at the site level. The monthly fluctuation of the turnover shows a peak in water consumption during low water periods, and a significant reduction ranging from 30% to 80% of the turnover during rainy periods.

- **Management performance by water system.**

This indicator is site-specific. It evolves most often by leaps and bounds, clearly visible at a given moment in the analysis from one site to another, as opposed to a gradual evolution within the site, i.e., the management performance changes abruptly (for example, following the dismissal of human resources who were incurring too many expenses) because it is strongly influenced by the fixed expenses and the resources that are attached to these expenses.

- **The number of water systems managed**

## PROFITABILITY STRATEGIES (PERFORMANCE, NO OF SITE, TURNOVER PER SITE)

### - Equalization

For example, Water Service Provider 1, a company based in Antsirabe, manages several sites, some of which are currently underperforming (the most remote) but are being overtaken by the "easy" sites (because they are closer to home), with a "positive" overall profitability (in this case, 75,128 Ar per month) for all the sites. The company's main source of revenue is construction work, and although this is very low, it adds to the revenue from the work while awaiting prioritization as soon as the schedule allows.

### Example 1. Water Service Provider 1

SITE	ANNUAL TURNOVER	ANNUAL PROFIT OR LOSS
Site 1.1	643 705 Ar	- 422,620 Ar
Site 1.2	780 230 Ar	- 715 970 Ar
Site 1.3	590 197 Ar	96 622 Ar
Site 1.4	1 147 473 Ar	511 873 Ar
Site 1.5	1 125 223 Ar	605 223 Ar
<b>TOTAL</b>	<b>4 286 828 Ar</b>	<b>75 128 Ar</b>

This strategy is transitory and often indicates a bottleneck in the company's activities that limits the parallel improvement of the performance of all sites, however the company is in good development capacity.

### - Small profits, but many sites, good management

Like Water Service Provider 2, based in Toamasina, the analysis of the management of several sites shows that all are "profitably managed". However, the unit turnover per site remains relatively low and disruptions are not prioritized because of the risk of destroying this already established profitability.

### Example 2: Water Service Provider 2

WSP2 SITES	# OF CONNECTIONS (+ COVERAGE)	OF %	TURNOVER	RESULTS FOR THE YEAR	TURNOVER / FIXED COSTS RATIO	T/FC SCORE
Site 2.1	133 connections (20%)		527 850 Ar	203 000 Ar	2,6	4
Site 2.2	229 connections (65%)		450 952 Ar	250 952 Ar	2,2	4
Site 2.3	101 connections (68%)		534,195 Ar	334,195 Ar	2,7	4
Site 2.4	112 connections (65%)		407 925 Ar	204 925 Ar	2,0	4
Site 2.5	201 connections (69%)		600 417 Ar	397 417 Ar	2,9	4
Site 2.6	91 connections (63%)		433 665 Ar	233 665 Ar	2,2	4
<b>TOTAL</b>	<b>867 connections</b>		<b>2 427 154 Ar</b>	<b>1 218 154 Ar</b>	<b>2,4</b>	<b>4</b>

- **Strong profitability, but on a few sites**

Water Service Provider 3 gives the example of exploiting the full potential of a site with the highest turnover among the sample (11M Ar per month). The strategy is based on the size and intensification of a system.

**Example 3: Water Service Provider 3**

WSP 3 SITE	# OF CONNECTIONS (+ % COVERAGE)	Turnover	Sales / Fixed costs	T/FC score
Site 3.1	761 connections (90%)	11 349 552 Ar	2,09	4

- **High profitability on several sites**

The ideal scheme is to have a good management that brings profitability to several sites. An experienced and well-structured company can achieve this kind of long-term results. As for example Water Service Provider 4, based in Antananarivo and has several sites in Atsinanana and Alaotra Mangoro.

**Example 4: Water Service Provider 4**

WSP 4 SITES	# OF CONNECTIONS (+ % COVERAGE)	Annual Turnover	Sales / Fixed costs ratio	T/FC score
Site 4.1	238 connection (6%)	6 416 666 Ar	2,4	4
Site 4.2	141 connections (66%)	1 953 521 Ar	4,0	4
Site 4.3	238 connection (90%)	2 393 716 Ar	2,3	4
<b>TOTAL</b>		<b>10 763 903 Ar</b>	<b>2,6</b>	<b>4</b>

**Experience is important: the evolution of a company's management capacity as the number of sites managed increases**

The experience of the company has a great influence on the management capacity. In cases where the sites are remote, it can take a long time to correct the company's inexperience. The table below shows the evolution of on WSP's management capacity over the course of the contracts.

**Example 5: Water Service Provider 5**

SITE	START-UP YEAR	Turnover/Fix ratio	Cost	T/FC score
Site 5.1	FY20	0,52		1
Site 5.2	FY20	0,60		1
Site 5.3	FY21	1,20		2
Site 5.4	FY22	1,81		3
Site 5.5	FY22	2,16		4

The most experienced companies all show a turnover/CF ratio higher than 2. The less experienced companies have a turnover/CF ratio lower than 1 for most of them.



### **Business model, Factors influencing the prioritization of actions at the WSP level :**

- The structure of the vast majority of WSP companies is centered around the manager, not only for strategic decisions related to the development of the company, but also for technical decisions related to construction activities. The history of each company has a considerable influence on how it is structured: WSP companies were created and are managed mainly by hydraulic engineers or construction engineers, who are at the same time productive resources of the company. Each new construction contract represents an "almost full-time" assignment of the manager, which has the direct consequence of reducing the time spent on the management of sites already in operation. Strategic decision making at a functional site requires the director to make an on-site diagnosis (mission) and then to follow up on it until a new state of equilibrium is reached. The common observation with systems is that once a system is up and running, maintaining the status quo is prioritized as long as the company's finances allow in order to limit disruptions to systems that are already "up and running" if other construction contracts are in progress.
- RANO WASH's partner construction companies have seen their experience and reputation increase with all stakeholders in the drinking water sector. At the same time, the companies' construction contracts are also increasing. In data collection interviews with a sample of RANO WASH partner companies, 66% (12 out of 18 companies interviewed) of the companies interviewed have ongoing construction contracts in parallel with site management in the operational phase, mostly in remote locations. The increase in the number of contracts and the disparity of construction sites from existing sites significantly limits the concentration of WSPs in operating sites. Priority is given to construction contracts given the amount of margin in the business. This trend is clearly confirmed by the analysis of the turnover and expenses of the companies, which generally subsidize management-related activities through new construction, based on decisions related to the financial productivity of the activities: the construction activity is more profitable than management, given the current skills of the companies.
- The security of the company's current revenues: the company's financial equilibrium is largely based on the local resources, activities and budget allocated to the site. Increasing the profitability of a site implies modifying this balance without guaranteeing results. The company thus prioritizes the maintenance of a slow but costless development.

### **Important notes:**

**Contrary to appearances, the operations and maintenance phase is very important for WSPs.** WSPs tend to prioritize taking part in tendering and contracting processes for the construction of new water systems over often perceived high investments in equipment and supplies (meters, pipes, etc.) to address household demands, optimize operating costs and water revenues for existing or recent water supply systems (for instance with own funds or through bank loans).

Companies do prioritize construction contracts because they are comfortable and experienced in this type of short-term activity (6 months). However, companies are willing to make a great deal of financial effort to keep operations as a backup activity, which translates into maintaining system resources despite the lack of profitability of some sites. This observation is all the more visible when analyzing the allocation of company revenues: the companies' work activities finance the exploitation part for many "young" systems.

Interventions carried out in the periods considered as "**windows of attention**" of the WSPs for a particular system define the speed of profitability of a site. The evolution of connections in different sites shows a major influence on project activities. A typical beneficiary evolution curve includes two successive and repeating phases:

A growth phase in which the company is strongly focused on site development (human resources, missions, staff training, equipment, or meter allocations, etc.), during which activities lead to a rapid increase in the number of connections, followed by a latency period in which few new connections are established. The growth dynamics of the activities are linked to the attention paid by the WSPs to the systems that correspond to the periods of support by the project (provision of meters, extension materials, marketing training, etc.)

**Outsourcing of** the activities of increasing the number of beneficiaries and current management at the level of the systems is a relevant option in the face of this particular business context. The project is carrying out a first attempt at outsourcing via the partnership with sub-delegates, notably MANAMPY Corporation, which ensures intra-system growth while the WSPs ensure the production and technical aspects of the systems. This transitional option could be relevant for sites with management difficulties.

## **ANNEX 38. WATER KIOSKS BUSINESS MODEL Q4.FY22 UPDATE**

### **BUSINESS MODEL EVOLUTION**

In Q1 FY22, RANOWASH and MANAMPY CORPORATION conducted technical tests on an automatic distribution system based on an electronic water dispenser. Triggered by an MGA 50 coins and regulated by electronics, the dispenser provides water to surrounding households at any hour. From the managers' perspective, the system is an opportunity to make a semi-autonomous waterpoint that deserves people and collects payments. The model has the main advantage of being scalable.

After the USAID visit on-site by the end of March 2022, technical tests have concluded that improvements were needed for the kiosk. The main concerns were not technical but related to the business model. The recommendations were to improve the model to make it more dynamic. Considering the water points to be "temporary" has to be translated into actions.

The idea was to implement automatic water points that reach many customers at first using the kiosk. Then reuse all the generated income to lower the cost of private connections. Implementing the kiosk is an innovative way to reach basic water services beneficiaries and an alternative for effectively financing private connections in rural areas. As a remark, the appropriate usage of the incomes generated by the kiosks will be ruled by an article inside the contract between the distributor and the WSP to be effectively translated to real beneficiaries.

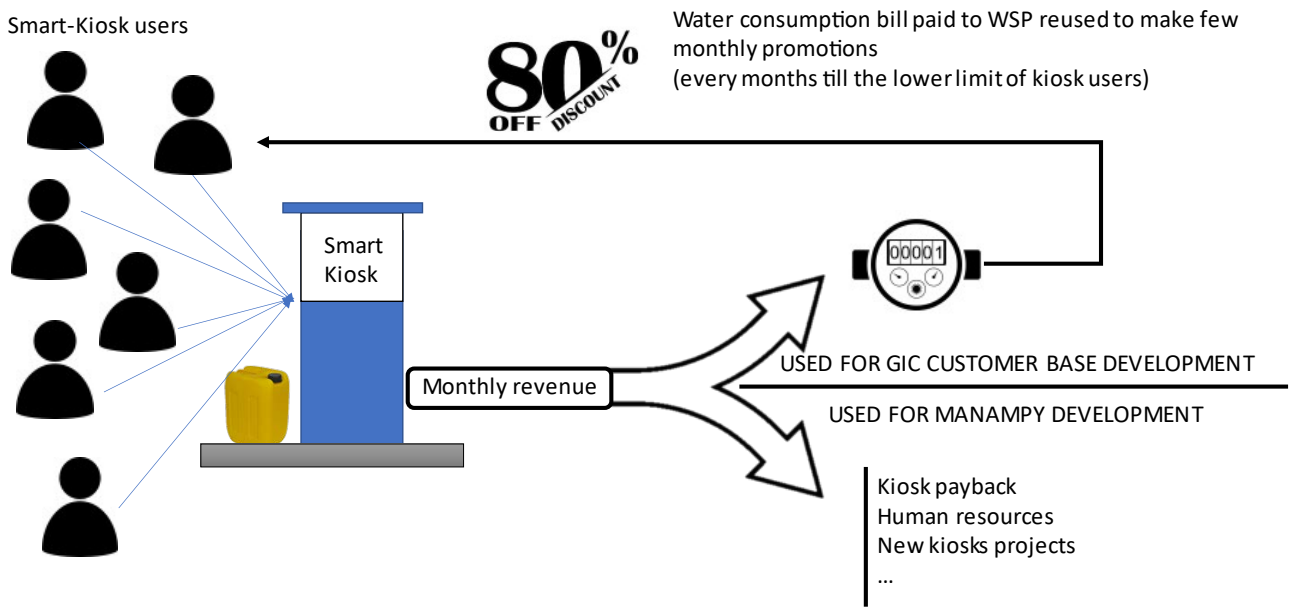
### **OBJECTIVES:**

The objectives of the business model improvement were:

- to leverage mass users via a small payment (MGA 50 per jerrycan) and
- to generate income that will be used to promote constant promotion for private connections.

### **HOW THE MODEL WORKS**

The following infographic resumes the financial flow around the kiosk. The objective is first to get as many people as possible to use the kiosk. Then progressively decrease the number of users through a promotional discount according to the money accumulated in the kiosk during the month. This will allow a regular increase in private connections sold at a more affordable price.



**FINANCIAL CIRCUIT OF THE WATER KIOSK MODEL**

**COSTS CALCULATIONS:**

During a workshop, a simulation of beneficiaries was presented to the Communes and WSPs. The basic parameters were discussed together and were appropriate and feasible for the different stakeholders.

The basic parameters are:

- The average number of kiosks deployed in a Commune= 10;
- Minimal number of households using one kiosk at the beginning of the installation: 25;
- Average water consumption per household (jerrycans per day) = 4;
- Cost of one promotional offer for the WSP= MGA 100,000.

The gross revenue generated by the kiosk will be MGA 900,000 per month for the WSP. For MANAMPY, the gross revenue will be MGA 600,000, and the total amount will be MGA 1,500,000 per month. The MGA 900,000 collected for the WSP will be used to make nine (9) promotions discounting MGA 100,000 per water connection on total connection cost.

The following chart resumes the evolution of users: the decreasing number of kiosk users and the increasing number of private connections users. Over the years, the number of private connections users will naturally keep increasing.

**Evolution of water service users: switching from kiosk users to private connections users over three (3) years of kiosk usage**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
<b>year 1</b>												
<b># of kiosk users (households)</b>	<b>250</b>	241	233	225	218	210	203	196	190	183	177	171
<b># of promotional offers</b>	9	8	8	8	7	7	7	7	6	6	6	6
<b># of private connections</b>	<b>20</b>	29	37	45	52	60	67	74	80	87	93	99
<b>year 2</b>												
<b># of kiosk users (households)</b>	165	160	155	149	144	139	135	130	126	122	118	114
<b># of promotional offers</b>	6	5	5	5	5	5	5	4	4	4	4	4
<b># of private connections</b>	105	110	115	121	126	131	135	140	144	148	152	156
<b>year 3</b>												
<b># of kiosk users (households)</b>	110	106	103	99	96	93	89	86	84	81	78	<b>75</b>
<b># of promotional offers</b>	4	4	3	3	3	3	3	3	3	3	3	3
<b># of private connections</b>	160	164	167	171	174	177	181	184	186	189	192	<b>195</b>

### BENEFICIARIES' PROJECTION FOR EACH COMMUNE

Commune	# kiosks	Beneficiaries' projection	Safely managed conversion by end of 2022
Ambosary Gara	10	2,800	885
Mandialaza	8	2,340	739
Morarano Chrome	12	4,435	1,401
Anosibe Ifody	8	2,081	658
Beforona	4	928	293
Sabotsy Anjiro	4	1,009	319
Amparafaravola	12	8,436	2,666
Morarano Gara	8	3,600	1,138
Ambatosoratra	6		0
Tanambe	8	2,824	892
<b>TOTAL</b>	<b>80</b>	<b>28,453</b>	<b>8,991</b>

### CONTRACT BETWEEN SUB-CONTRACTOR AND WSP

The business model of the water kiosk is aimed to be implemented by different stakeholders. The contract between WSP and the sub-contractor MANAMPY was conceived to ensure that safely managed beneficiary conversion is done regularly and the WSP efficiently uses the finance generated by the kiosk to increase their customer base.

### IMPORTANT UPDATE IN THE INSTALLATION AND OPERATION OF AUTOMATIC WATER KIOSKS AND CORRECTIVE ACTIONS TAKEN TO DATE

Certain siting trends have a significant impact on the cost effectiveness of kiosks. Locating kiosks where there are few private connections, targeting a neutral point where more people can access the kiosk, or placing kiosks along distribution lines can be good options but, depending on the user, can be detrimental to the profitability of the collective water point. Each parameter driving the choice must be centered on the end user. This paper summarizes the lessons learned from the early phases of automatic water kiosk deployment.

## ELEMENTS APPLICABLE WHEN CHOOSING THE LOCATION OF THE KIOSK

### Box #1: choice of location with specific targeting



The kiosk is represented here by the blue circle.

The three arrows identify three groups of houses with households potentially using the kiosk but with no real identification of who the kiosk is actually dedicated to.

This type of location is difficult to launch

## CORRECTIVE ACTION LOCATION SELECTION BASED ON COMMUNITY STRUCTURE



Example of an ideal location:

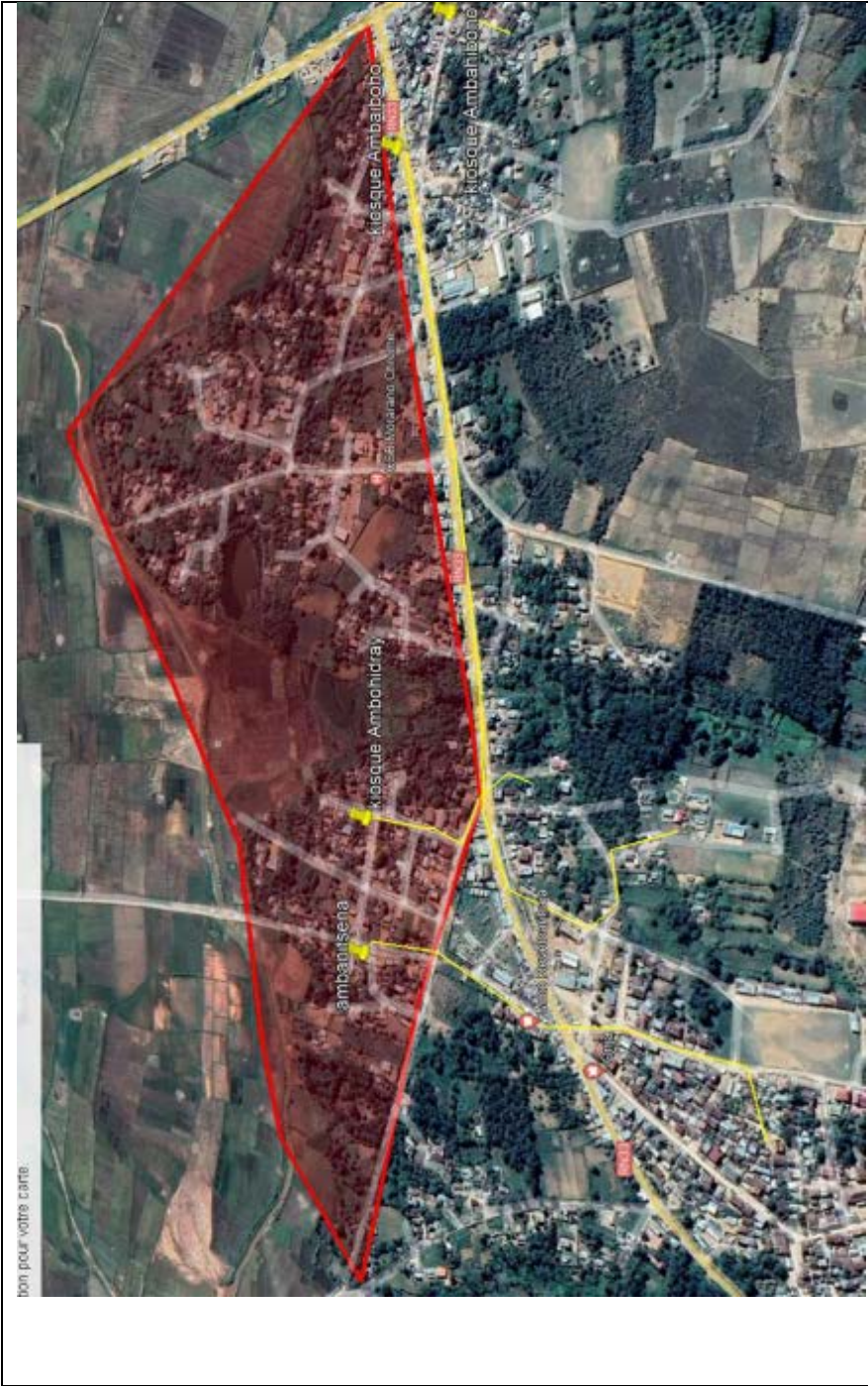
- Well-defined target group, to ensure good ownership of the water point
- Adequate number of households to ensure the profitability of the kiosk
- Fair distance for all households, for a good quality of service
- Low indirect competition

This type of location is ideally sought after as a priority for setting up an automatic kiosk.

For a collective water point, the notion of ownership is critical to the profitability of the kiosk. An important element is to consider that all communities have access to water services in one way or another, and this according to a supply routine that is very well established. A new water point, even one that is closer, may not be used by everyone at once. The "community" aspect and heritage of collective water points creates a latency in

use if the water point is located in a too "commercial" place. Indeed, the habit is that generally, a collective water point is used by defined persons whose list is established according to a nominative management mode of the users. A restricted group of users is more cohesive, quickly sensitizes the others and the kiosk gains much more in proximity and quality of service than a location prioritizing the potential mass of users.

**Box #2: Location selection based on lack of connections in an area**



When analyzing the location of water points in this area, the red zone showed very few private connections and the survey of the manager also showed that there are not many requests from this area.

The kiosks installed in this area have a lower profitability than the other areas despite numerous communication actions.

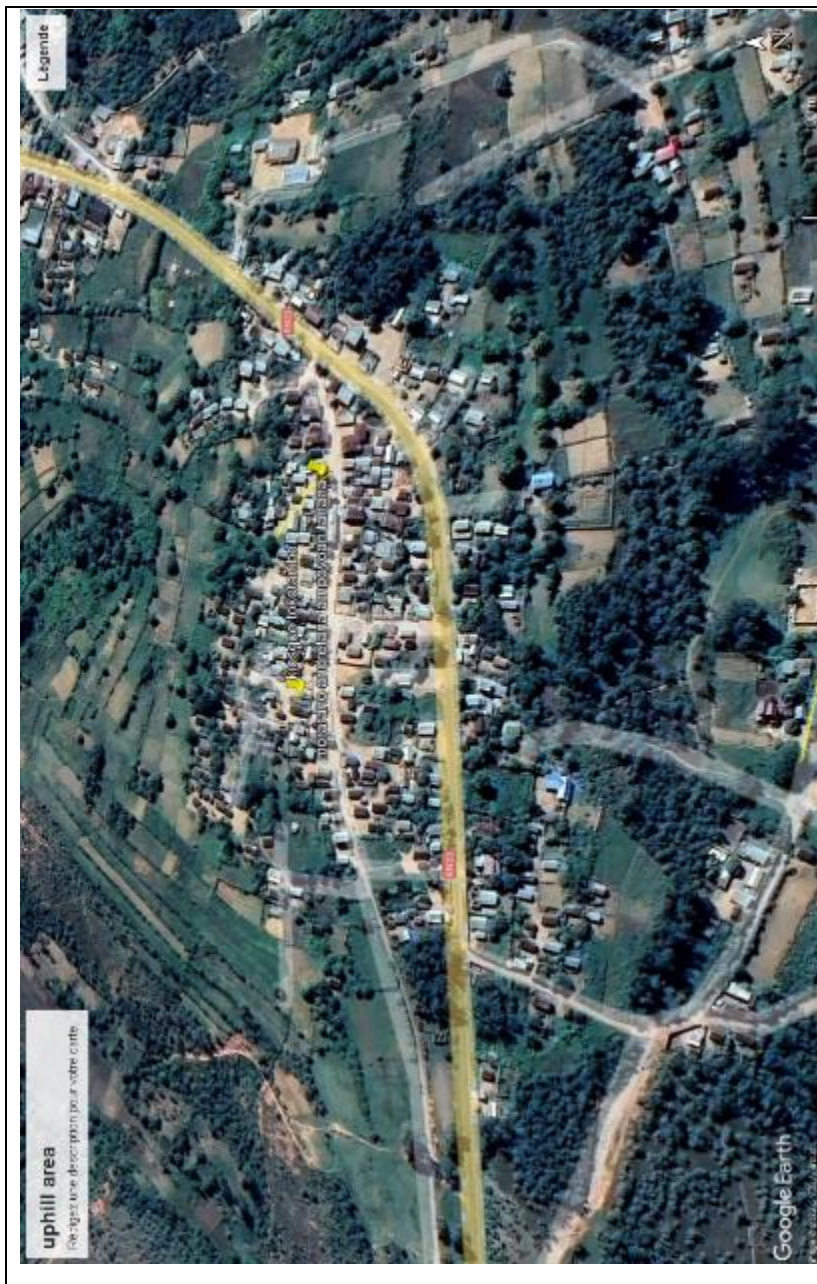
This zone corresponds to a low-lying area, with a very good proximity to the open water table. Almost all households have access to a well. Direct access or via a relative.

Communication and outreach activities result in increased kiosk usage but with reduced volumes.

This type of area must be identified and analyzed before installation in order to adapt costs, returns on investment and additional activities related to indirect competition.



**Corrective Action:** Site selection based on household demand, topo-sequence and potential competitors.



This zone corresponds to an elevated area. The water table is very deep and digging wells is too difficult for households. As the nearest springs are several hundred meters away and the system has been supplying this area for some time, a few wealthy people have been able to acquire connections (mainly the two traders in the area). In contrast to the previous area, indirect competition is non-existent, but is replaced by direct competition from private water vendors.

Profitability is thus determined by the number of households in the vicinity of the kiosks compared to direct competition.

Placing an automatic kiosk in an area where there are no connections requires the planning of additional actions and a cash flow forecast before hoping to reach a production regime. One of the natural tendencies as a technician is to identify areas that have no specific service connections and place kiosks there. However, this approach is not necessarily financially viable for the kiosk because indirect competition is often abundant (wells, low-lying springs, natural water sources, etc.). Although the number of users is roughly the same as at other locations, the amount of water withdrawn is less because this water is reserved for sensitive uses, notably just for meals, and the rest of the water consumption is taken elsewhere.

**Box #3: Always take into account the orientation of the accesses to the houses**



The kiosk here represented by the blue ring, targets users in the blue circle. The kiosk was installed in an area behind the houses and the households were informed of the position of the kiosk.

Access to the kiosk creates a significant detour for households as there is no access from the back of the houses, which has limited the profitability of the kiosk.

**Corrective Action** Placing the kiosks in the axis of access to the houses.



Placement in front of homes improves the financial productivity of the kiosk for virtually the same targeted households compared to a location in the back of homes.

The position of the kiosk, in front or behind the house, is very important. A kiosk behind the house, even if it is placed relatively close, is not used and is difficult to launch. This was observed with a kiosk whose location, due to land constraints, was placed behind the target group of households. Sales growth is significantly slower than for a kiosk placed well in line with the houses, which generally have only one opening.

### Box #4: placing kiosks away from distribution lines



Typical behavior of households in an area with disparities in distance to the pipes: households closest to the pipes connect first (red dots) and households further away have no access to the service.

Placing kiosks along the pipes is not a good strategic choice. Plan with the kiosks a length of pipe to target households far from the pipes.

In order to minimize costs, kiosk budgets were determined so that kiosks were placed near distribution lines. However, these kiosks had difficulty acquiring the expected sales. Placing the kiosks near the mains puts them in direct competition with the private connections instead of complementing the connections. Since the cheapest connections to install are those closest to the pipes, in cases where the connections have already been installed on the site, the likelihood is that they will be placed along the pipes. Installing kiosks at these sites is generally irrelevant to households directly adjacent to the kiosks and may limit the willingness of households to acquire connections even if they are close to the pipes. A distance of 150 meters from the pipes appears to be the best compromise (empirical data), as at this distance very few households can acquire a particular connection.

**Box #5: The actual distance of use of a kiosk is variable depending on the opportunity it represents.**



Area covered by a kiosk after household census:  
56900m<sup>2</sup>.

The nearest water source is more than 250 meters from the kiosk, so the service is more advantageous for these households.

Areas covered respectively of : 3648m<sup>2</sup> and 9618m<sup>2</sup>

Direct competition is important, reducing the opportunity of the kiosk to these small groups.

Three kiosks set up under different conditions were able to perform fairly quickly up to the target turnover (5000ar per kiosk per day). Two of the kiosks were located in a densely populated area and the other in an area with a scattering of households. The commonality is that the competition for the kiosks is at a greater distance from the household, but the order of distance is 25 meters for one kiosk and 200 meters for the other kiosk. Each kiosk must therefore be positioned according to the trip reduction opportunity it

represents for its users. In the end, the carrying distance parameter is not decisive, only the distance between the competition counts for the household.

During the launch phase of the kiosk, the business model was adapted in such a way as to adopt an approach based on a community management mode that people are familiar with but with a paying system.

Like any community-based management even with the paid component, it is necessary :

Identify and define the group involved, the group leader and a parts manager to operate the kiosk,

Not to engage any form of remuneration for the local manager because the management action is financially viable only from a critical mass of several kiosks: several scenarios have been considered but the profitability for the parts manager is not possible with the turnover of the simple group of households which he is in charge of. Moreover, the manager is generally a volunteer and acts out of duty or recognition or just to ensure his own access to the service,

Anticipate the potential causes of differences between households to reduce the risk of exclusion,

It is also important to involve households in motivating others to use the kiosk, the most motivated encourage the less motivated

In conclusion, the evolution of the business model of MANAMPY CORPORATION tends largely towards a hybrid model between community inclusion model but with a technological service of maintenance and financial viability of the service.

## ANNEX 39. IMPLEMENTATION STEPS FOR THE EXTENSION OF THE WATER SYSTEM MANAGED BY JIRAMA IN ANTANIFOTSY



## ANNEX 40. FINAL REPORT CUSTOMER SURVEYING AN ACCOUNTABILITY MECHANISM



### RANO WASH RESULTS BRIEF

June 8<sup>th</sup>, 2022

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*Abstract: This study focuses on customer satisfaction as an accountability mechanism and asset management tool to improve the management of RANO WASH systems. The project's primary research objectives are to develop a tool that allows water operators to continuously measure customer satisfaction and increase the understanding of customer needs related to water service provision. The study involved the development of a survey based upon key aspects of service delivery according to customers. A novel surveying system was used to deploy the survey, where water operators survey customers when they come to the office to pay their bills using the open-source [mWater](#) mobile application. An analysis was conducted using the collected satisfaction data to highlight areas for improvement and key determinants of customer satisfaction. The study also assessed how customers utilize current accountability systems to voice complaints and the level of understanding of customer needs on the part of the water operators. The final step of this study is to report the results to the water operators, customers, and RANO WASH staff to provide these stakeholders with additional information to make decisions about their water services.*

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#### I. RATIONALE

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Most WASH monitoring tools available in low and middle-income countries (LMICs) are designed to inform progress indicators used by donors and national governments. As a result, there is a lack of progress monitoring tools designed to support water service providers' decision-making, despite the need for improved sustainability of water provision at the local level. Madagascar is no exception to this global trend, and the need for continuous, decentralized WASH monitoring and accountability tools has been identified both by RANO WASH staff and through research done by Ermilio (2018) on the sustainability of Malagasy public-private partnership (PPP) water systems [1].

Building off the previous research, this study focuses on developing tools for water operators to measure and monitor customer satisfaction. Because customer satisfaction has been shown to impact the financial sustainability of water services directly, it is a key metric for water system performance and sustainability [2]. Measuring customer satisfaction through surveying provides information to water operators about system performance, empowers customers to participate in the monitoring of their systems, and increases accountability and communication between system stakeholders.

This study was conducted by the Center for Humanitarian Engineering at Villanova University in partnership with Catholic Relief Services to support the RANO WASH project. The study's primary objective was to develop and pilot a tool to allow water operators to continuously measure customer satisfaction, increasing understanding of customer needs as it relates to water service provision.

## 2. METHODOLOGY

The following steps were taken by the research team from Fall 2021 to Spring 2022 to complete this study:

1. Identification of key service quality dimensions using customer complaints from previous surveys and a comprehensive literature review on questions used to assess customer satisfaction in similar studies, following methodology in Hayes (2008) [3].
2. Develop a customer satisfaction survey with eighteen questions about customer satisfaction with the service provided, rated on a Likert scale of 1 – 5 (very unsatisfied/strongly disagree to very satisfied/strongly agree). Feedback on the survey was provided from the intern team, RANO WASH staff, and water operators to ensure clarity of questions.
3. Selection of four RANO WASH systems for the study by RANO WASH staff. The systems selected were in the following communes: Sabotsy Anjiro and Anosibe Ifody in Moramanga, Ilaka Est in Vatomandry, and Mahatsara in Brickaville.
4. The intern team will train water operators over the phone and in person to teach water operators how to use the mWater mobile surveying application and deliver the survey to customers using tablets provided by RANO WASH.
5. Deployment of the survey by water operators when customers visit the WSP office to pay their monthly water bills over one month.
6. Data analysis to determine which service quality dimensions are the most important to customer satisfaction, identify areas for improvement, and assess accountability mechanisms.
7. Reporting results to water operators, the water system customers, and RANO WASH staff by creating an online mWater dashboard for each system, printing the results for the community and WSP to view, and presentation/technical briefings for RANO WASH staff.

## 3. RESULTS

### 3.1 Response Overview

In total, 157 responses were collected over one month of survey deployment at the four systems involved in this study. In *Table 1*, the number of responses is compared to the number of active private connections in the system and the total from all four systems. It is assumed that the responses only come from customers of private connections and that each respondent represents the opinions of those in the household using the private connection. Therefore, the surveying captured the opinions of about 17% of customers using private connections across the four systems.

**Table 1: Number of survey responses compared to the number of private connections.**

Commune	Private Connections	Number of Responses	Proportion of Private Connections Represented
Sabotsy Anjiro, Moramanga	247	35	14%
Anosibe Ifody, Moramanga	352	89	25%
Ilaka Est, Vatomandry	184	13	7.0%



Commune	Private Connections	Number of Responses	Proportion of Private Connections Represented
Mahatsara, Brickaville	134	20	15%
<b>TOTAL</b>	<b>917</b>	<b>157</b>	<b>17%</b>

Several pieces of demographic information were collected from respondents, including their gender, age, and household size, as shown in *Table 2*. About half of the respondents were female with an average age of 46, about middle-aged. The average household size is about five people.

**Table 2: Summary of the demographic information about respondents from the survey.**

Commune	% Female Response	Average Respondent Age	Average HH Size (people)
Sabotsy Anjiro, Moramanga	67%	40	4.77
Anosibe Ifody, Moramanga	56%	48	5.19
Ilaka Est, Vatomandry	38%	43	3.85
Mahatsara, Brickaville	45%	48	5.10
<b>AVERAGE</b>	<b>56%</b>	<b>46</b>	<b>4.97</b>

### 3.2 Average Satisfaction Ratings

To summarize the satisfaction results from each system, each response was assigned a value of one to five where: 1 = very unsatisfied/very poor, 2 = unsatisfied/poor, 3 = neutral/okay, 4 = satisfied/good, 5 = very satisfied/very good. Each respondent's responses to the customer satisfaction questions were averaged to create one satisfaction rating. The average satisfaction rating provides a way to assess customers' overall satisfaction with the WSP in a single value that can be easily compared across WSPs. The average satisfaction rating is represented as a percentage (or score) by subtracting one and dividing it by four. *Table 3* shows the average satisfaction ratings for the four systems.

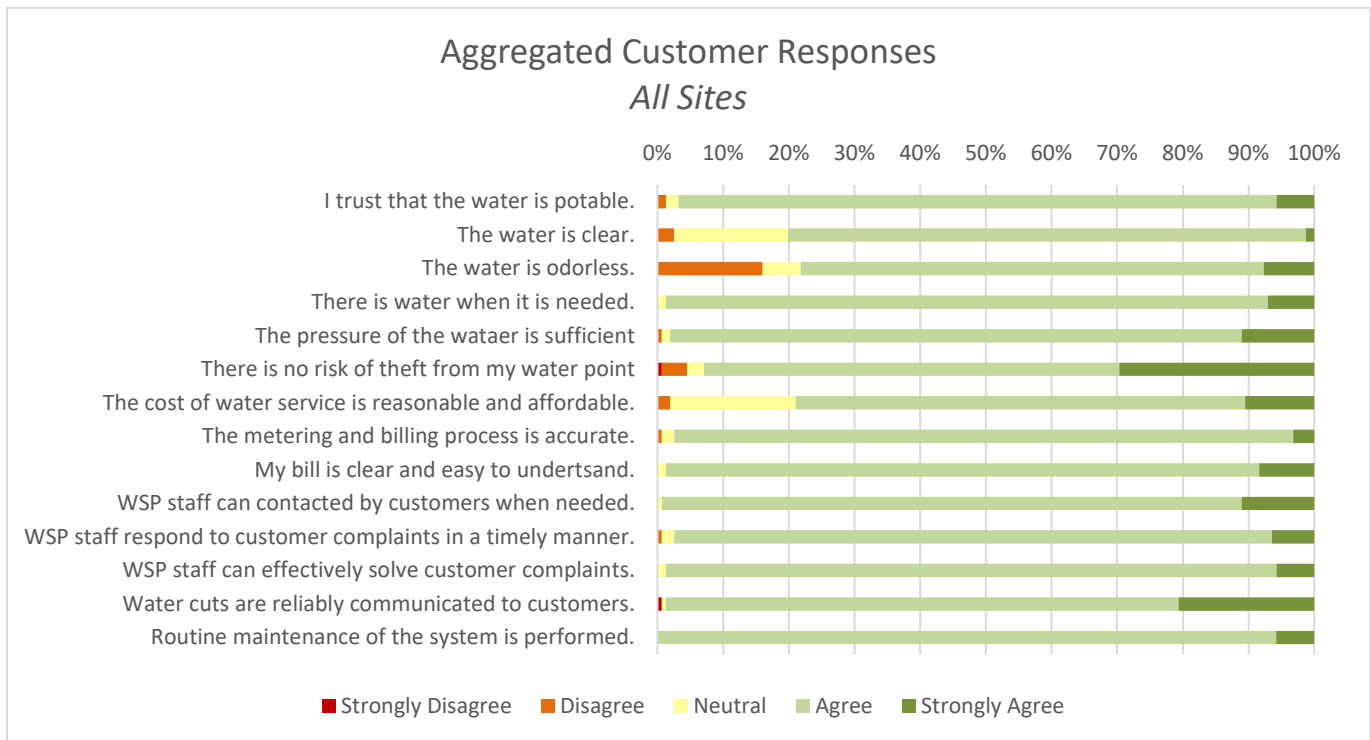
The average response across all systems was 4.11 out of 5. This indicates that overall, customers are satisfied with the service they receive across the four systems. The system with the highest average satisfaction score is Ilaka Est with a score of 4.42, and the system with the lowest score is Sabotsy Anjiro with a score of 3.90. The standard deviation for the average response ranges from 0.11 to 0.22 across the systems.

Table 3: Average satisfaction rating and scores.

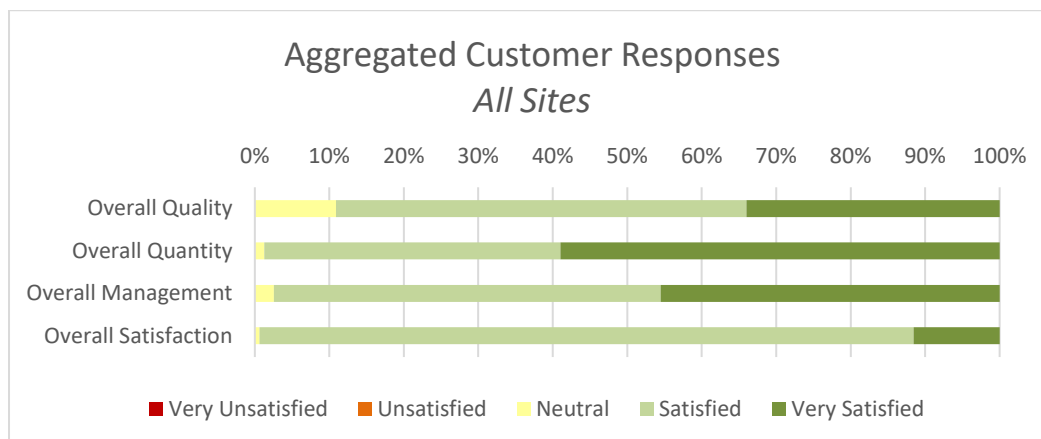
Commune	Average Satisfaction Rating	Standard Deviation	Score
Sabotsy Anjoro, Moramanga	3.90	0.17	72.5%
Anosibe Ifody, Moramanga	4.05	0.11	76.3%
Ilaka Est, Vatomandry	4.42	0.22	85.5%
Mahatsara, Brickaville	4.08	0.12	77.0%
<b>AVERAGE</b>	<b>4.11</b>	<b>0.22</b>	<b>77.8%</b>

### 2.3 Disaggregated Satisfaction Results

In Figure 1 and Figure 2, the survey results for all systems are disaggregated by the statement. Customer disagreement is significant on water quality dimensions (trust in potability, clarity, and odor of water). Conversely, customers felt their water service provision met water quantity dimensions (water availability and pressure). This is reflected in the fact that about 60% of customers are very satisfied with the water they receive. Within the management dimensions, some customers disagreed that the cost of the water was affordable and their water point was secure from theft. Nearly all customers agreed or strongly agreed that water cuts were reliably communicated to customers, indicating that water operators consistently communicate water cuts to customers.



**Figure 1: Disaggregated customer responses by question.**



**Figure 2: Disaggregated customer satisfaction ratings.**

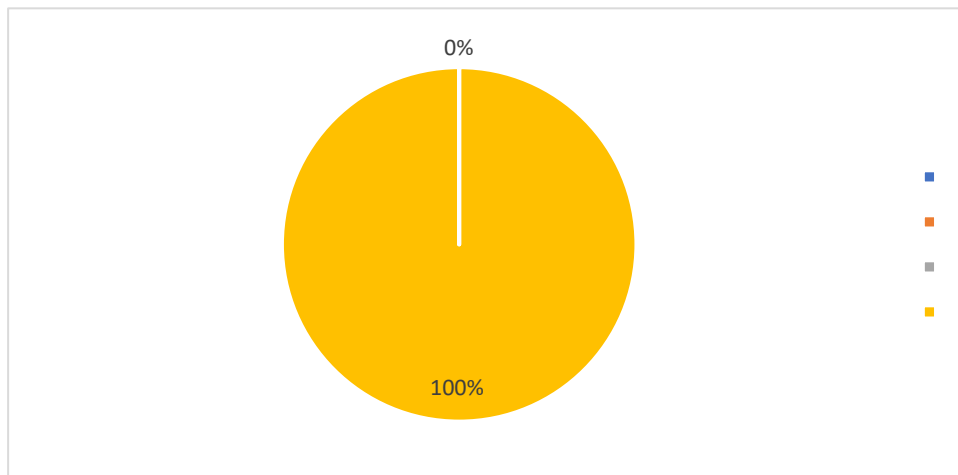
**2.4 Identification of Service Dimensions Most Important to Customer Satisfaction**

A multiple regression analysis was conducted to determine which factors best predict overall satisfaction. The resulting model included the affordability, bill clarity, and water availability variables and explained approximately 28% of the variability in overall customer satisfaction. However, water availability had an inverse relationship with overall satisfaction in the model.

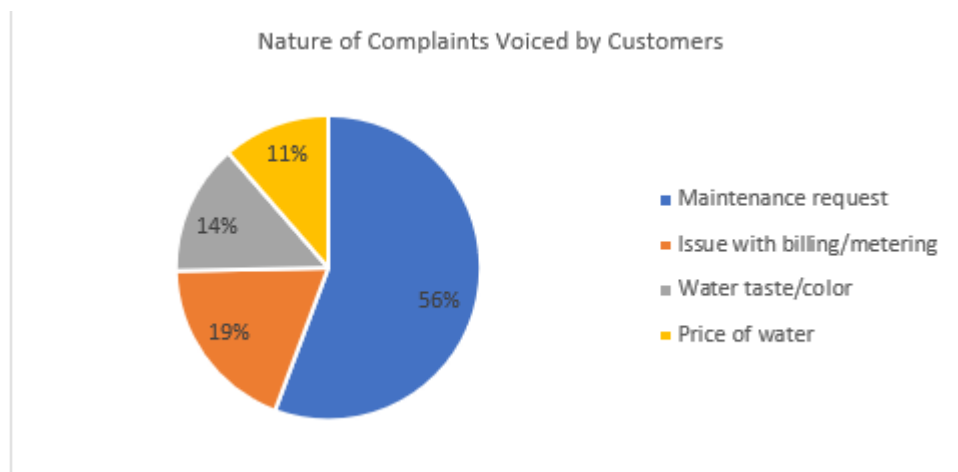
While the relationship between water availability and overall satisfaction was unexpected and did not follow logic, several conclusions can be drawn from the regression analysis. First, the clarity of the survey should be further investigated to ensure that customers understand the questions. Second, water operators should pay close attention to the price of water and the clarity of the bills to ensure that overall customer satisfaction remains high amongst their customers. Third, customer satisfaction indicators are likely system-dependent, so regression analysis should be repeated for individual sites to conclude the primary indicator of customer satisfaction for users of that system if the survey continues to be used in the future.

### 2.4 Existing Accountability Mechanisms

In addition to assessing customer satisfaction, customers were asked how they utilize existing accountability mechanisms to voice complaints. The results shown here are aggregated across all four systems. 23% of customers said that they had formally voiced a complaint previously. The most common complaints were about maintenance, issues with billing/metering, water taste/color, and the price of water, as shown in *Figure 3*. Customers voiced these complaints directly through WSP employees in the community or at the WSP office, as shown in *Figure 4*. This means that they generally are not using (or routinely using) the other available feedback methods, such as comment boxes, community meetings, and the hotline.



**Figure 3: Nature of complaints voiced by customers.**



**Figure 4: Mechanisms used to voice complaints.**

The time it took for the WSPs to address customer complaints was generally quite low, only one day for most complaints, as shown in *Figure 5*. This indicates that water operators are very responsive when complaints are made and can effectively resolve them promptly. This is also reflected in the customer satisfaction survey results, where customers agreed that staff responded to complaints on time and could perform repairs effectively.

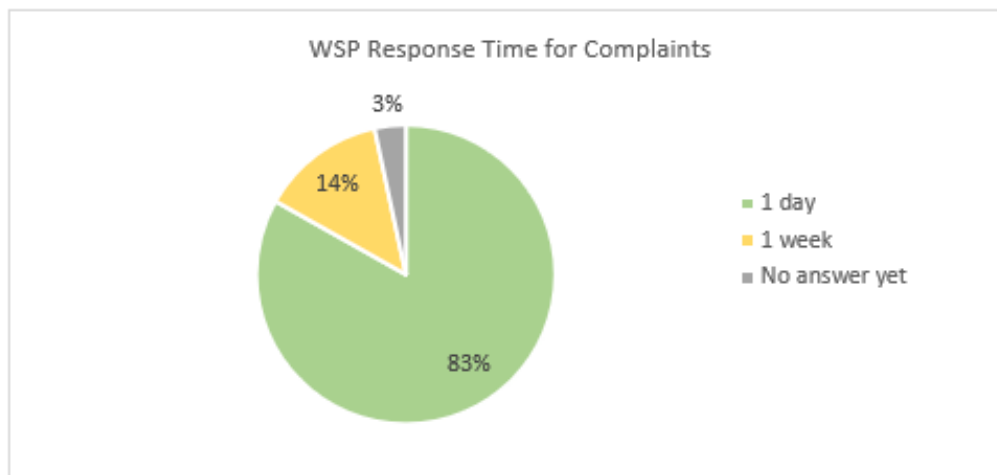


Figure 5: Time for WSPs to respond to complaints.

#### 4. CONCLUSIONS

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In conclusion, the customer satisfaction data collected from the four systems showed that customers are generally satisfied with the water service they receive. However, customer responses highlighted the need to continue to improve service across the water quality dimensions (trust in potability, clarity, and odor of water). The responses also highlighted areas where WSPs are exceeding customer expectations, such as water quantity dimensions (water availability and pressure) and the communication of water cuts.

The assessment of accountability mechanisms used by stakeholders at these four systems showed that customers are not using the more formal accountability mechanisms, such as the hotline, idea box, or community meetings, and are largely contacting WSP staff directly with complaints. Why this is the case requires further investigation. However, it may indicate the need for another formal accountability mechanism, such as customer satisfaction surveying. Customers that had issued complaints reported that the WSPs are very responsive to them, indicating that WSPs have effective systems to handle complaints.

Finally, survey results analysis and water operator feedback showed that the customer satisfaction survey and surveying system effectively provided water operators with an additional asset management tool and increased communication between water operators and customers. The analysis and feedback also highlighted several changes that should be made to the survey and surveying system. Despite this, the system proved to be a useful tool for water operators. It should be applied at other systems and/or for longer periods to better understand customer satisfaction. Moving beyond just customer satisfaction, there is significant interest from involved water operators in using mWater surveys and dashboards to monitor other aspects of their systems.

## 5. ACKNOWLEDGEMENTS

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*Thesis Advisors:*

- Dr. Jordan Ermilio
- Prof. Iain Hunt

*RANO WASH Staff:*

- Gerald Raharinatoandro

*Intern Surveying Team:*

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For more information about this study and the results, contact Hannah Brigham at [hbrigham@villanova.edu](mailto:hbrigham@villanova.edu).

## 6. SOURCES

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[1] J. Ermilio, "Sustainable Management of Piped Water Supply Infrastructure in Developing Countries," Loughborough University, 2020.

[2] E. A. Donkor, "Effect of customer satisfaction on water utility business performance," *J. - Am. Water Works Assoc.*, vol. 105, no. 10, pp. E553–E560, Oct. 2013, doi: 10.5942/jawwa.2013.105.0114.

[3] Hayes, Bob, *Measuring Customer Satisfaction and Loyalty: Survey Design, Use, and Statistical Analysis Methods*. ASQ Quality Press, 2008.

## ANNEX 4I. MARKETING STRATEGY SUMMARY

Marketing strategies	Objectives	Description of the offer	Website	Period	Results				Selling points	Remarks
					Number of current stakeholders	Number of pending connections	Number of connections installed	Trend of requests by month		
Beginning of operation: AX+B (meter rental) and kits provided by RANO WASH	-Allow a revolving fund for the acquisition of new connection kits - Facilitate access to the connection through a monthly payment		Ivato Center	January - May	138	113	72	30	Awareness and information of beneficiaries on the five layers of WASH products: water potability, proximity, comfort, quality of service, social status (self-esteem) - Community meeting: price comparison - Campaign: VAD  - Promotional prize - Payment facility - Awareness of VOAMAMI group members to borrow from their groups to get	Better efficiency of the offer in the recent systems for 2 apparent reasons: - easily identifiable demand for the company because almost all the socio-professional layers are demanders of the offer-resources and managers of the company engaged in the continuation of the recently completed works (the resources continue in a dynamic of productivity
		-fixed charge: 95 000 Ar/ 10 ML - variable charge : 4 000 Ar / ML (Pro rata) - payment facility: According to the beneficiaries - meter rental (per month): 2500 Ar	Ambatomarina	January - April	82	42	18	20		
		-Connection cost: 140,450 Ar -Advance to install a connection: 20,000 Ar -Additional cost for each meter of pipe: 3,500 Ar/m -Meter rental (per month) BS: 5,000 Ar, BP: 3,000 Ar until	Androy - Iranjo - Andranolava	December - July	3	5	72	5		

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Marketing strategies	Objectives	Description of the offer	Website	Period	Results				Selling points	Remarks
					Number of current stakeholders	Number of pending connections	Number of connections installed	Trend of requests by month		
		full payment of the connection cost							connected (VOAMAMI contest)	as during the works)
		-cost of connection: 103,600 Ar -advance to install a connection: 20,000 Ar -additional cost for each meter of pipe: 3,500 Ar/m -meter rental (per month): 1,000 Ar -payment of the estimate (per month) BS: 5,000 Ar, BP: 3,000 Ar until payment of the total cost of connection	Andrainjato-Mahatsinjony - Tsiakary	March - July	6	48	49	40	- Promotional price until June - Secondary driving allowance for villages with group registrations of 15+ applications - Easy payment	
		-cost of connection: 144,600 Ar-advance to install a connection: 10,000 Ar-additional cost for each meter of pipe: 3,500 Ar/m-payment of the estimate (per month): amount fixed between the customer and the IGC for a period of 12 months	Mitongoa-Tambohonienjanina-Savahaonina	March - July	37	2	19	50	- Promotional price until June- 12 months payment facility- Possibility of developing IGAs through the possession of	



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Marketing strategies	Objectives	Description of the offer		Website	Period	Results				Selling points	Remarks
						Number of current stakeholders	Number of pending connections	Number of connections installed	Trend of requests by month		
										a connection (tobacco watering, vegetables and duck breeding, pig)	
<b>Start of operation: payment facility and kit allocations by RANO WASH</b>		-cost of connection: 157 550 Ar and 110 000 Ar for less than 12 m-advance to install a connection: 1/3 of the cost-additional cost for each meter of pipe: 3 200 Ar/m -payment of the estimate in 2 installments during 2 months	Mangabe-Ambalambony-Soanamoriana-Andranovorivato	March - July	0	2	3	10	- Promotional prize - Payment facility - Awareness of VOAMAMI group members to borrow from their groups to get connected (VOAMAMI Contest)		
<b>Systems in operation for more than 2 years, choice of:</b>	Facilitate access to the connection with a	<b>1- AX+B (meter rental) and payment facilities</b>	<b>2- payment facilities</b>	Mahatsara and Niarovana Caroline	August 2021	34	11	23		Offer apparently interesting (same profile in sales as for recent	

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Marketing strategies	Objectives	Description of the offer		Website	Period	Results				Selling points	Remarks
						Number of current stakeholders	Number of pending connections	Number of connections installed	Trend of requests by month		
I- AX+B (meter rental) and payment facilities 2-payment facilities	monthly payment	-fixed charge: 40 000 Ar to be paid before connection B= 6300 Ar / month for 5 years	-260 000 Ar in 3 times or-260 000 Ar in 1 time								systems) but smaller market-resources already accustomed to a relatively slow pace of work in the operational phase and hardly follow the work requirements of sales Offer is as effective as for other newly built systems but remains limited in deployment (indicator: number of interested parties significantly lower than for new systems)
Systems in operation for more than 2 years, AX+B (meter rental)	Facilitate access to the connection through a monthly payment	Payment by instalments		Beforona	September - present	10	9	1	11		
				Sabotsy, Anjiro, Ambodimanga	September - present	53	13	40	10		
				Tanambe	September - November	42	3	39	8		
Lower installation costs				Ambodinifody, Anosibe Ifody	June - present	12	10	2	2		
					<b>Total</b>	<b>417</b>	<b>258</b>	<b>338</b>			

Marketing strategies	Objectives	Description of the offer	Website	Period	Results				Selling points	Remarks
					Number of current stakeholders	Number of pending connections	Number of connections installed	Trend of requests by month		
<p>- Turning interested requests into installed connections remains a challenge for the CMIs, as does installing the backlog of connections. (For both categories)</p> <p>- There is an average trend of 19 service connection requests per month per site. -</p> <p>The sales arguments are better developed for the sites in the early stages of operation -</p> <p>The support needed is mainly based on the operationalization of marketing strategies. (The rich periods (for each site) are the recommended periods for the realization of marketing campaigns. -</p> <p>The marketing strategy of AX+B (meter rental) is the most effective one, which is widely visible in the case of Ivato Centre for example, but the same profile for the other sites -</p> <p>The least effective marketing strategy is that of easy payment, as in the case of Mangabe (Ambalambony-Soanamoriana-Andranovorivato). Fixed monthly payments are much more attractive than payment of estimates in several installments or a simple reduction in the cost of installation (case of Ambodinifody- Anosibe Ifody).</p>										

## ANNEX 42. EXAMPLE OF COVERAGE OF WATER SERVICES Company RANON'ALA B in Anosibe Ifody, Alaotra Mangoro

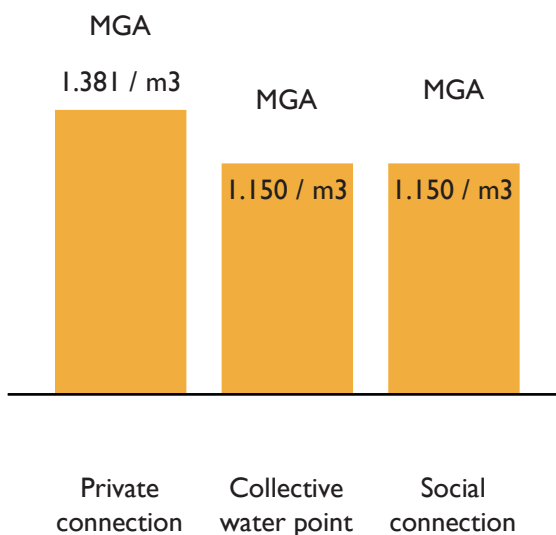


Villages and fokontany covered: 1-  
 Ambodinifody  
 2-Andriaka  
 3-Ambodirano  
 4-Ambalahorona  
 5-Anosibe Ifody

Water system operational from:  
 December 2019

Target population: 4226 People  
 using the services: 3467  
 (End of March 2022)

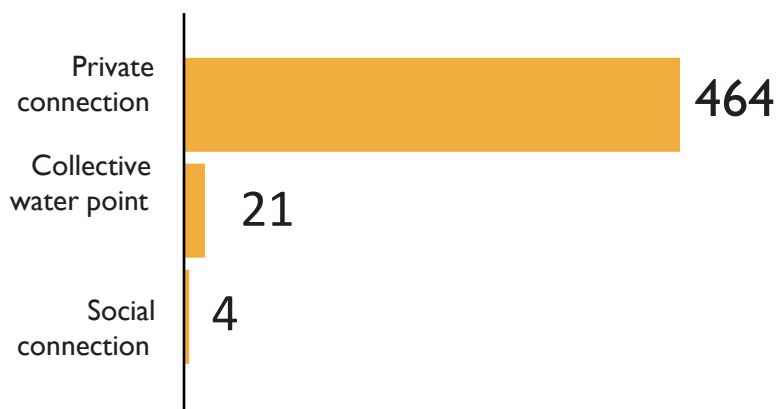
Water services cost:



**5** Total number of Fokontans of Anosibe Ifody  
**2** Number of Fokontany covered by the services



Water connections number:



In the Commune of Anosibe Ifody:

- Extension of services in the Fokontany of Tsarafasina: 60% completion of extension works
- Upgrading of water services in the Fokontany of Tsaramiafara with the Mada Spring Company under negotiation

So four fokontany out of five after three years of operation

In the Alaotra Mangoro Region:

Following the Regional Fair and the search for partnership by the Mayors of the Communes, RANON'ALA B has accepted the proposals made by four Communes. The advances vary as follows:

- Commune of Mandialaza: APD made by RANON'ALA B, Financing Contract signed between the Commune, RANON'ALA B, Fanamby, and RANO WASH, Environmental Impact Study submitted to ONE.
- Commune of Andaingo: APD carried out by RANON'ALA B, search for co-financing in progress
- Commune of Ampasikely: APD carried out by RANON'ALA B, search for co-financing in progress
- Commune of Ambatosoratra: analysis of the situation in progress before the in-depth study.

## **CHALLENGES:**

- The search for co-financing depends a lot on the dynamism of the communal leaders
- The degradation of the watershed already impacts the water flow: RANON'ALA B requires the Communes commitment to set up and apply laws before it commits to investing in water services there.

## ANNEX 43. ACTION PLAN FOLLOWING THE WASH FAIRS Q4.22

WASH fairs/forums	Sharing of information, follow-up/reminders of expressions of interest from companies	Directed interviews/guided tour of communities	Support for studies	Connecting with financial institutions	Support for the preparation of financing applications	Follow-up of the financing obtained by the companies	Support for delegation contracting	Training, support for the realization of the work	Support to the operation
91 municipalities interested in the transition to private management, presented to private companies at 4 water fairs	50 letters of application submitted to the municipalities	6 communes in the Amoron'i Mania region were visited by several interested companies, several companies interested per commune	<p>ALM: studies completed and returned to 4 communes (Mandialaza, Andaingo, Amboasary Gara, Ambohitrarivo, Ambatosoratra)</p> <p>VKN: studies completed and presented to communes in 3 communes (21 systems)</p>	1 workshop organized with 9 companies linking interested companies at the fairs and the Fihariana and SME Business Linkage Program	The files submitted to the German Embassy and to the FIHARIANA program were not successful, although SUNREF's file is being processed by its bank MCB Madagascar, and Zanak'Ampielezana's file has been funded.	<p>Multi-actor financing of works in the commune of Mandialaza, in progress and followed up with the commune</p> <p>"Ese MICKAEL has already had the financial support of Bank of Africa (BOA) bank in the amount of 100 million Ariary to invest in the development of the four ongoing worksites.</p>	<p>Bids submitted to municipalities for HTM, ALM, in the process of finalizing contracts 5 municipalities</p> <p>A new notification for the bidder of SENDRISOA and NAMOLY by the DREAH 1 rehabilitation work already in progress, 3 works in progress</p> <p>The Minister notified all DREAHs that the signing of the management delegation contracts should be approved by the Ministerial Council</p>	1 rehabilitation work in progress, 3 works in progress The start-up meetings were held last September	
HTM	HTM	HTM	HTM	VKN	HTM	HTM	HTM	HTM	

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WASH fairs/forums	Sharing of information, follow-up/reminders of expressions of interest from companies	Directed interviews/guided tour of communities	Support for studies	Connecting with financial institutions	Support for the preparation of financing applications	Follow-up of the financing obtained by the companies	Support for delegation contracting	Training, support for the realization of the work	Support to the operation		
2 water business fairs organized	5 /7 municipalities having received an official letter of interest from 7 companies	5 visits organized in 5 municipalities visited with 4 companies	5 municipalities with detailed studies after 6 companies	2 companies put in touch with suppliers and financial institutions	Funding applications prepared with the companies and sent to potential donors (4 potential donors including MNP, German Embassy and Programme Fihariana, Zanak'Ampielezana)	1 enterprise financed by own funds, (Mickael, assembly of execution file) 64 045760 AR	2 contracts in the process of being validated, Notification of the bidder for Sendrisoa- Namoly, Andranomiditra, Ihazoara,	contract of execution of the works for the company Mickael, Miharintsoa			
municipalities presented 9371 potential beneficiaries   1 companies engaged with the municipalities	VKN		VKN	ALM						VKN	ATS
	6 municipalities having received an official letter of interest from 3 companies		VKN	3 municipalities that have been the subject of detailed studies and reported to each municipality concerned and DREAH						9 companies connected with the Fihariana and Business linkage program	VKN
				Multi-actor financing mobilized for the commune of Mandalaza		1 company that mobilized funds for the rehabilitation and management of systems in 3 communes (47,000,000ar), support for the mobilization of alternative resources					
							1 Work contract on own funds signed by the municipality, the WSP and the DREAH				



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<b>VKN</b>		09 visits organized							
22 municipalities presented		municipalities visited by					1 Work contract on own funds signed by the municipality, the Ese and the DREAH		
433 potential beneficiaries		3 companies	<b>AMM</b>		<b>ALM</b>				
88 businesses engaged with municipalities	<b>AMM</b>		6 municipalities have been studied in order to submit technical and financial offers		2 financing files (loan with 20% non-refundable subsidies) already submitted to SUNREF are currently being consulted by its partner bank MCB (File for the Enterprise RANO AN ALA B). With the support of the project, a multi-stakeholder financing file for the commune of Mandialaza, already submitted for financing to FIANARANA, has been rejected for lack of guarantees.		<b>ALM</b>	<b>ALM</b>	
	35 municipalities having received an official letter of interest from 36 companies.  Commune of BELAVABARY						1 contract signed (Mandialaza), 3 under evaluation by the communes	Beginning of deployment on site by the company for the preliminary works (Mandialaza)	

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	is newly in the race								
		<b>AMM</b>			<b>VKN</b>				
		12 visits in 7 municipalities by 7 companies			1 company supported in the assembly of financing files for the commune of Antanifotsy, Ese NATURANO for 3 communes of the District of BETAFO (Mandritsara-Alakamisy Anativato-Soavina)				
				<b>ATS</b>		<b>ALM</b>			
			<b>ALM</b>	5 communes linked with a private donor to finance WASH projects (Ambatovy), collaboration in progress		Support to the municipality in monitoring the implementation of the funds paid to the company by the different actors. Beginning of the implementation of the funds collected	<b>VKN</b>	<b>VKN</b>	
<b>AMM</b>	<b>ATS</b>	<b>ATS</b>	6 municipalities that have been studied for the submission of bids or funding applications	(3 for sanitation projects and 2 for drinking water projects) only drinking water projects will be prioritized by Enterprises			3 contracts in the process of being signed by WSPs, DREAH, Communes after evaluation by the communes	Start of work in preparation	
06 municipalities presented20,	14 municipalities of interest19	3 visits by 3 companies in 5 municipalities			<b>ATS</b>	<b>ATS</b>			

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WASH fairs/forums	Sharing of information, follow-up/reminders of expressions of interest from companies	Directed interviews/guided tour of communities	Support for studies	Connecting with financial institutions	Support for the preparation of financing applications	Follow-up of the financing obtained by the companies	Support for delegation contracting	Training, support for the realization of the work	Support to the operation
915 potential beneficiaries05	companies and partners, 8 municipalities having received letters of interest from 5 companies				3 companies from 3 municipalities were supported in the development of the business model.	2 WSPs among the three will be financially supported by Ambatovy			
companies involved with the municipalities						1 WSP is financing the work with its own funds			
		<b>ALM</b>							
		8 visits in 6 municipalities by 3 companies					<b>AMM</b>		
			<b>ATS</b>					Notification of the bidder for the commune of TSARASAOTRA and AMBOSITRA II. Recommendations were addressed to the two bidders in relation to their offers	
			3 municipalities that have been studied by 3 potential partner companies						
<b>ATS</b>	<b>V7V</b>								
18 municipalities presented25	2 municipalities having received an official letter					2 WSPs plan to mobilize their own funds			

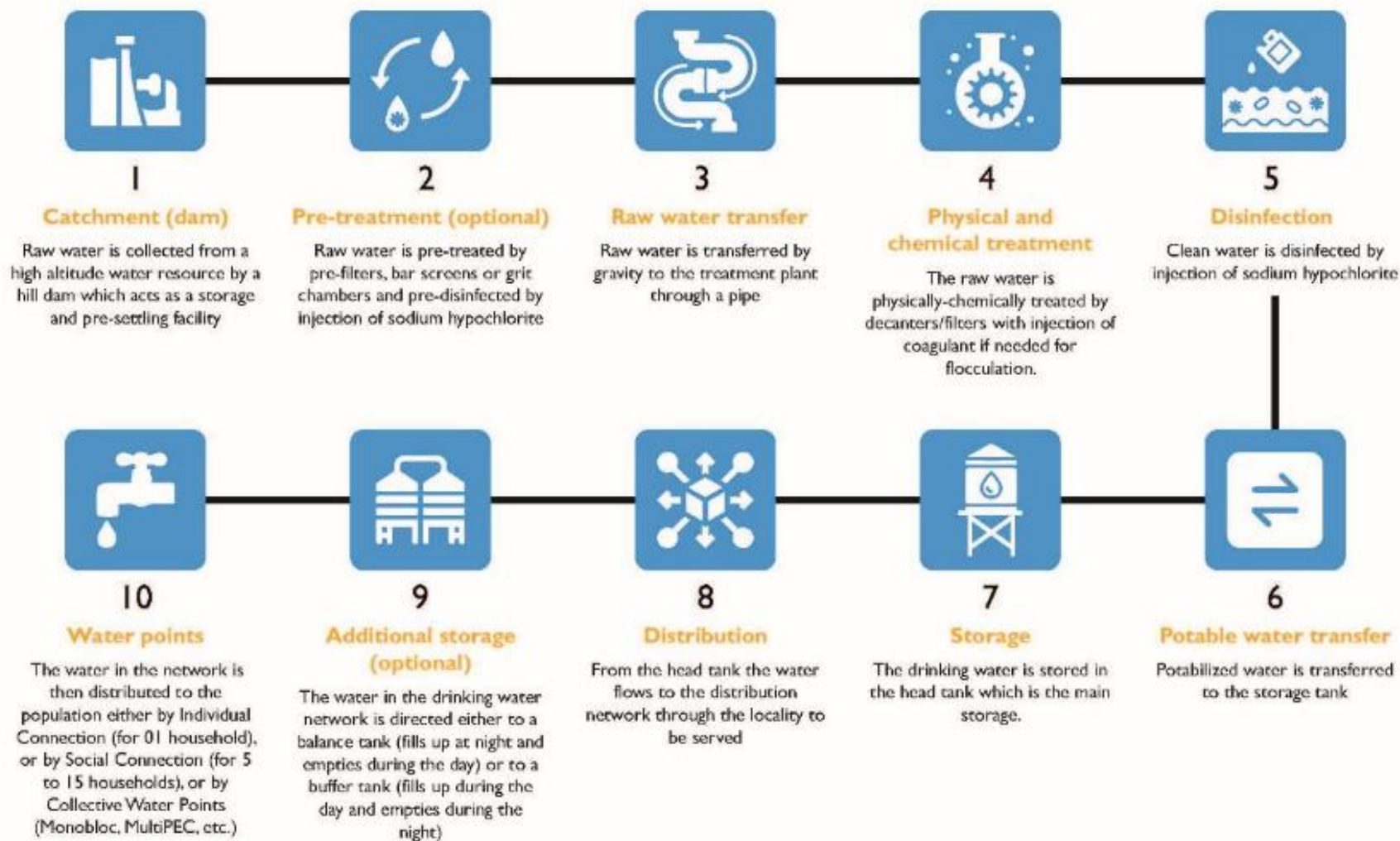
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WASH fairs/forums	Sharing of information, follow-up/reminders of expressions of interest from companies	Directed interviews/guided tour of communities	Support for studies	Connecting with financial institutions	Support for the preparation of financing applications	Follow-up of the financing obtained by the companies	Support for delegation contracting	Training, support for the realization of the work	Support to the operation
<p>115 potential beneficiaries10 companies involved with the municipalities</p>	<p>of interest from 2 companies</p>								
	<p><b>ALM</b></p>								
<p><b>VTV</b></p>									
<p>02 municipalities presented6 944 potential beneficiaries01 company involved with the municipalities</p>									

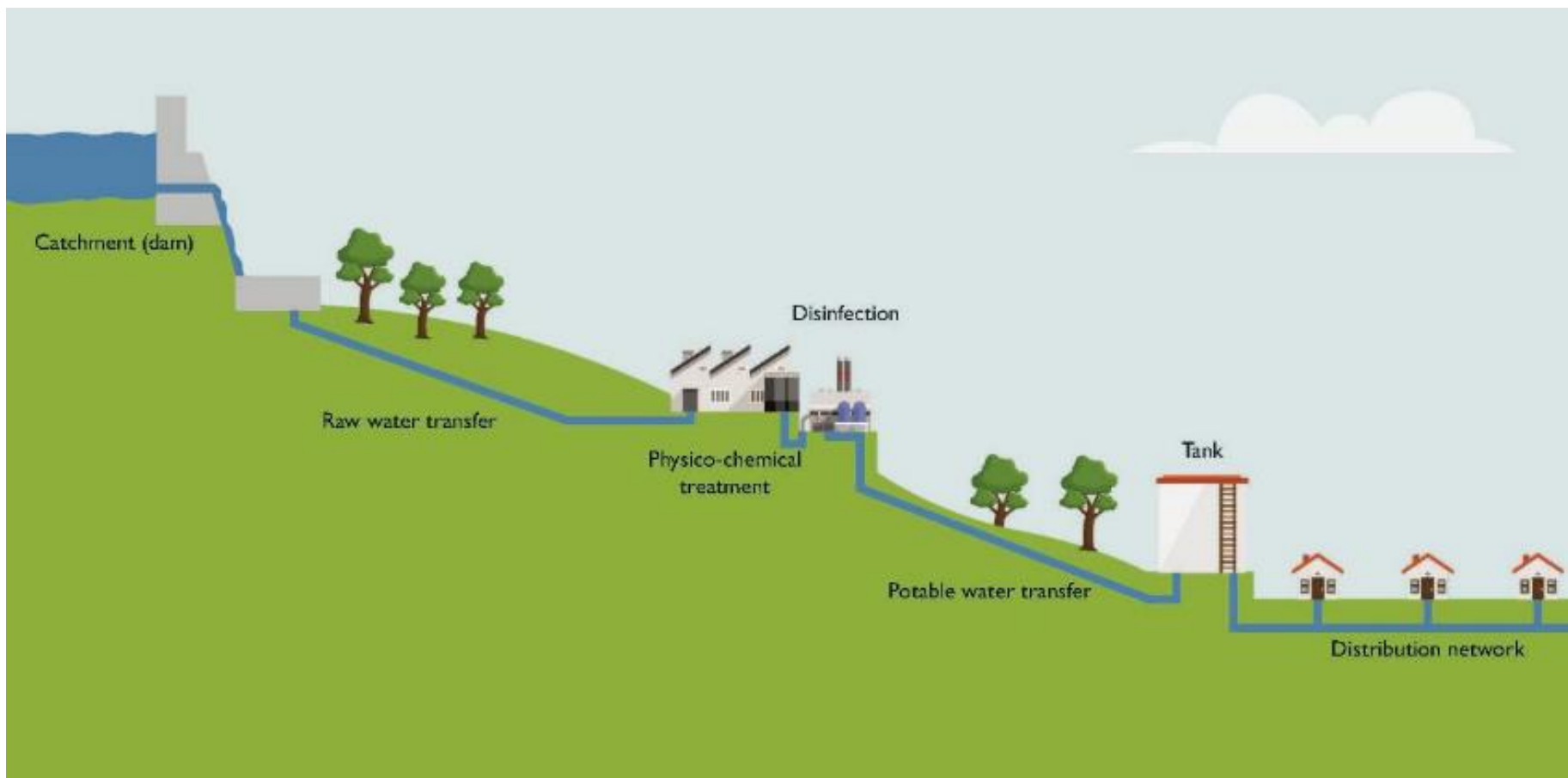
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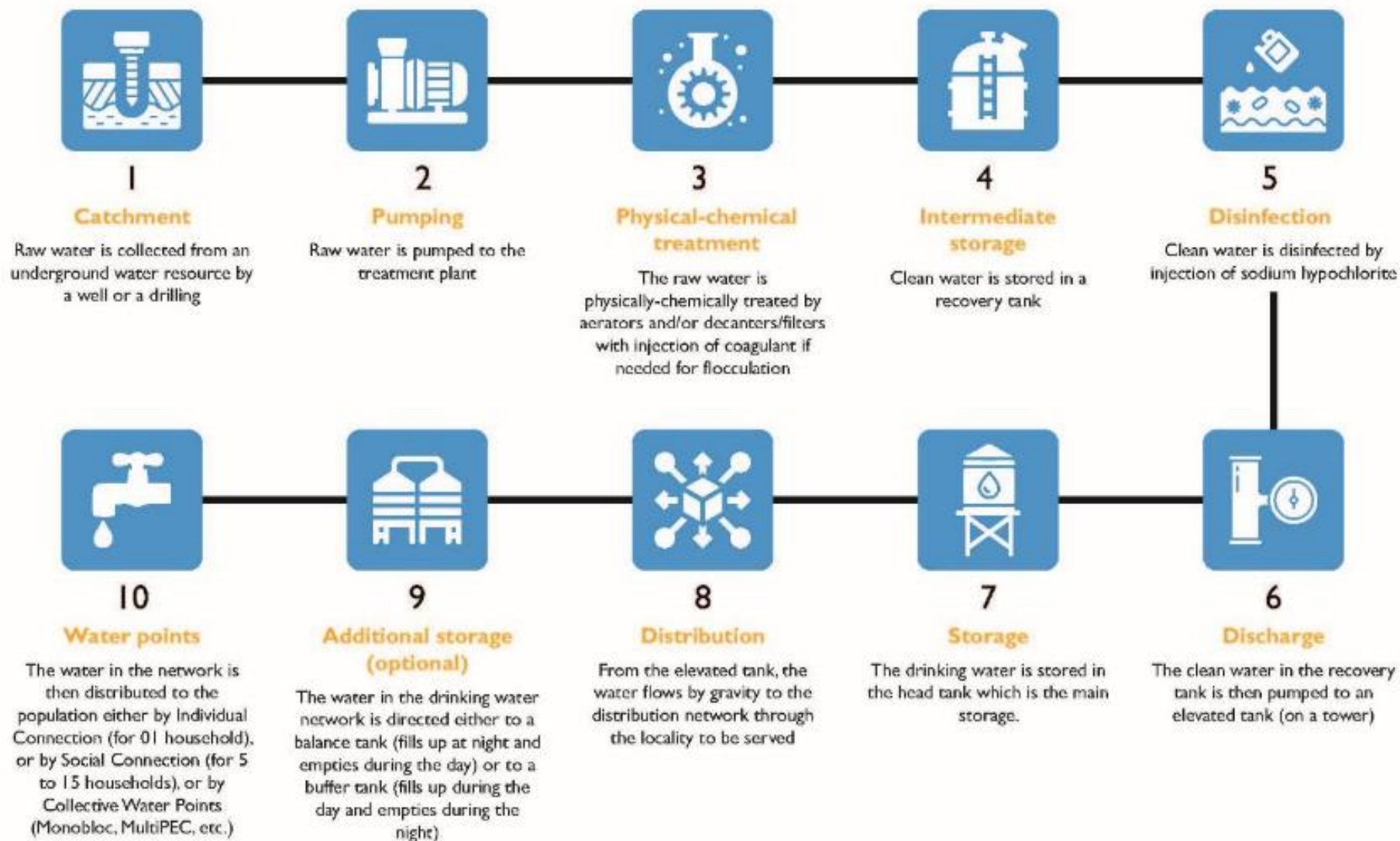
WASH fairs/forums	Sharing of information, follow-up/reminders of expressions of interest from companies	Directed interviews/guided tour of communities	Support for studies	Connecting with financial institutions	Support for the preparation of financing applications	Follow-up of the financing obtained by the companies	Support for delegation contracting	Training, support for the realization of the work	Support to the operation
<b>ALM</b>									
36 municipalities presented 44,849 potential beneficiaries 13 businesses engaged with municipalities									

## ANNEX 44. WATER TREATMENT PHASES IN A WATER SUPPLY SYSTEM



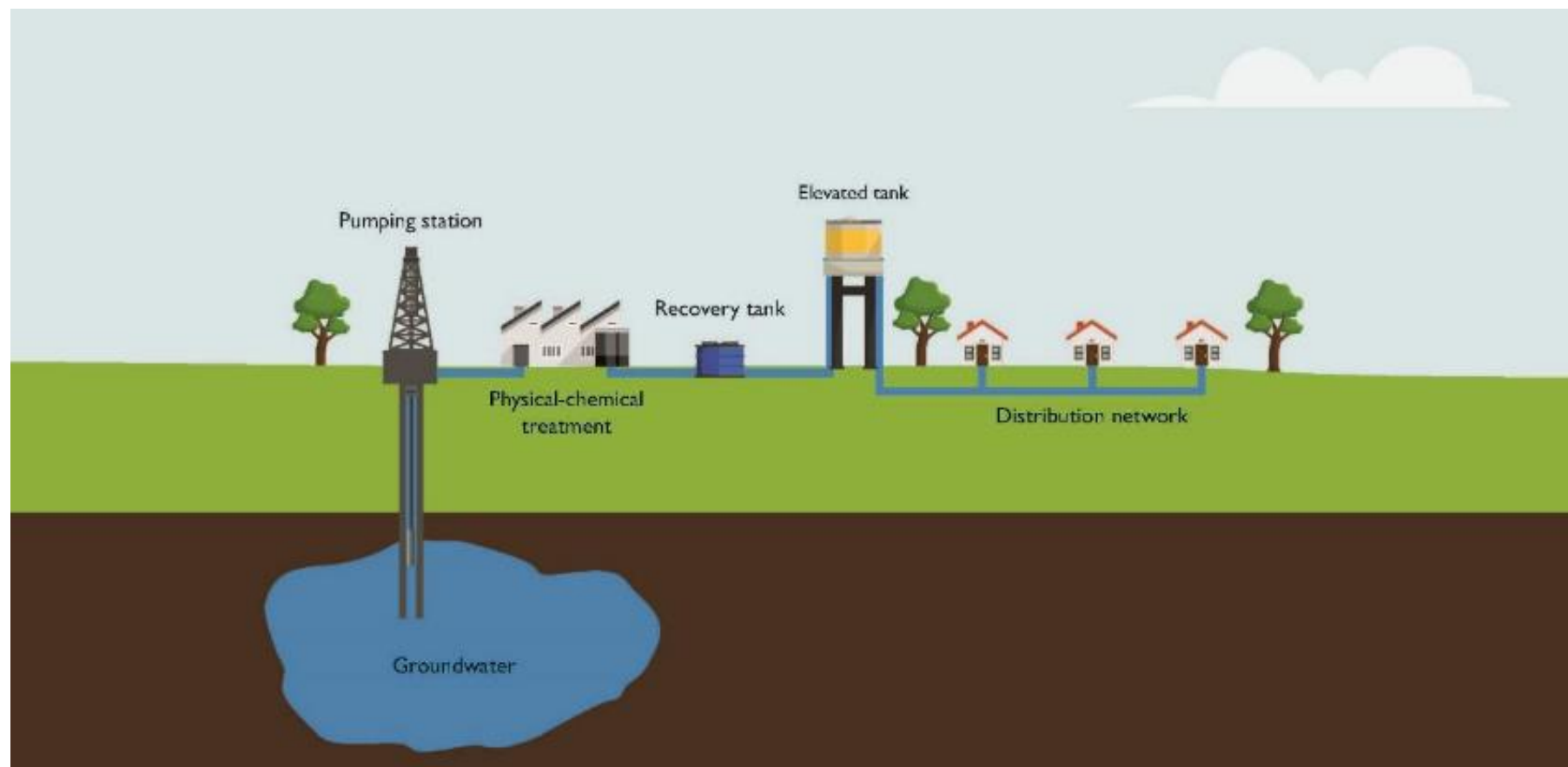
### GRAVITY WATER SUPPLY SYSTEM



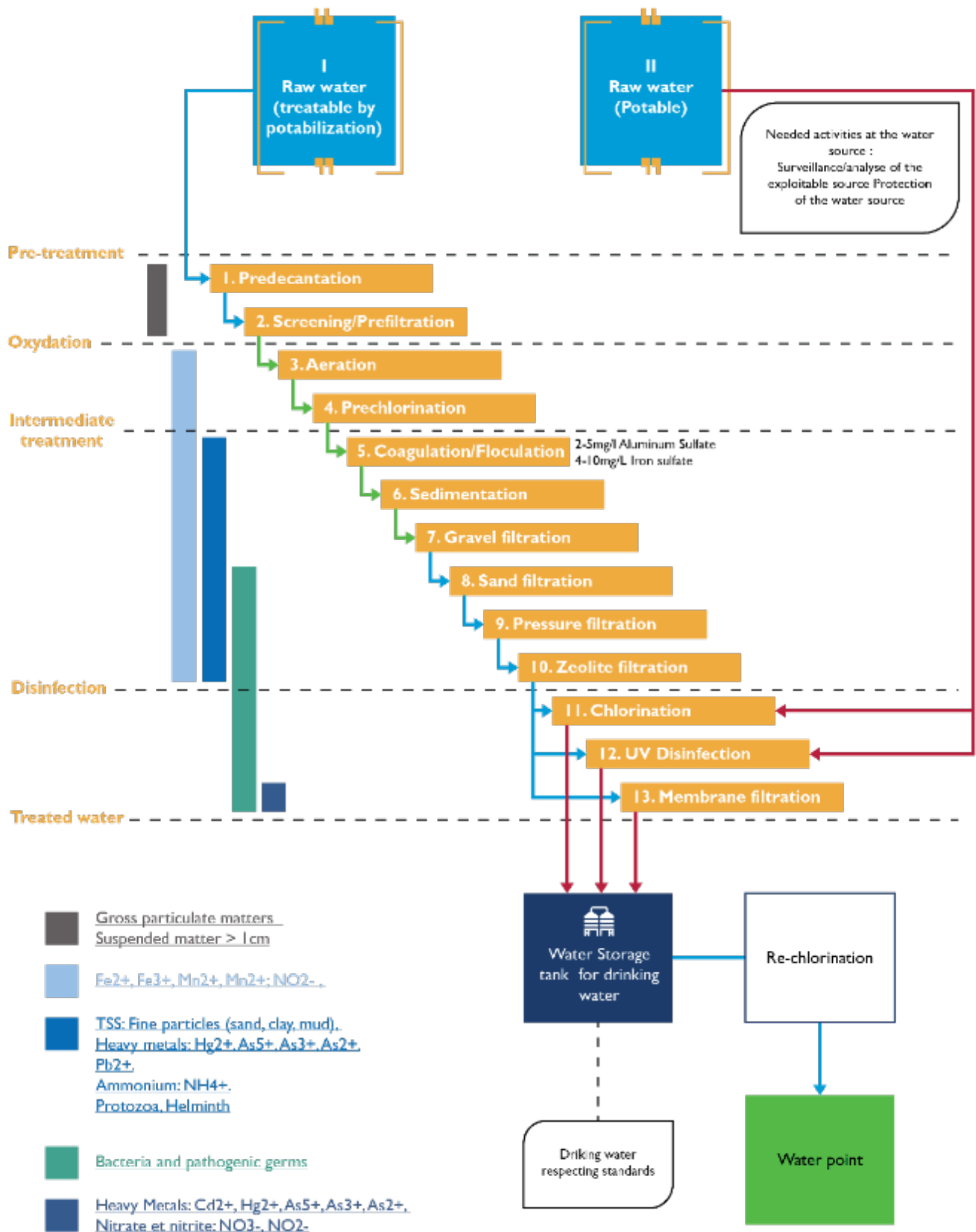




**PUMP FED WATER SUPPLY SYSTEM**



## ANNEX 45. WATER TREATMENT PROCEDURES FOR DRINKING WATER SYSTEMS



## Legend and a brief description

This is a flowchart that summarizes the treatment process of water that contains particulates and contaminants. Other treatment processes have been included in the graphic to showcase improved water management even if some of these are not yet adopted by RANO WASH, such as filtration underpressure, UV disinfection, membrane treatment.

**Source Type I:** indicates surface water requiring treatment. The location of each treatment module (i.e. step) depends on the type of pollutant present in the water. The order of steps is as shown in the flow chart. A treatment system does not have to contain all the treatment steps.

**Spring type II:** indicates water that is already potable. The physicochemical and no pathogenic germs constituents of this type of water would be deliberately preserved. No treatment is theoretically necessary. However, a UV disinfection process may be necessary to protect the water from possible infection during its extraction.

**Module 1:** Pre-sedimentation can be observed in the case of surface water, for example a lake, pond, or well. Another example is the hybrid dam in Foulpointe. This process consists partially to separate colloidal matters and suspended solids contained in the water. There is no chemical flocculent added in the water during this step.

**Module 2:** Screening prevents all solids larger than 1cm from entering the system.

**Module 3:** Aeration is a treatment step during which elements such as manganese and iron are oxidized and precipitated. A process of decantation and filtration will retain the precipitates.

**Module 4:** Pre-chlorination is necessary if an aeration system is not feasible in the treatment system. If the manganese and iron content does not decrease sufficiently after pre-chlorination, it can be coupled with the aeration process. This step should be carried out after aeration or before decantation.

**Module 5:** After several jar tests, the content of a chemical additive such as aluminum sulfate or iron sulfate is defined for this treatment module.

**Module 6:** The sedimentation is an important step for waters with a turbidity value  $> 5$  NTU.

**Module 7:** In gravel filtration, the aggregates constituting the filtering mass are between 6mm and 25mm. It's needed in case there are coarse particles  $> 1$ mm in the water.

**Module 8:** Sand filtration is characterized by the following important points. The aggregates constituting the filtering mass are between 0.10mm and 1.6mm. The filtration speed varies from  $0.1 \text{ m}\cdot\text{h}^{-1}$  to  $0.25 \text{ m}\cdot\text{h}^{-1}$ . The height of the filter mass is from 0.7m to 1.5m. The uniformity coefficient of the aggregates is one (1) without exceeding 1.8. The treatment rate is between  $0.1 \text{ m}^3 \cdot \text{h}^{-1} \cdot \text{m}^2$  and  $0.25 \text{ m}^3 \cdot \text{h}^{-1} \cdot \text{m}^2$ . This type of filter can be seen in the JIRAMA Mandroseza treatment plant.

**Module 9:** The pressure filter operates with pressure varying from 4 to 200 bar e.g. cartridge filter, sand filter, or granular medium. For example, the WSS of Ambohijanaka, managed by Sandandrano.

**Module 10:** In the case of zeolite filters, lead, arsenic, iron, zinc, and ammonium, are among the polluting elements that the filter can treat. Here the addition of a chemical reagent is not necessary. The size of the granules is in the order of 0.6 to 5mm, i.e., about 5 microns. This type of filter will soon be added to some RANOWASH systems, in Namorona and Vohitryndry sites.

**Module 11:** Chlorination is a water disinfection process that requires a water quality of <5NTU.

**Module 12:** In cases where the water quality already meets potability standards, UV disinfection can be applied to eliminate the occasional intrusion of microorganisms/pathogens during operation. For example, operations in Andranovelona. This type of treatment requires a turbidimetric water quality of <1.5 NTU.

**Module 13:** Membrane treatment operates under a transmembrane pressure of 0.5 to 80 bar. Treatment flow rate ranges from 10 to 15000L.h<sup>-1</sup> .m<sup>-2</sup> . It is applied to water with turbidity <5NTU.

## ANNEX 46. WATER QUALITY TESTING LABORATORIES

#	Laboratories names	Location of the Lab	Physico-chemical analysis	Bacteriological analysis	Analysis of toxic elements	Analysis of radioactive elements in water	Status	Certification	accreditation	agreement
1	CNRE and LME (Centre National de Recherche sur l'Environnement)	BP 17 39 ANTANANARIVO - <a href="mailto:accueilclientcnre@gmail.com">accueilclientcnre@gmail.com</a> Tel: +261 34 71 994 90 Website: <a href="http://cnre.recherche.gov.mg">cnre.recherche.gov.mg</a>	Yes	Yes			Operational	-	-	-
2	INSTN (Institut National de Technologie Nucléaire)	B.P. 3907- Campus Universitaire, Ankatso 1 0 1 – Antananarivo - Madagascar Tel: +261 20 24 714 03 E-mail: <a href="mailto:instn@moov.mg">instn@moov.mg</a>	-	-	Yes	Yes	Operational	-	-	-
3	URGPGE (l'Unité de Recherche en Génie des Procédés et en Génie de l'Environnement)	Université d'Antananarivo, Laboratoire Thermodynamique Chimique	Yes	Yes	-	-	Not functional	-	-	-
4	BUSHPROOF	Madagascar BP 182, Ivato Aéroport 105 Antananarivo Tél: +261 20 26 253 83 <a href="mailto:madagascar@bushproof.com">madagascar@bushproof.com</a>	Yes	Yes	-	-	Operational	-	-	-
5	ACSQDA (Agence de Contrôle de la Sécurité Sanitaire et de Qualité des Denrées Alimentaires)	Ex Batiment Pharmacie Centrale Premier Etage, Porte 107, Antsaralalana, Antananarivo Tel: +261 20 22 263 25 (injoignable)	Yes	Yes	-	-	Unknown	-	-	-
6	LCM (Laboratoire de Chimie et de Microbiologie)	Nanisana (en face DREN Analamanga), Antananarivo, Madagascar Email: <a href="mailto:lcm.laboratoire@gmail.com">lcm.laboratoire@gmail.com</a> Tel: +261 34 0753 164	Yes	Yes	-	-	Not functional	-	-	-

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#	Laboratories names	Location of the Lab	Physico-chemical analysis	Bacteriological analysis	Analysis of toxic elements	Analysis of radioactive elements in water	Status	Certification	accreditation	agreement
7	Université ASJA (Athénée Saint Joseph Antsirabe)	Tombotsoa BP287, Antsirabe Email: <a href="mailto:asja@moov.mg">asja@moov.mg</a> Tel: +261 34 49 483 19	Yes	Yes	-	-	Operational	-	-	-
8	JIRAMA (Jiro sy Rano Malagasy)	DEXO , DQO JIRAMA, Soanierana, Antananarivo, Madagascar	Yes	Yes (Tana)	-	-	Operational	-	-	-
9	IPM (Institut Pasteur de Madagascar) LHAE	INSTITUT PASTEUR DE MADAGASCAR Lot II R 48 BP 127 Ambatofotsikely B.P. 1274 ANTANANARIVO 101 Tana - Toamasina (Annexe LHAE Toamasina Tel : +261 34 02 540 01 / 02	Yes	Yes	-	-	Operational	-	COFRAC. <sup>2</sup>	-
11	Ranontsika	Laboratoire d'analyse [co][lab] SARL 22 bis rue de Commerce, Ampasimazava, Toamasina 501, Madagascar Tel: +261 34 95 662 01	Yes	Yes	-	-	Operational	-	-	-

<sup>2</sup> COFRAC : Comité Français d'Accréditation

The IPM can provide analysis services in all regions of Madagascar through a mobile team. However, the analysis costs are very high due to the cost of travel and allowances for the agents during the trips.

The government of Madagascar has not yet issued accreditation or approval for laboratories specializing in water quality analysis. The IPM has the accreditation delivered by the COFRAC.

## **PROCEDURES AND CRITERIA FOR AGREEMENT AND ACCREDITATION**

### **○ REGARDING ACCREDITATION PROCESSES**

Accreditation is a recognition of competence attested by peers, i.e. by professionals in the field. However, accreditation can only be done by an internationally recognized entity. The only option for a national laboratory wishing to be accredited is to first meet the requirements for standardization in terms of organization, techniques, procedures... based on an agreed reference (e.g. AFNOR standards) and to have recourse to the recognized entities (e.g. COFRAC).

### **○ APPROVAL PROCESSES**

Approval is a purely regulatory matter. The public authorities issue it. The law 2011-002 on the health code stipulates that the Ministries of Health and Water provide approval. Therefore, it is necessary to specify the procedures for granting this approval and the sharing of responsibilities between the two Ministries.

Accreditation is a qualification that a laboratory can have if it wants to obtain international recognition for its activities and reliable examinations. It is noted that the international/French accreditation as COFRAC or AFNOR is also valid and accepted in Madagascar. Here is a link to find the COFRAC accreditation certificate of the IPM: [https://drive.google.com/file/d/1HJBkje9\\_BJ\\_4ZZy4E3RO\\_Po3\\_i6jOuXo/view?usp=sharing](https://drive.google.com/file/d/1HJBkje9_BJ_4ZZy4E3RO_Po3_i6jOuXo/view?usp=sharing)

Laboratories wishing to be accredited by COFRAC should contact him online on his website : [www.cofrac.fr](http://www.cofrac.fr)

Nuance between accreditation and certification:

Accreditation is an attestation issued by a third party to a conformity assessment body. It is a formal recognition of the competence of the conformity assessment body to perform specific conformity assessment activities..

Certification is an attestation issued by a third party regarding products, processes, systems or people.

### **Steps to follow to obtain COFRAC accreditation**

There are 4 steps to follow in order for a laboratory to obtain a COFRAC (Comité Français d'Accréditation) accreditation.

Step 1: Before submitting an application for accreditation

- The activity for which the laboratory is seeking accreditation is recognized as a conformity assessment activity (e.g. analysis, testing, organization of interlaboratory comparisons, certification, etc. ....)
- The laboratory is legally responsible for this activity
- The laboratory is based in a French national territory or overseas included. The laboratories located in Madagascar can be accepted by the COFRAC under the condition of the respect of the EC regulation 765/2008 and the rules of international collaboration.

Step 2: Submit the application for accreditation

- Acceptance of the application for accreditation results in the signing of an agreement between COFRAC and the applicant, which defines the contractual framework for the evaluation and subsequent follow-up of the accreditation.

### Step 3: Initial evaluation by COFRAC

This step includes 03 important points :

- The operational admissibility examination: This examination aims to verify that the applicant has taken into account the accreditation requirements and is able to demonstrate this, and to determine the modalities of the on-site assessment with regard to the accreditation regulations and the organization of the laboratory.
- On-site assessment: The on-site assessment must enable the organization to demonstrate its competence and the conformity of its operations with the accreditation requirements:
- The decision: The accreditation is issued by a notification letter accompanied by an accreditation certificate specifying its scope and period of validity (4 to 5 years). Then, the laboratory is referenced in the list of accredited organizations on the COFRAC website: [www.cofrac.fr](http://www.cofrac.fr).

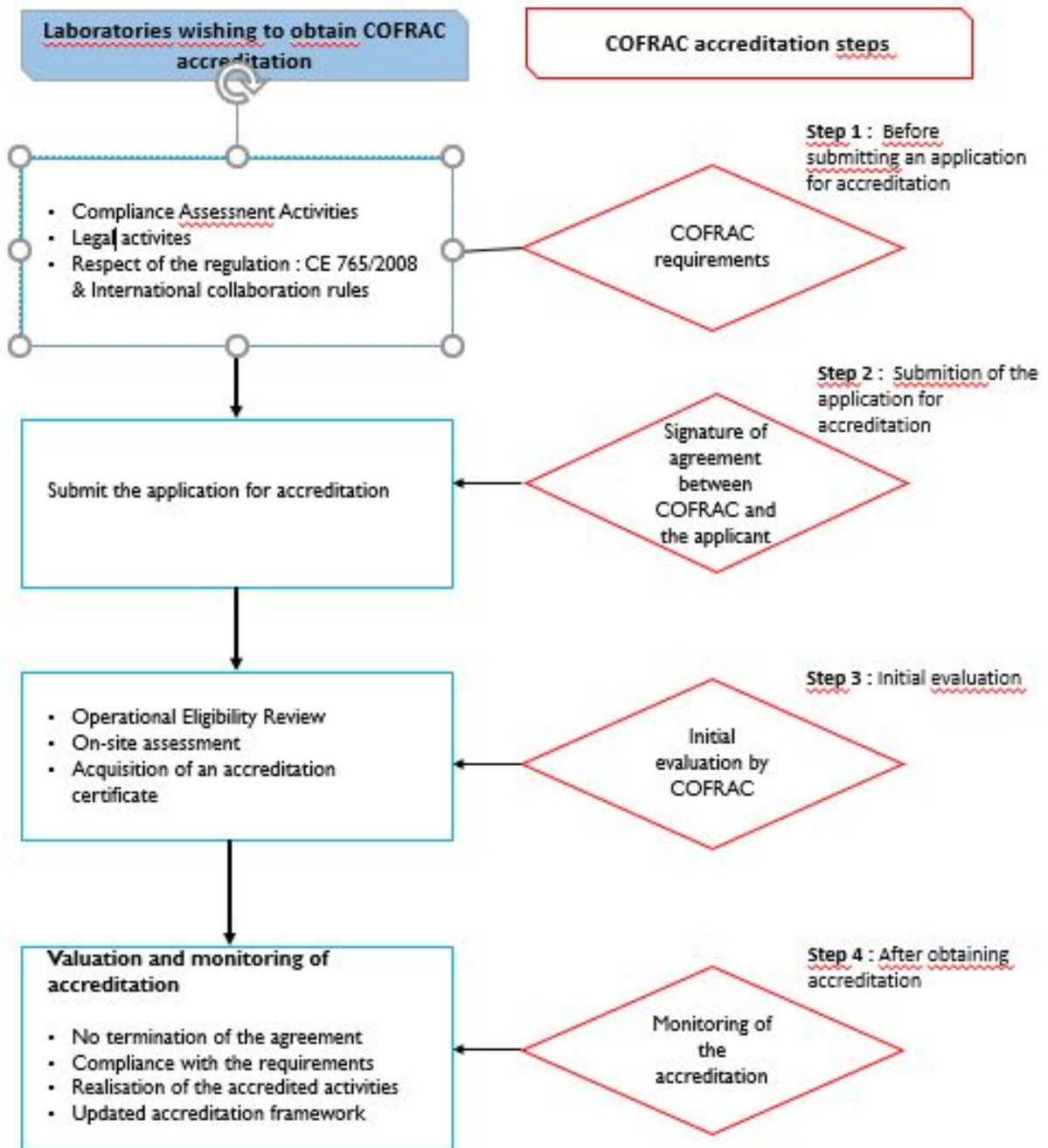
### Step 4: After obtaining accreditation

The accredited laboratory will enjoy the use of the COFRAC reference and the international recognitions that are defined in the document [GEN REF 11](#). Monitoring sequences conducted by COFRAC will take place at the accredited laboratory. The accreditation can be ended if:

- the laboratory requests termination of the accreditation agreement
- the laboratory has failed to meet the accreditation requirements within the specified time frame,
- the organization no longer performs the activities for which accreditation was granted,
- the version of the accreditation standard has become obsolete.



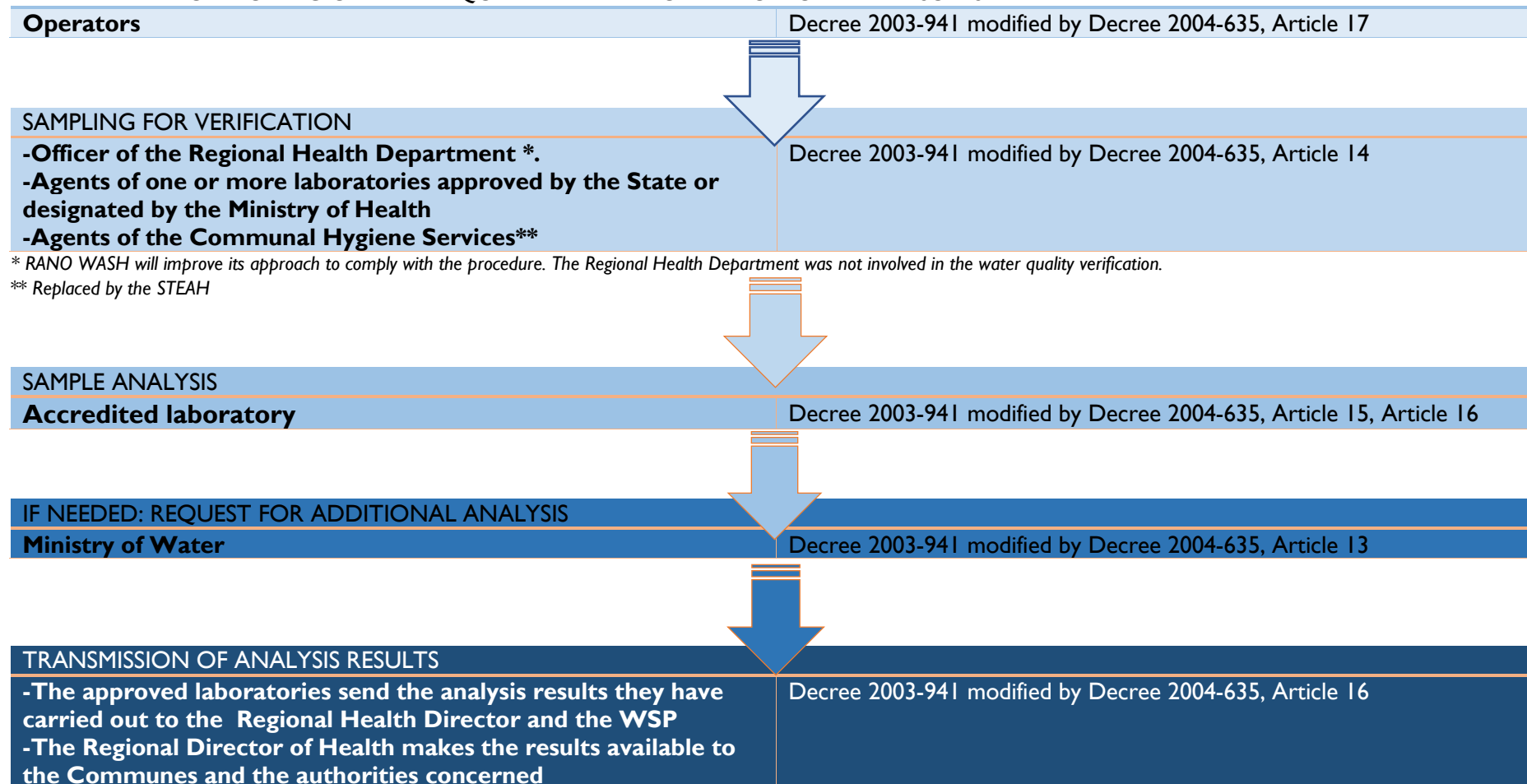
**COFRAC accreditiaon procedures, oriented to laboratories in charge of water quality test**



Example of an organization accredited by COFRAC: AFNOR certification (Association Française de NORmalisation) is a French certification organization accredited by COFRAC (Comité Français d'Accréditation).

○ **CONCERNING WATER QUALITY ANALYSIS AND MONITORING PROCEDURES ACCORDING TO TEXTS**

**PERMANENT MONITORING OF WATER QUALITY AND INFORMATION ON THE RESULTS**



\* RANO WASH will improve its approach to comply with the procedure. The Regional Health Department was not involved in the water quality verification.

\*\* Replaced by the STEAH

**Source of information:** 1. PNQE (National Water Quality Plan) September 2020 version; 2. pS-EAU (Solidarity-Water Program) report, December 2018 version,

## ANNEX 47. WATER QUALITY TEST IN ALL WATER SUPPLY SYSTEMS Q4.FY22

Organisati on	Regio n	Site	WSP	Constructi on status	In certified Lab, cost of water quality test covered by	State of water quality test	Frequen cy of WQT done by Water operator using field kit	Water quality tests performe d by	Expecte d date of the next WQT to Lab	Observations related to water quality
WaterAid	ALMA	Ambongabe	EGC Tamby	100%	RANOWASH Project	5. WQR more than 6 months	Weekly	IPM	Apr-22	After more than 1 year of service, WSP continues to find the best way the how to use enterprise resources in monitoring water quality test.
WaterAid	ALMA	Betatamo	EGC Tamby	100%	RANOWASH Project	5. WQR more than 6 months	Weekly	IPM	Apr-22	After more than 1 year of service, WSP continues to find the best to the way how to use enterprise resources in monitoring water quality test.
WaterAid	ALMA	Morarano Chrome	LOVA VELU	100%	Rise Project	3. Samples were collected	Weekly	IPM	May-22	Even the system was highly affected by the collapsed dam, the WSP is prepared to monitor the water quality. The acquisition of the chlorinator equipment was done on Q3
WaterAid	ALMA	Ambodinifody	Rano an'ala B	100%	Rise Project	3. Samples were collected	Weekly	IPM	Apr-22	The recent WQR from the RISE Project is now available
WaterAid	ALMA	Beforona	ACOGEMA	100%	Water service provider	5. WQR more than 6 months	Weekly	IPM	Apr-22	The local manager plans to conduct new water quality test with IPM in Q4
WaterAid	ALMA	Sabotsy Anjiro	RPIJ	100%	Rise Project	3. Samples were collected	Weekly	IPM	Apr-22	The recent WQR from the RISE Project is now available

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Organisation	Region	Site	WSP	Construction status	In certified Lab, cost of water quality test covered by	State of water quality test	Frequency of WQT done by Water operator using field kit	Water quality tests performed by	Expected date of the next WQT to Lab	Observations related to water quality
CRS	ATS	Ambila Lemaitso	APR	100%	Rise Project	3. Samples were collected	Weekly	IPM	Apr-22	The recent WQR from the RISE Project is now available
CRS	ATS	Mahatsara	2 ADH	100%	Water service provider	3. Samples were collected	Weekly	IPM	Apr-22	The recent WQR from the RISE Project is now available
CRS	ATS	Ranomafana Est	LOVA VELU	100%	Rise Project	3. Samples were collected	Weekly	IPM	Apr-22	The recent WQR from the RISE Project is now available
CRS	ATS	Ambodiriana	CREAT BTP	100%	CRS	5. WQR more than 6 months	-	IPM	Apr-22	New water quality test in certified Lab is requested for the system
CRS	ATS	Analamangahazo	CREAT BTP	100%	CRS	5. WQR more than 6 months	-	IPM	Apr-22	New water quality test in certified Lab is requested for the system
CRS	ATS	Fontsimavo	CREAT BTP	100%	CRS	5. WQR more than 6 months	-	IPM	Apr-22	New water quality test in certified Lab is requested for the system
CRS	ATS	Amboakarivo	EATC	100%	CRS	5. WQR more than 6 months	-	IPM	Apr-22	New water quality test in certified Lab is requested for the system

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Organisation	Region	Site	WSP	Construction status	In certified Lab, cost of water quality test covered by	State of water quality test	Frequency of WQT done by Water operator using field kit	Water quality tests performed by	Expected date of the next WQT to Lab	Observations related to water quality
CRS	ATS	Amboditandroro	EATC	100%	Rise Project	3. Samples were collected	-	IPM	Apr-22	The recent WQR from the RISE Project is now available
CRS	ATS	Mahatsara	EATC	100%	CRS	5. WQR more than 6 months	-	IPM	Apr-22	New water quality test in certified Lab is requested for the system
CRS	ATS	Ampasimadinika	2 ADH	100%	Water service provider	4. WQR less than 6 months	Weekly	IPM	Apr-22	The recent WQR from the RISE Project is now available
CRS	ATS	Ampasimbe Onibe	CREAT BTP	100%	Rise Project	3. Samples were collected	-	IPM	Apr-22	The recent WQR from the RISE Project is now available
CRS	ATS	Fanandrana	NMS	100%	CRS	5. WQR more than 6 months	-	IPM	Apr-22	New water quality test in certified Lab is requested for the system
CRS	ATS	Mahavelona-Foulpointe	Sandandrano	100%	Water service provider	4. WQR less than 6 months	Weekly	IPM	Apr-22	Water quality test had conducted, and the result tells the safety of the water
CRS	ATS	Ambalakondro	CREAT BTP	100%	CRS	5. WQR more than 6 months	-	IPM	Apr-22	New water quality test in certified Lab is requested for the system

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Organisation	Region	Site	WSP	Construction status	In certified Lab, cost of water quality test covered by	State of water quality test	Frequency of WQT done by Water operator using field kit	Water quality tests performed by	Expected date of the next WQT to Lab	Observations related to water quality
CRS	ATS	Ambodirafia	CREAT BTP	100%	Rise Project	3. Samples were collected	-	IPM	Apr-22	The recent WQR from the RISE Project is now available
CRS	ATS	Maroangivy	CREAT BTP	100%	CRS	5. WQR more than 6 months	-	IPM	Apr-22	New water quality test in certified Lab is requested for the system
CRS	ATS	Sahambala	CREAT BTP	100%	Rise Project	3. Samples were collected	-	IPM	Apr-22	The recent WQR from the RISE Project is now available
CRS	ATS	Sahavongo	CREAT BTP	100%	CRS	5. WQR more than 6 months	-	IPM	Apr-22	New water quality test in certified Lab is requested for the system
CRS	ATS	Ilaka-Est	LOVA VELU	100%	Rise Project	3. Samples were collected	Weekly	IPM	Apr-22	The recent WQR from the RISE Project is now available
CRS	ATS	Niarovana Caroline	2 ADH	100%	Water service provider	3. Samples were collected	-	IPM	Oct-22	The recent WQR from the RISE Project is now available
CRS	VKN	Ambohitsimanova	ACOGEMA	100%	Rise Project	3. Samples were collected	Weekly	IPM	Oct-22	The recent WQR from the RISE Project is now available

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Organisation	Region	Site	WSP	Construction status	In certified Lab, cost of water quality test covered by	State of water quality test	Frequency of WQT done by Water operator using field kit	Water quality tests performed by	Expected date of the next WQT to Lab	Observations related to water quality
CRS	VKN	Antsoatany	2 ADH	100%	Water service provider	5. WQR more than 6 months	Weekly	IPM	Oct-22	Acquisition of the WQR via RISE on Q4FY22,
CRS	VKN	Soanindrariny	EC ABRAHAM	100%	Rise Project	5. WQR more than 6 months	Weekly	IPM	Oct-22	Acquisition of the WQR via RISE on Q4FY22,
CARE	AMM	Ilaka Centre	APR	100%	Rise Project	5. WQR more than 6 months	Weekly	IPM	Oct-22	
CARE	AMM	Ivato Centre	APR	100%	RANOWASH Project	5. WQR more than 6 months	Weekly	IPM	Oct-22	Water quality test had conducted and the result from IPM will be available on Q4
CARE	AMM	Ambatamarina	ACOGEMA	100%	RANOWASH Project	3. Samples were collected	Weekly	RW, by Water kit test	Oct-22	Water quality test had conducted and the result from IPM will be available on Q4
CARE	HTM	Ambohimandroso		100%					Oct-22	
CARE	HTM	Andrainjato	Mickael	100%	RANOWASH Project	4. WQR less than 6 months	Iregularly	IPM	Oct-22	Water quality test had conducted and the result from IPM tells the water is safe to drink
CARE	HTM	Andrainjato Est	SECOA	100%	RANOWASH Project	4. WQR less than 6 months	Iregularly	IPM	Oct-22	Water quality test had conducted and the result from IPM tells the water is safe to drink

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Organisation	Region	Site	WSP	Construction status	In certified Lab, cost of water quality test covered by	State of water quality test	Frequency of WQT done by Water operator using field kit	Water quality tests performed by	Expected date of the next WQT to Lab	Observations related to water quality
CARE	HTM	Androy	Mickael	100%	RANOWASH Project	5. WQR more than 6 months	Punctually	IPM	Oct-22	The delivered water is safe according to results from the Lab, The water operator needs to reschedule the next new test to Lab
CARE	HTM	Andranovorivato	LAZA	95%					Oct-22	
CARE	V7V	Antaretra	Mickael	100%	Rise Project	5. WQR more than 6 months	Irregularly	IPM	Oct-22	Acquisition of the RISE WQR done in 2021, showing water is not safe
CARE	V7V	Kianjanomby	Mickael	100%	Rise Project	3. Samples were collected	Irregularly	IPM	Oct-22	Recent WQR is now available for this site
CARE	V7V	Ambalatenina	Mickael	100%	Rise Project	3. Samples were collected	Irregularly	IPM	Oct-22	Recent WQR is now available for this site
CARE	V7V	Ambatofotsy	Mickael	100%	Rise Project	5. WQR more than 6 months	Irregularly	IPM	Oct-22	Acquisition of the RISE WQR done in 2021, showing water is not safe
CARE	V7V	Ambodiara sakorihy	Mickael	100%	Rise Project	3. Samples were collected	Irregularly	IPM	Oct-22	The acquisition of the water quality result is pending



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Organisation	Region	Site	WSP	Construction status	In certified Lab, cost of water quality test covered by	State of water quality test	Frequency of WQT done by Water operator using field kit	Water quality tests performed by	Expected date of the next WQT to Lab	Observations related to water quality
CARE	V7V	Manampatrana	Mickael	100%	Rise Project	5. WQR more than 6 months	Irregularly	IPM	Oct-22	Acquisition of the RISE WQR done in 2021, showing water is not safe
CARE	V7V	Fenomby	Fitahiana	100%	Rise Project	3. Samples were collected 4. WQR less than 6 months	-	-	Oct-22	Recent WQR is now available for this site
CARE	V7V	Andonabe	Ecowin	100%	RANOWASH Project	4. WQR less than 6 months	Monthly	RW, by Water kit test	Oct-22	Recent WQR is now available for this site
CARE	V7V	Ambohitrova	Mickael	100%	RANOWASH Project	5. WQR more than 6 months	Irregularly	IPM	Oct-22	Recent WQR is now available for this site
CARE	V7V	Andemaka	Bushproof	100%	Rise Project	5. WQR more than 6 months	-	IPM	Oct-22	Acquisition of the RISE WQR done in 2021, showing water is safe
CARE	V7V	Lokomby	Mickael	100%	Rise Project	5. WQR more than 6 months	Irregularly	IPM	Oct-22	Acquisition of the RISE WQR done in 2021, showing water is not safe
CARE	V7V	Vohitrindry	EC ABRAHAM	100%	CARE	4. WQR less than 6 months	Monthly	IPM	1-Oct-22	Another water quality test is reconducted on quarterly 4

**Summary tab of water quality test' situation in all water supply system**

Average age of WSS	2.13	Year
Min Age WSS	0.34	Year
Max Age of WSS	3.55	Year
Number of WSS delivers safe water	3	6%
Number of WSS need to perform new WQT	45	94%
Number of tests covered by WSP	6	13%
Number of tests covered by RANOWASH	9	19%
Number of tests covered by different to RW/WSP	33	69%
Number of construction funded by USAID	33	69%
Number of construction funded by AFD	2	4%
Number of construction funded by Charity water	12	25%
Number of construction funded by different source to USAID	15	31%
Number of WSP	17	
Number of available WSS	48	

The following table presents the list of WSP and the number of water system they manage (including non-USG funded water infrastructure)

<b>WSP</b>	<b>Number of managed WSS</b>
EGC Tamby	2
LOVA VELU	3
Rano an'ala B	1
RPIJ	1
2 ADH	4
CREAT BTP	9
EATC	3
NMS	1
Sandandrano	1
EC ABRAHAM	1
APIR	2
ACOGEMA	3
Mickael	10
SECOA	1
Fitahiana	1
BushProof	1

**Abbreviations**

WQT	Water quality test
WSS	Water supply system
WSP	Water service provider
WQR	Water quality results

## ANNEX 48. COMPARISON OF RESULTS OBTAINED AFTER COMPARATIVE ANALYSES

### BACKGROUND

Water quality assurance relies on a number of factors: the water quality monitoring and management strategy, the existence of infrastructure and tools to ensure the sustainability of water quality testing services. The implementation of the measures adopted by the Water Quality Assurance Plan (WQAP) project requires a rigorous behavior of each stakeholder.

The Malagasy water code in its "DECREE N° 2003- 941 modified by the decree 2004-635 of June 15, 2004 relating to the monitoring of water, to the control of water intended for human consumption and to the priorities of access to the water resource" includes 03 organoleptic parameters and 37 physicochemical parameters whose frequency of follow-up is of 02 times per years minimum.

### PURPOSE

The purpose of this exercise is to show that the existing laboratories in Madagascar, mainly those in the six regions of intervention of the RANO WASH project and those in Antananarivo, working in water quality analysis services are numerous and reliable and that all clients concerned can call upon these laboratories for their own needs.

### METHODOLOGY

The methodology consists in taking several samples from the same water point under the same conditions. Then, to make them analyze at the level of the existing laboratories in Madagascar. Then, compare the results obtained, the location and the protocol of each laboratory. Finally, to bring an interpretation in order to draw a conclusion or recommendation.

### RESULTS AND INTERPRETATIONS

Among the 07 laboratories planned to be the object of a comparative study in this study, the so-called laboratory within Ny Tanintsika in Fianarantsoa proved to be unavailable immediately to receive the samples intended for it. The results obtained in this study result from the 06 laboratories being operational at the time of the routing of the samples.

Collection date	September 07, 2022
Handling date	September 12, 2022
Transport conditions	: Cooler containing eutectic plates
Capacity of a sample	: 1500 milliliters,
Type of bottle	Sterile bottle (IPM), EV
Website	CSB 2 Andemaka, Commune rurale d'Andemaka
Type of source	: Borehole water
Type of treatment	Aerated, filtered, chlorinated water
Type of system	: Pumped drinking water supply
Size of the AEP system	Serving an average population of 2216

Table I below shows the comparable results from the laboratories consulted. The results

Table I. Results of the tests for which the parameters to be tested are supported in the 06 laboratories

Laboratories	WATER IDENTITY	WATER FACIES			HEALTH-RELATED	
	pH	Calcium - Ca <sup>++</sup>	Chloride - Cl <sup>-</sup>	Sulfate - SO <sub>4</sub> <sup>2-</sup>	Nitrite - NO <sub>2</sub> <sup>-</sup>	Nitrate - NO <sub>3</sub> <sup>-</sup>
	Between 6.5 and 8.5 S.U.	≤ 200 mg/l	≤ 250 mg/l	≤ 250 mg/l	≤ 0.1 mg/l	≤ 50 mg/l
<b>CNRE</b>	6.33	4.64	0.15	1.03	0.01	0.89
<b>COLAB</b>	6.97	4	1	0	0	11.16
<b>BushProof</b>	7.44	0	2	4	0.01	2.6
<b>JIRAMA</b>	7.88	4.8	20.24	9.69	0.01	0.02
<b>IPM</b>	6.6	15.2	35.1	1	0.04	0.9
<b>INSTN</b>						
<b>Standard deviation (SD)</b>	0.63	5.65	15.51	3.95	0.02	4.59
<b>Average (Av)</b>	7.04	5.73	11.70	3.14	0.01	3.11
<b>Min</b>	6.33	0.00	0.15	0.00	0.00	0.02
<b>Max</b>	7.88	15.2	35.1	9.69	0.04	11.16

## INTERPRETATION

The qualitative analysis will be to assess the compliance or non-compliance of the results delivered by each laboratory. In the case of this study, all test results from each laboratory showed values that were in compliance with the standards defined in the project WQAP.

The quantitative analysis will be done by analyzing the standard deviation for the same parameters in order to observe how the results are dispersed for each given parameter. The arithmetic means, min and max values were reported to complete the analysis of the results. According to Table I, the nitrite and pH tests have the least scattered values for each parameter (SD varies from 0.02 to 0.63). While the other parameters present scattered values from the average (see Table I: Av varies from 3.95 to 15.51).

A hypothesis can be proposed on the similarity of these pH values, supposedly due to the method adopted in each laboratory that are the same, conductimetry. On the other hand, the concentration of nitrite also seems the same in all the results of these laboratories, the cause may be due to the absence of these elements the source of Andemaka.

For results with scattered values (Standard deviation (SD): varies from 3.95 to 15.51), the causes can be multiple, for example: the process used, the principle used, the limit (LD) of detection of each device, the sensitivity of each device...

## CONCLUSION

This comparative study showed that the qualitative analyses of the results obtained are identical at each laboratory. However, in terms of quantitative analysis of the results, each laboratory has its

own values and their differences vary from one laboratory to another. This can be due to the different processes chosen, different measuring devices, different

## **RECOMMENDATIONS**

After study based on these results obtained, all these analytical laboratories existing in Madagascar are all recommendable to carry out water quality tests. However, their base are located in Tamatave, and Antananarivo where the distance of routing still remains a challenge for the private sectors managing water in the locality far from the city. So for this case, it is also advisable to encourage and see the possibility of relocation of the analysis laboratories in the 22 regions on the basis of the criterion of profitability and facilitation of the Accreditation of the laboratories by the MEAH and the MSP.

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Appendix I: Results of all tests performed at the consulted laboratories

Laboratories	Sampling location	pH	Electrical Conductivity (EC)	TDS (Total Dissolved Solid)	Turbidity	*Bicarbonate - HCO <sub>3</sub> -	Carbonate - CO <sub>3</sub> 2- (form CaCO <sub>3</sub> )	Potassium - K <sup>+</sup>	Calcium - Ca <sup>++</sup>	Chloride - Cl-	Sulfate - SO <sub>4</sub> 2-	Magnesium - Mg <sup>++</sup> (Magnesium)	Phosphorus	Ammonium NH <sub>4</sub> <sup>+</sup>	Total Iron Fe <sub>2</sub> <sup>+</sup> & Fe <sub>3</sub> <sup>+</sup>	Fluoride - F-	Nitrite - NO <sub>2</sub> -	Nitrate - NO <sub>3</sub> -	Coliform (TTC)	Escherichia Coli
		Between 6.5 and 8.5 S.U.	≤ 1600 μS/cm	≤ 500 mg/l	≤ 5 NTU	Between 10 and 350 mg/l	≤ 500 mg/l	≤ 12 mg/l	≤ 200 mg/l	≤ 250 mg/l	≤ 250 mg/l	≤ 50	mg/l	mg/l	≤ 0.3 mg/l	≤ 1.5 mg/l	≤ 0.1 mg/l	≤ 50 mg/l	0/100m l	0/100 ml
<b>CNRE</b>	CSB Andemaka	6.33	159.3	nc	nc	nc	nc	2.52	4.64	0.15	1.03	5.23	0.6	0.006	<0.35	nc	0.01	0.89	nc	nc
<b>COLAB</b>	CSB Andemaka	6.97	135.02	67.01	4	nc	nc	2.7	4	1	0	nc	nc	nc	nc	0.08	0	11.16	0	0
<b>BushProof</b>	CSB Andemaka	7.44	129	64.59	<5	55	30	3.3	0	2	4	9	2.52	<0.001	0.08	nc	0.01	2.6	0	nc
<b>JIRAMA</b>	CSB Andemaka	7.88	113.1	105	0.35	24.4	0	nc	4.8	20.24	9.69	5.83	nc	0.03	0.1	nc	0.01	0.02	nc	nc
<b>IPM</b>	CSB Andemaka	6.6	nc	112	1	nc	nc	0.4	15.2	35.1	1	<0.05	nc	<0.01	<0.05	0.8	<0.05	0.9	0	0
<b>INSTN</b>																				
<b>STD</b>	CSB Andemaka	0.63	19.17	24.84	1.95	21.64	21.21	1.26	5.65	15.51	3.95	2.03	1.36	0.02	0.01	0.51	0.01	4.59	0.00	0.00
<b>Average</b>	CSB Andemaka	7.04	134.11	87.15	1.78	39.70	15.00	2.23	5.73	11.70	3.14	6.69	1.56	0.02	0.09	0.44	0.01	3.11	0.00	0.00
<b>Min</b>	CSB Andemaka	6.33	113.10	64.59	0.35	24.40	0.00	0.40	0.00	0.15	0.00	5.23	0.60	0.01	0.08	0.08	0.00	0.02	0.00	0.00
<b>Max</b>	CSB Andemaka	7.88	159.3	112	4	55	30	3.3	15.2	35.1	9.69	9	2.52	0.03	0.1	0.8	0.011 3	11.16	0	0

## ANNEX 49. COMPARISON BETWEEN HOUSEHOLD SATISFACTION AND WATER QUALITY MEASURES

To manage is to measure continuously. RANO WASH has conducted a study to determine if there is a correlation between the appreciation of water users and the values of water quality obtained via analysis devices or kits. We chose seven communes of intervention of the project for this study.

**Issue:** Is there a correlation between water user satisfaction results delivered by the WSP and water quality results obtained by devices?

**Approach and methodology:** Randomly survey 20 subscriber households per water service commune to assess how they rate water quality, then conduct water quality analyses at these surveyed households.

### Procedure:

One hundred fifty-three (153) households were surveyed during the study. They represent 19% of the subscribers at the time of the survey. The average age of those surveyed was 46 years, and 63% were women.

Table 2: Characteristics of surveyed households

Households	Min	Max	Average	Total
Resident/household	1	28	6	977
Age	14	87	46	
Gender	57	96.00		153
	Male	Female		

Table 3: Characteristics of the water quality measurements carried out

	Unit	Value
Number of tests	NTU	146.0
Average Turbidity	NTU	4.5
Min Turbidity	NTU	0
Max Turbidity	NTU	35.4

Turbidity was chosen as the most influential parameter in customers' water quality assessment. Turbidity ranges were drawn up to classify the water quality delivered to the users.

Table 3 classifies the quality of the water delivered to the users.

Table 4: Distribution of water quality according to measurements made

Number of Water connection has turbidity <1.5 NTU	60.0	41%
Number of Water connection has turbidity [1.5,3] NTU	16.0	11%
Number of Water connection has turbidity ]3,5] NTU	21.0	14%
Number of Water connection has turbidity ]5,15[ NTU	38.0	26%
Number of water connection has turbidity >=15 NTU	11.0	8%

Table 5: Legend

1 ☹☹	2 ☹	3 ☺	4 ☺	5 ☺☺
Very unsatisfied/Very bad	Unsatisfied/bad	Acceptable	Satisfied/Good	Very Satisfied /Very Good

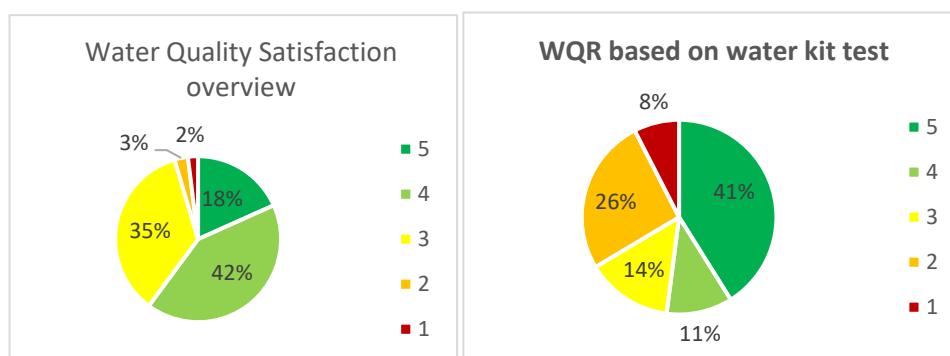


Diagram 1: Water Quality Diagram

### Interpretation of the results obtained

These results show that 60% of the households appreciated the quality of the water delivered by the system, 5% did not appreciate it, and 35% more or less agreed with the water they drink. On the one hand, the measured values showed that 66% of the water points at the level of the households surveyed meet the standards of potability and 34% require close monitoring.

### Conclusion

The study showed that users are sensitive to variations in water quality at the system level. Their assessment reflects almost the actual water quality measured by the kits. Water



quality maintenance plays an important role in managing WASH services in a community. Not only does it impact the development of the managing company, but it also impacts the development of the entire community.

## ANNEX 50. ENVIRONMENTAL SCREENING FORMS Q4. 22

### LIST OF APPROVED ENVIRONMENTAL SCREENING FORMS (ESFs)

FY2018 – FY2022

#	REGIONS	SITE	TYPE
<b>FY18</b>			
1	ALAOTRA MANGORO	Beforona	GWSS
2	ALAOTRA MANGORO	Sabotsy Anjiro	GWSS
3	ATSINANANA	Ranomafana Est	GWSS
4	ATSINANANA	Ampasimbe Onibe	GWSS
5	ATSINANANA	Mahavelona Foulpointe	PWSS
6	ATSINANANA	Ilaka Est	PWSS
7	VATOVAVY	Kianjanomby	GWSS
8	FITOVINANY	Ambalatenina	GWSS
9	FITOVINANY	Ambatofotsy	GWSS
10	FITOVINANY	Ambodiara sakorihy	GWSS
11	FITOVINANY	Andemaka	PWSS
<b>FY 19</b>			
1	ALAOTRA MANGORO	Ambongabe Amparafaravola	GWSS
2	ALAOTRA MANGORO	Betatamo Amparafaravola	GWSS
3	ALAOTRA MANGORO	Anosibe Ifody Ambodinifody	GWSS
4	VATOVAVY	Antaretra	GWSS
5	FITOVINANY	Lokomby	PWSS
6	VATOVAVY	Manapatrana	GWSS
7	ATSINANANA	Mahatsara	PWSS
8	ATSINANANA	Niarovana Caroline	GWSS
9	ATSINANANA	Ampasimadinika	GWSS
<b>FY 20</b>			
1	FITOVINANY	Mahabo	PWSS
2	FITOVINANY	Mahasoabe	PWSS
3	FITOVINANY	Marofarihy	PWSS
4	FITOVINANY	Maromiandra	GWSS

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#	REGIONS	SITE	TYPE
5	ATSINANANA	Andovoranto	PWSS
6	ATSINANANA	Antogombato	GWSS
7	VATOVAVY FITOVINANY, ANTSINANANA, ALAOTRA MANGORO	EPP Antsahavola EPP Ambodinifody CSB Ambodinifody CSB II Anosibe Ifody CEG Beforona EPP Beforona EPP Sabotsy Anjiro EPP Ambila Lemaitso CSB II Andovoranto EPP Isokatra EPP Ranomafana Est CEG Ranomafana Est EPP Ambarimilambana CEG Ampasimbe Onibe CSB II Ampasimbe Onibe EPP Foulpointe CEG Foulpointe CEG Ilaka Est EPP Ilaka Est EPP Niarovana Caroline EPP Ambalatenina EPP Ambodiara Sakorihy EPP Ambatofotsy CEG Ambatofotsy EPP Manampatrana CSB II Manampatrana EPP Andemaka CSB II Andemaka CSB II Antaretra EPP Antaretra	NUDGE WASH FRIENDLY INSTITUTIONS

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#	REGIONS	SITE	TYPE
		EPP Kianjanomby EPP Kelilalina EPP Lokomby CSB II Lokomby	
<b>FY21</b>			
1	VAKINANKARATRA	Antsoatany	GWSS
2	VAKINANKARATRA	Ambohitsimanova	GWSS
3	VAKINANKARATRA	Soanindrariny	GWSS
4	ALAOTRA MANGORO	Morarano Chrome	GWSS
5	ALAOTRA MANGORO	Morarano Gare	GWSS
6	VATOVAVY FITOVINANY	Vohitrindry	PWSS
7	AMORON'I MANIA	Ivato Centre	GWSS
8	AMORON'I MANIA	Ambatomarina	GWSS
9	HAUTE MATSIATRA	Andranomiditra (Réhabilitation Système Covid)	GWSS
10	HAUTE MATSIATRA	Androy	GWSS
11	HAUTE MATSIATRA	Andrainjato Est	GWSS
12	HAUTE MATSIATRA	Ambalamahasoa	GWSS
13	HAUTE MATSIATRA	Andrainjato Ambalavao	GWSS
<b>FY 22</b>			
1	FITOVINANY	Mahazoarivo	GWSS
2	AMORON'I MANIA	Ilaka Centre	GWSS
3	VAKINANKARATRA	Ambatotsipihina	GWSS
4	VATOVAVY et FITOVINANY	EPP Namorona CSB II Namorona EPP Vohitrindry EPP Mahazoarivo CSB II Mahazoarivo EPP Vohimasina Nord CSB II Vohimasina Nord EPP Ampasimanjeva CEG Ampasimanjeva	NUDGE WASH FRIENDLY INSTITUTIONS

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#	REGIONS	SITE	TYPE
5	ATSINANANA AND VAKINANKARATRA	CSB II Andovoranto CSB II Ampasimbe Onibe CSB II Ranomafana Est CSB II Ampasimadinika Manambolo CSB II Ankahababa CSB II Antsoatany CSB II Soanindrarinny CSB II Ambatotsipihina CSB II Ambohimanambola CSB II Antanamalaza	INCINERATOR
6	VAKINANKARATRA	Ambohimanambola	GWSS
7	VAKINANKARATRA	Ambatotsipihina	GWSS
8	FITOVINANY	Ampasimanjeva	PWSS
9	ATSINANANA	Bongabe / Foulpointe	GWSS
10	ATSINANANA	Maromby Mahatsara	PWSS
11	FITOVINANY	Vohimasina Nord	PWSS

## ANNEX 5I. ENVIRONMENTAL MITIGATION AND MONITORING REPORT (EMMR) Q4.22

### PROJECT/ACTIVITY DATA

<b>Project/Activity Name</b> (name associated with the IEE/EA):	Rural Access to New Opportunities in Water, Sanitation, and Hygiene (RANO WASH)
<b>Sub-project/Sub-activity Name</b> (specific to this EMMR, if applicable):	Madagascar
<b>Geographic Location(s)</b> (Country/Region):	FY22 - October 1, 2021 – September 30, 2022
<b>Implementation Start/End Dates:</b>	Cooperative Agreement N° AID-687-A-17-00002
<b>Contract/Award Number:</b>	CARE International, in consortium with CRS, WaterAid, Sandandrano, and BushProof
<b>Implementing Partner(s):</b>	
<b>Tracking ID:</b>	Program/Activity 687-005 USAID/Madagascar Health Sector Portfolio – Use of Selected Health Services and Products Increased and Practices Improved Madagascar HPN Covid-19 EMMP – June 2020.
<b>Tracking ID/link of Related IEE:</b>	Rural Access to New Opportunities in Water, Sanitation, and Hygiene (RANO WASH)
<b>Tracking ID/link of Other, Related Analyses:</b>	

### ORGANIZATIONAL/ADMINISTRATIVE DATA

<b>Implementing Operating Unit(s):</b> (e.g., Mission or Bureau or Office)	USAID Madagascar, Africa Bureau
<b>Lead BEO Bureau:</b>	AFR/SD
<b>Prepared by:</b>	RANO WASH Project Coordination Team
<b>Date Prepared:</b>	October 31, 2022
<b>Submitted by:</b>	Sebastien FESNEAU, Chief of Party
<b>Date Submitted:</b>	October 30, 2022

### ENVIRONMENTAL COMPLIANCE REVIEW DATA

<b>Analysis Type:</b>	EMMR
<b>Additional Analyses/Reporting Required:</b>	

## 1.0 PURPOSE

Environmental Mitigation and Monitoring Reports (EMMRs) are required for USAID-funded projects when the 22 CFR 216 documentation governing the project imposes conditions on at least one project/activity component. EMMRs ensure that the ADS 204 requirements for reporting on environmental compliance are met. EMMRs are used to report on the status of mitigation and monitoring efforts in accordance with IEE requirements over the preceding project implementation period. They are typically provided annually, but the frequency will be stipulated in the IEE or award document.

Generally, EMMRs are developed by the I.P. (and updated at least annually) in conjunction with the Annual Report. Responsibility for ensuring IPs submit appropriate EMMRs rest with USAID CORs/AORs. These reports are an important tool in adaptive management and are used by Mission,

Regional, and Bureau Environmental officers to ensure USAID interventions are implemented in compliance with 22 CFR 216 and mitigation measures are adequate.

## 2.0 SCOPE

The following EMMR documents the status of each required mitigation measure as stipulated in the associated EMMP. It provides a concise update on implementing and monitoring mitigation measures as detailed in the EMMP. It summarizes field monitoring, issues encountered, actions taken to resolve identified issues, outstanding issues, and lessons learned.

This EMMR includes the following:

1. A succinct narrative description of the EMMP implementation and monitoring system, updates to the system, staff or beneficiary training conducted on environmental compliance, lessons learned, and other environmental compliance reporting details.
2. EMMR table summarizes mitigation measures' status, any outstanding issues relating to required conditions, and general remarks.
3. Attachments include photos of mitigation measures and activities, waste disposal logs, water quality data, etc.

### USAID REVIEW OF EMMR

Approval:

<hr/>	<hr/>
[NAME], Activity Manager/A/COR [required]	Date
<hr/>	<hr/>

Clearance:

<hr/>	<hr/>
[NAME], Mission Environmental Officer [as appropriate]	Date
<hr/>	<hr/>

Clearance:

<hr/>	<hr/>
[NAME], Regional Environmental Advisor [as appropriate]	Date
<hr/>	<hr/>

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[NAME], Bureau Environmental Officer [as required]	Date
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### DISTRIBUTION:

### 3.0 PROJECT/ACTIVITY SUMMARY

The Rural Access to New Opportunities in Water, Sanitation, and Hygiene (RANO WASH) Project aims to increase equitable and sustainable access to water, sanitation, and hygiene services; maximize the impact on human health and nutrition, and preserve the environment in 250 rural communes in six high-priority regions: Vavovavy Fitovinany, Atsinanana, Alaotra Mangoro, Amoron'i Mania, Haute Matsiatra, and Vakinankaratra.

A CARE International–led consortium, including Catholic Relief Services (CRS), WaterAid, BushProof, and Sandandrano, implements the RANO WASH project.

The project is developing a systematic partnership with national and regional governments, water and sanitation institutions, communities, private-sector actors, civil society organizations, and beneficiaries to accomplish this goal.

RANO WASH implements a strategic set of mutually supportive activities that contribute to three interlinked strategic objectives:

Strategic Objective 1 (SO1). Strengthening the governance and monitoring of water and sanitation,

Strategic Objective 2 (SO2). Increasing the private-sector engagement in delivering WASH services,

Strategic Objective 3 (SO3). Accelerating the adoption of healthy behaviors and the use of WASH services.

In terms of environmental compliance, most of the activities carried out by the project are classified in the categorical exclusion threshold determination. The main activities that are qualified with a negative determination with conditions are the development of the Communal Planning Document (PCDEAH<sup>3</sup>), implemented under SO1, the construction of small-scale WASH infrastructure, as well as the promotion of sanitation products and services, implemented under SO2, and the CLTS<sup>4</sup> activities, implemented under SO3. The project also has a WQAP<sup>5</sup> for water quality monitoring that it must follow.

Starting in FY21, the project wanted to move into fecal sludge management to promote sanitation products and services. For this activity, a study of possible actions for the project has been launched based on an assessment of already functional services that still need support, either material or capacity building, to enable the effective revitalization of their activities. The assessment of services will cover both rural and urban areas. To this end, the project has developed studies and revitalization of the Fecal Sludge Management service in Madagascar. The main objective of the service is to benchmark existing fecal sludge management services, identify their weaknesses and possible areas for improvement, and select and support the service with the greatest potential for development. We are in the feedback stage before delivering the evaluation report (APD FSM). More information will be provided as the project progresses.

Besides, we continue to implement and monitor social measures on completed construction sites. The latter activities involve sensitization and IEC at the community level with a generally unpredictable output, requiring longer post-construction monitoring and support. In this way, the project will

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<sup>3</sup> PCDEAH stands for “Plan Communal de Développement dans le secteur de l'Eau de l'Assainissement et de l'Hygiène.”

<sup>4</sup> CLTS stands for “Community Led Total Sanitation.”

<sup>5</sup> WQAP stands for “Water Quality Assurance Plan.”



continue to support the communes concerned and the systems managers until the end of its life cycle.

The training was also conducted for project staff and local actors in the field to disseminate and harmonize the understanding of the expectations and commitments of the project in terms of environmental compliance, including the monitoring of the measures provided for in the ESF for each work, water quality, and climate risk management. Overall reporting on compliance with the measures mentioned in these documents is provided in the next section.

The project will also continue monitoring and following up the water quality assurance based on data updates that will get periodically from field monitoring.

Regarding the implementation of CLTS through the seven regions, between July and September 2022, the project has supported local structures and actors such as WASH technical agents based in the Commune (ATEAH) and fokontany leaders to trigger, follow-up, and facilitate ripple effect between communities, which has allowed 405 communities to become open defecation-free. Supporting local structures and actors to lead activities against open defecation is a part of the project's withdrawal strategy.

## 4.0 ENVIRONMENTAL COMPLIANCE MONITORING AND REPORTING

This document reports the project's key achievements in compliance with procedures validated in its environmental compliance documents, including the WQAP<sup>6</sup>, CRM<sup>7</sup>, and sites' specific approved ESF<sup>8</sup>.

Before constructing water supply infrastructures, the project conducted technical feasibility and detailed design studies (APS and APD), ESF development, and water quality testing. Before any implementation, the technical studies have been approved by the MoWASH and disseminated to the communities benefiting from the corresponding water supply systems.

As in previous years, BushProof and Sandandrano are still monitoring the application of the environmental measures provided in the ESF for these works. The corresponding documentation is being developed as the work progresses and will be finalized with the contractors' submission of the compliance plans. According to each approved ESF, the documentation concerning the application of these environmental conditions for construction activities is provided in this report's appendix.

All project staff involved in implementing and monitoring the procedures have received training on environmental compliance and climate risk management. They were trained on the project's environmental compliance procedures, Reg. 216, the development of the Environmental Impact Assessment and Screening (EIS) document, and the implementation and monitoring of mitigation measures (EMMP and EMMR) provided for USAID-funded worksites.

An action plan was established with the participants to draft the ESFs based on the corresponding ODAs properly. It was established that from now on, ESFs would be developed by Sandandrano and BushProof, verified by regional private sector officials, and submitted to the PCT Environmental Compliance Specialist, who would review them before submission to USAID.

As part of the ESF validation process, we have established some documentation frameworks, as shown in the appendix of this document. These documentations include feedback on implementing artificial lakes via hybrid dams (earth and ferrocement), land expropriation procedures, and compliance with health and safety policies on construction sites.

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<sup>6</sup> The project's Water Quality Assurance Plan (WQAP) has been formally validated by USAID in FY18

<sup>7</sup> The project's Climate Risks Management Plan (CRM) has also been formally validated by USAID in FY18

<sup>8</sup> The detailed risk analyses on the construction work carried out by the project, as well as the corresponding mitigation measures, are explained in the detailed site-specific Environmental Screening Form (ESF) validated by USAID.

In total, 50 Environmental Screening Forms (ESFs) were validated.

All ongoing projects have collected evidence of compliance with these specific activities.

In addition, within the framework of the project, training on water resources management and environmental compliance, as described in the ESF document, was conducted in Amoron'i Mania during the first week of Q1.22. The objective of this training was to strengthen the skills of the CARE SO2 technicians, the ATEAH, the T.A. of the NGO AIM, some members of ASUREP, the Fokontany chiefs, the works supervisors, and the site managers of the companies (Commune Ivato Centre and Commune Ambatomarina)

The themes treated during this training were:

- The monitoring and mitigation plan of environmental impacts;
- Monitoring and control of the execution of the works;
- Environmental measures;
- The Climate Risk Management Plan;

With the participation of 21 people were able to carry out the training in ESF with the support of the ECS manager and the engineer of Sandandrano.

Regarding environmental compliance monitoring in the operational phase, a collective training of ICGs was also organized in Ambatondrazaka with the participation of the RANO WASH PCT and the Alaotra Mangoro team during Q1.22. The objective is to transfer the environmental compliance monitoring skills described in the ESF to communal authorities and WASH service managers as part of the disengagement strategy to be implemented by RANO WASH. All the intervention communes and the 05 ICGs (RPIJ, Rano An 'Ala B, ACOGEMA, Lova Velu, EGC Tamby) responded to this training.

The training was marked by a field trip to Amparafaravola and Morarano Chrome for practical application. To this end, an environmental monitoring form was developed and distributed for monitoring purposes.

#### **UPDATE ON CLTS AND BEHAVIOR CHANGE ACTIVITIES**

Regarding the implementation of CLTS through the seven regions, between July and September 2022, the project has supported local structures and actors such as WASH technical agents based in the Commune (ATEAH) and fokontany leaders to trigger, follow-up, and facilitate ripple effect between communities, which has allowed 405 communities to become open defecation-free. Supporting local structures and actors to lead activities against open defecation is a part of the project's withdrawal strategy.

However, the project follows the contingency plan and the revised CLTS toolbox (considering Covid-19). The project also monitored the evolution of the Covid-19 progress at the regional and national levels through various information channels (WHO, WASH Clusters, ...).

#### **UPDATE ON CLIMATE RISK MANAGEMENT**

The project uses weather data from local weather service stations to design the water supply system design documents. We also track weather forecasts to monitor potential risks of severe weather that could negatively affect the implementation of the work. However, the available data ranges are often insufficient to size the projected infrastructure properly and must be coupled with other satellite data sources.

The possible impacts of climate change on water quality (variations in pH and salinity of water in coastal areas) are also analyzed during the design phase and considered for the sizing of treatment units. Finally, in all the studies and projects, the works have been designed and built in such a way as to minimize the risks of erosion and avoid flooding areas without special precautions.

For good protection of watersheds or water resources, watershed protection and improvement of water resources management have been planned to be implemented at the level of watersheds where we are going to make developments.

The second quarter of this fiscal year was marked by four successive cyclones in one month, namely Ana, Batsirai, Dumako, and Enmati. Almost all the regions of RANO WASH were affected. The passage of these cyclones affects the population's livelihoods, including the most basic needs such as food, drinking water, health care, etc...

Faced with the situation, coordination meetings were held by the clusters to harmonize the response to the disaster. Weekly meetings continue until today under the Lead of the DREAH Vatovavy Fitovinany. In addition to supporting the development, collection, and processing of EIMA data (BATSIRAI - EMNATI), RANO WASH has actively sensitized disaster-affected households on key WASH messages and has supported the construction of temporary latrines at shelter sites.

It should also be noted that the passage of cyclones in February in the Haute Matsiatra Region caused damage to our intervention sites, including habitats and latrines, as well as the digging of drains and silting of rice fields. We supported the DREAH in emergency responses as an Haute Matsiatra WASH Cluster member.

In addition, we experienced severe weather in Alaotra Mangoro, which caused the Morarano Chrome hybrid dam to break. After the intervention of local authorities and the Rano Wash team, WSPs took the trouble to repair the damage caused by this natural disaster as quickly as possible to restore water service.

Regarding the impact of climate change observed in the different regions of RANO WASH, the repair and restoration of damage caused by cyclones during the second quarter have been carried out until Q4.22.

### **WATERSHEDS – IWRM**

The ultimate objective of IWRM is to manage water resources sustainably and equitably while ensuring the protection and restoration of watersheds.

Among the "measures" aimed at improving the management of water resources, we can quote, by way of example:

- Construction of green infrastructure, buffer zones or reforestation;
- Establishment of compensation for water-related ecosystem services;
- Resource management plans implemented and enforced;

To this end, RANO WASH has partnered with environmental actors such as the DREDD, the PLAE project, and the Regional Directorate of Land Management/Land Service to implement the communal IWRM plan. The different local actors (Executive, Councilors, ATEAH, OSC, ASUREP, SLC, KRFF, Chef Fokontany, Communities...) participate in reforestation activities to protect water resources and existing infrastructures.

Particularly in the Haute Matsiatra region, reforestation activities have been carried out. This action was based on the collaboration between public and private entities: the DREDD, the DREAH, the DRAE, the Commune, the private nurseryman Rapaoly Bambou, and the WSP, with the support of the technicians of the STD. The reforestation activities required the mobilization of several entities in the reforestation activities: VOAMAMI groups, the Youth Association, the Women's Association, employees of the Commune, villagers, and students at public schools.

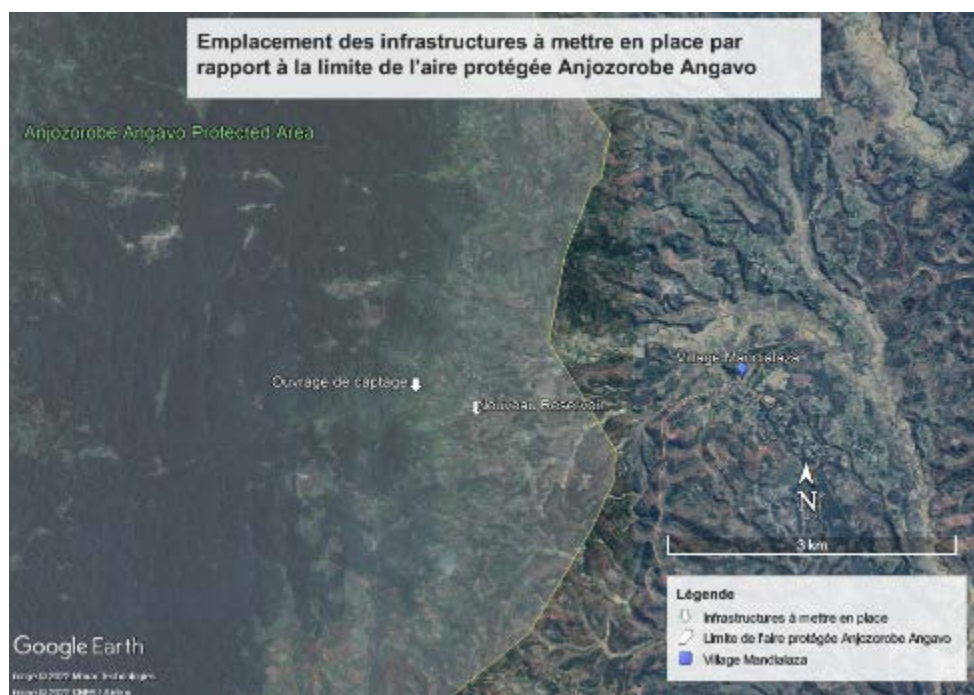
The species of plants to be planted by category of the perimeter were chosen according to their characteristics and their availability:

**Table: Variety of species to plant**

Perimeter category	Variety of species to plant
Immediate Protection Perimeter	Natural regeneration

Level I Close Protection Perimeter (closest to the PPI)	<p>Bamboos :</p> <ul style="list-style-type: none"> <li>- Phylostacus auréa</li> <li>- Bamoussa bamboos</li> <li>- Dendrocalamus Gigantéus</li> </ul>
Level II Close Protection Perimeter (farther from the PPI)	<p>Shrubs :</p> <ul style="list-style-type: none"> <li>- Café arabica</li> <li>- Pink pepper berry</li> </ul>
Far Protection Perimeter	<p>Trees:</p> <ul style="list-style-type: none"> <li>- Cinnamon</li> <li>- Eucalyptus</li> </ul>

In this sense, in Alaotra Mangoro, during the feasibility study for implementing a water supply system in Mandialaza, the catchment work will be located in a protected area in a watershed managed by Fanamby "the Harmonious Protected Landscape Anjozorobe-Angavo Complex." To better manage and protect the watershed, it is essential to identify the risks of ecological disturbance to the surrounding environment.



### Location of the infrastructures to be put in place about the limit of the protected area Anjozorobe Angavo, Alaotra Mangoro

As shown on the map above, the proposed drinking water supply system's intake structure and new reservoir are in a protected area classified as a harmonious landscape. The intake structure in question uses a water resource. As this is a protected area, we will ensure minimal changes are made during the construction phase to preserve the surrounding ecosystem. The project is already working with the ONE and the Ministry represented by the Direction Régionale de l'Environnement et du Développement Durable (DREDD) of the Alaotra Mangoro region. It is proceeding with the procedure for occupying protected areas.

Procedures to regulate this situation began in Q2.22 and have continued until now.

Still, within the framework of watershed protection activities, Q3.22 is marked by the joint descent to Bongabe carried out by the RANO WASH team with the person in charge of environmental compliance PCT, as well as representatives of local authorities in the Commune Mahavelona Foulpointe, the DREAH, the DREDD Atsinanana. The objective of this intervention is to verify on-site the limit of the area affected by the implementation of the water supply system to feed the fokontany Bongabe about the area of the natural reserve Analalava identified in this locality.



**The area affected by the project and the boundary of the Analalava Special Reserve**

## 5.0 LESSONS LEARNED

As in previous years, the recurring problem at the project sites concerning water resources management is an inappropriate land use in the watersheds of these resources. Agricultural activities by local people pose the greatest threat to the integrity of these watersheds and the sustainability of the associated water resources.

As IWRM requires the intervention of the development, policy, and strategy sectors, governed by basin agencies according to Decree 2003-191, which do not yet exist, the project only intervenes in managing water resources used for VSS and controllable under PPP contracts.

However, securing a watershed, even in small areas frequently observed in water supply systems, remains challenging. The project relies on public-private partnerships in WASH to address this challenge. Protection areas are delineated in a PPP contract, and responsibilities are established for their conservation. The Manager is responsible for securing the immediate protection area around the well and the close protection area, approximately 20m around the well. On the other hand, the municipality must issue an order to regulate land use in the remote protection perimeter (the entire watershed). In addition, this land's users are responsible for avoiding harmful activities and ensuring safety.

Furthermore, RANOWASH's support consists of empowering these different PPP actors to ensure the security of water resources used for WASH. And we have proven that while waiting for the effective establishment of basin agencies, it is possible to work on a smaller scale, that of the Communes, via PPPs to secure potential water resources.

In addition, before each start of work, the project has taken the initiative to provide training on the environmental compliance measures included in the ESF document. This support provides participants with knowledge on:

- The environmental impact monitoring and mitigation plan;
- Monitoring and control of work execution, especially for ICMs;
- The adoption of environmental measures;
- The climate risk management plan for each appropriate site;

In addition, the regional team of RANO WASH has taken the initiative to monitor reforestation activities in the watersheds carried out in Q2.22. Below are photos showing the monitoring of bamboo planting in Andrainjato in the Haute Matsiatra Region.



**Photo of follow-up of bamboo reforestation in Andrainjato, Haute Matsiatra**

### 3.0 EMMR TABLE FOR RANO WASH ACTIVITIES, INCLUDING CRM REPORT

Period covered: F.Y. 2022; October 2021 to June 2023.

Project/Activity/Sub-Activity	Mitigation Measure(s)	Summary Field Monitoring/Issues/Resolution (i.e., monitoring dates, observations, issues identified and resolved)	Outstanding Issues, proposed resolutions
<b>SO1. Governance and monitoring of water and sanitation strengthened for sustainable and equitable WASH services</b>			
<b>IRI.3 Strengthened sub-national systems</b>			
<b>Output I.3.2 Commune management capacities strengthened for WASH service delivery</b>			
Act: 1.3.2.1: Prepare communes to undertake PCDEAH (mobilization of the private sector, improvement of the document)	Employ a qualified and well-trained technician(s) to implement the design of each PCDEAH in an inclusive and participatory way. This implementation includes fieldwork, planning, and the establishment of the design document itself.	The project continued the same approach as in previous years to finalize the remaining PCDEAH. Qualified technicians reviewed environmentally sensitive aspects of this planning document to address potential climate change mitigation and adaptation measures.	None
<b>SO2. Private sector engagement in WASH service delivery increased and improved.</b>			
<b>IR2.1: Improved WASH products, technologies, services, and business models</b>			
<b>Output 2.1.2: Regional WASH market development plans developed</b>			
Act 2.1.2.1: Finalize the two-remaining regional WMDPs and continue to disseminate the WMDPs in the six regions	Ensure that environmental concerns (distance between the bottom of the latrine and the water table) are considered in any latrine promotion strategy that may emerge during WMA implementation.	Environmental measures are considered in any latrine promotion activity within the project.	None
<b>IR 2.2: Improved WASH products, technologies, services, and business models</b>			
<b>Output 2.2.1: Design and Construction of sustainable WASH infrastructure improved</b>			

Project/Activity/Sub-Activity	Mitigation Measure(s)	Summary Field Monitoring/Issues/Resolution (i.e., monitoring dates, observations, issues identified and resolved)	Outstanding Issues, proposed resolutions
Act 2.2.1.1: Carry out APS and APD feasibility studies and develop the corresponding ESFs	Ensure that the appropriate design of WSS is designed for the appropriate location concerning the population that needs to be served (water demand, geographical location)	The project has finalized all necessary APSs and APDs. The choice of water resources is made during the APS, while a detailed quantitative analysis of the potentially mobilizable resource is made during the APD study phase.	None
	Ensure that the best water resource (spring, groundwater, surface water) is used, based on accurate data related to their production capacity in adequation with targeted people's water demands, for any WSS design.	All APD study reports contain quantitative analyses of the potentially mobilizable water resources' productive capacity based on factual data from field measurements, the national meteorological service, and satellite weather observations. These estimates are then compared with the population's water demand projections for a 20-year horizon.	
	Ensure feasibility (APS) and detailed project design (APD) results are communicated and validated by the beneficiary community and the MoWASH before Construction.	Implementation of this measure is systematic for all studies performed by the project. To this end, 83 APDs have been developed. The APS validation process requires that the results of the studies be presented to the communal authorities and the DREAH. In contrast, the APD validation process requires presenting the results to beneficiaries and authorities. At the end of FY21, validation checklists were established as a tool for tracking study documents.	None
	Identifying, planning, and Applying appropriate actions aiming at the Attenuation of or Adaptation to Climate change impact/risk	Climate and environmental data are the basis for all decisions made in feasibility studies and detailed design files for drinking water supply systems. One of the project's greatest climate risks is the depletion of mobilizable freshwater resources due to the watersheds' progressive degradation.	None



Project/Activity/Sub-Activity	Mitigation Measure(s)	Summary Field Monitoring/Issues/Resolution (i.e., monitoring dates, observations, issues identified and resolved)	Outstanding Issues, proposed resolutions
		<p>One of the project's adaptation solutions is the constitution of hill reservoirs that can store rainwater on the surface and supplement the supply during low water periods. Besides, installing a water supply reservoir at the watershed level is always followed by adequate protection measures for the watershed structure. Further details are provided in Annex 2.</p> <p>All these APS and APD reports were reported back to the communities and have been subject to their validation and the Dir-WASH technicians of each region.</p>	
	<p>As most RANO WASH construction activities have no significant adverse impact on the environment, a detailed environmental and climate change-related concerns analysis will be provided on the Environmental Screening Form (ESF) related to each construction site</p>	<p>In total, the project was able to develop 50 Environmental Screening Forms (ESF)</p>	<p>None</p>
<p>Act 2.2.1.2: Based on the FY20 CEI results (regional shortlists), launch restricted tenders to recruit private operators to carry out the construction works.</p>	<p>Train shortlisted enterprises about the minimum technical requirement (established by the project) before launching any bid process</p>	<p>Shortlisted enterprises are trained on RANO WASH technical requirements before submitting for any bid process</p>	<p>None</p>

Project/Activity/Sub-Activity	Mitigation Measure(s)	Summary Field Monitoring/Issues/Resolution (i.e., monitoring dates, observations, issues identified and resolved)	Outstanding Issues, proposed resolutions
<p>ACT 2.2.1.3: Contract and monitor water supply system construction, operation, and management (large and small systems)</p> <p>ACT 2.2.1.4: Conduct on-the-job training for CAO (Communal tendering committee) members</p>	<p>Ensure that technical notation criterion used in the bid processes advantage enterprises that have confirmed experiences and/or qualified human resources and have confirmed capacity for cost-sharing, ensuring a good quality of implementation and sustainability of each requested WASH infrastructure construction activity</p>	<p>The minimal requirement for the qualification of enterprises is set up when building the bid shortlist</p>	
<p>ACT 2.2.1.6: Develop and implement marketing and communication strategies to increase the number of water connections in constructed water systems</p> <p>ACT 2.2.1.8: Implementation of PPP+ Strategy: setting up of small construction or rehabilitation (upgrading) of water points (or small rural</p>	<p>Following the technical standards of each WSS identified and respecting water quality standards and environmental norms</p>	<p>An environmental monitoring form has been developed and distributed to those responsible for monitoring and controlling environmental compliance measures issued during the development and validation of all studies conducted within the RANOWASH project. This monitoring form is equipped with a graduation tool whose objective is to determine the level of aptitude, autonomy, motivation, and leadership of the WASH and the head of the commune concerned to play their roles and responsibilities in promoting sustainability, The results of the site graduation will be used and analyzed to measure and manage the level of support and supervision that still needs to be provided and the recovery actions that will ensure the sustainability of the infrastructure.</p>	<p>None</p>

Project/Activity/Sub-Activity	Mitigation Measure(s)	Summary Field Monitoring/Issues/Resolution (i.e., monitoring dates, observations, issues identified and resolved)	Outstanding Issues, proposed resolutions
<p>water supply system), support private operators (including WSPs) to diversify their services, extend existing piped networks, etc.  ACT 2.2.1.10 Monitor the various key compliance issues applicable to water service delivery: water quality monitoring, resilience to climate change, respect for the environment, etc.</p>		<p>The environmental monitoring sheets submitted this quarter are shared in the annex, including their respective weightings.</p>	
<p>ACT 2.2.1.7: Set up WASH sanitation facility in institutions</p>	<p>Following the technical standards of each sanitation facility identified and respecting environmental norms</p>	<p>Several construction and rehabilitation projects for sanitary blocks in schools and health facilities have been initiated. The project uses two approaches to this end:  (i) the first is to assess the work needed and collaborate with the institutions to make them handle the work while the project only provides building materials to support them  (ii) The second approach involves the project's technical partners or technicians diagnosing the existing situation and designing the appropriate infrastructure for these institutions funded by the project.  The project's regional technicians ensure that</p>	<p>None</p>

Project/Activity/Sub-Activity	Mitigation Measure(s)	Summary Field Monitoring/Issues/Resolution (i.e., monitoring dates, observations, issues identified and resolved)	Outstanding Issues, proposed resolutions
		activities at these sites meet the environmental compliance standards outlined in the ESF for Nudges and WASH-Friendly Institutions.	
ACT 2.2.1.9: Conduct needs/feasibility assessments and roll out PPP pilot for fecal sludge management services	<p>The environmental risks associated with a sludge management model change greatly depending on each site's environment, and different designs are proposed.</p> <p>The project will establish a specific IEE and ESF with detailed EMMP based on site choice and the fecal sludge management system's designs to be piloted. The EMMP will list the potential negative impacts per unit (collection - transport - treatment - valorization) and the measures to be respected to control these impacts.</p>	Starting in FY21, the project wanted to move into fecal sludge management to promote sanitation products and services. For this activity, a study of possible actions for the project has been launched based on an assessment of already functional services that still need support, either material or capacity building, to enable the effective revitalization of their activities. The assessment of services will cover both rural and urban areas. To this end, the project has developed studies and revitalization of the Fecal Sludge Management service in Madagascar. The main objective of the service is to benchmark existing fecal sludge management services, identify their weaknesses and possible areas for improvement, and select and support the service with the greatest potential for development. We are in the feedback stage before delivering the evaluation report (APD FSM). More information will be provided as the project progresses.	
<b>SO3. Adoption of healthy behaviors and use of WASH services accelerated</b>			
<b>IR3.2 Improved implementation of WASH behavior change at all levels: communities, government, and private sector</b>			
Output 3.2.2: Innovative CLTS and WASH BC implementation			
Act 3.2.2.13: Provide technical support to	Include environmental measures in training programs.	As for the previous update of the EMMR, RANO WASH has continued implementing CLTS on its	None

Project/Activity/Sub-Activity	Mitigation Measure(s)	Summary Field Monitoring/Issues/Resolution (i.e., monitoring dates, observations, issues identified and resolved)	Outstanding Issues, proposed resolutions
local authorities to continue sanitation activities	These measures will concern the safety distance between the bottom of the latrine pits and the water table and the horizontal distance between a latrine and a well or other groundwater withdrawal point.	intervention communes. The communities benefiting from CLTS have constructed latrines to break the faeco-oral transmission chain. During the "Follow-Up Mandona" part, which was conducted door-to-door because of the restrictions on Covid-19, those communities have been sensitized to consider environmental issues when building or improving their latrines (examples of raised environmental issues: the distance between wells and latrines, not defecating in the river, etc.)  The project has directly trained institutions, met WASH-friendly criteria, and ensured that they are aware of the measures to avoid sanitation facilities being sources of pollution and contamination for their surroundings/environments.	
<b>Output 3.2.3: Communication Marketing developed for WASH products and services</b>			
Act 3.2.3.1: Implement a marketing campaign on WASH products and services	Ensure that environmental concerns (distance between the bottom of the latrine pit and the water table) are considered in any latrine promotion strategy	A team meeting was held in the first quarter, marked by implementing a collaborative approach to planning. In the second and third quarters of FY22, we focused on product development and identifying customer needs. As part of this approach, the second round of testing took place in a single commune ("Lokomby" - Fitovinany region) to allow the project team to build several prototype latrine components and to test them in real-time with potential clients. This phase allowed us to identify what clients prefer in the "Kabone Mandamina" products and provided an opportunity to define the essential elements to consider in terms of supply and demand - procurement - financing. Following these tests, we will	None

Project/Activity/Sub-Activity	Mitigation Measure(s)	Summary Field Monitoring/Issues/Resolution (i.e., monitoring dates, observations, issues identified and resolved)	Outstanding Issues, proposed resolutions
	<p>Promote recyclable/reusable products (such as washable sanitary napkins) or biodegradable products to minimize environmental impacts.</p>	<p>build a sales team and target the first users. The deployment of the flagship product "Kabone Mandamina" started this quarter.</p> <p>The local promoters in the seven regions have already been trained to trade washable sanitary towels (produced by the seamstresses trained who have been trained since FY19. They also collaborate with masons and other local WASH service providers to promote recyclable hygiene products, spot water treatment (Sur'eau), washable latrine slabs, etc.</p>	
<b>Cross-cutting analysis of project activities impacted by Covid-19</b>			
<p><b>Technical assistance:</b> strengthen the Ministry of Water's capacity in governance</p>	<p>Technical assistance to the design of water and sanitation facilities should also include the provision of the following:</p> <ul style="list-style-type: none"> <li>• Clean and disinfect water systems following construction or maintenance using chemical disinfectants (e.g., chlorine).</li> <li>• Provide outreach, educational materials, and training to users/community on the water supply system's proper use, operation, and maintenance to ensure its long-term sustainability.</li> </ul>	<p>The project's water systems have a disinfection unit, including a sodium hypochlorite production and injection unit. The residual chlorine level is checked daily by the technicians operating these systems. At control water points, the measured values vary from 0.5 to 1.5 mg/l (below WHO guidelines at 2.5 mg/l).</p> <p>Currently, WSPs produce an average of 30 liters of active chlorine per day, with an average of 15 liters per day for the need for water systems to be disinfected. The project continued to support these WSPs to produce more and sell chlorine to benefit individual households in their supply area.</p>	<p>None</p>

Project/Activity/Sub-Activity	Mitigation Measure(s)	Summary Field Monitoring/Issues/Resolution (i.e., monitoring dates, observations, issues identified and resolved)	Outstanding Issues, proposed resolutions
<b>Increase and improve private sector engagement</b> in WASH service delivery	Provide technical and financial support, messaging to the community on the importance of water and WASH	The project uses the RANO HP project's communication tools "ataovy mazava ny kaonty" to support WSPs to convince communities of water and WASH's importance.	None
Accelerating <b>adoption of healthy behaviors</b> and use of WASH service	Include messages that emphasize communication/education/outreach activities around environmental compliance	<p>As stated and shared within the latest update of this EMMR, the project has reviewed the following IEC approaches and materials to adapt its activities to the Covid-19 outbreak context:</p> <ul style="list-style-type: none"> <li>- CLTS Covid-19 Guideline</li> <li>- VSLA Covid-19 Guideline</li> </ul> <p>At the same time, we outlined the "Go Green" tool used by RANO HP to convey the key messages of environmental compliance and investment security at sites where RANO WASH has financed constructions and sites where other project activities have influenced the completion of WASH infrastructure constructions.</p>	None

#### 4.0 CLIMATE RISK MANAGEMENT REPORT

Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
Activity I: Study and infrastructure preparation				
Technical feasibility study (APS) / Detailed design study (APD)	Well-scheduling the field study planning,	As in all previous fiscal years, field studies were initiated by BushProof & Sandandrano to consider the value of the minimum production capacity of water resources. However, all APS and APD studies have been completed. Some restitutions and validations of APD studies were delayed and continued for FY22 because their content raised questions that required further clarification from the point of view of the validation authorities: project staff, DREAH, Communes, and Communities.	None	None
	Well-scoping and specifying the needed data and computation model, If construction is included, that requires a design team or engineer. Construction activities should then consider climate risks during the design phase and be approved by relevant	A pool of RANO WASH technicians and the MoWASH are currently mobilized to verify each design's quality and ensure accurate data were used while modeling each water supply system.	None	None



Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
	design engineers or firms.			
	Cooperation with DGM and BNGRC.	This cooperation is mainly informational in implementing APS and APD studies. The project regularly carries out an informational watch with the BNGRC and the General Directorate of Meteorology to avoid planning studies during bad weather. And as mentioned in the EMMR table, the basic climate and weather data used to develop the APS and APD files come primarily from the weather stations. However, they are not widespread enough throughout Madagascar. Therefore, the data must be coupled with in situ observations of the project engineers and satellite observation data available online (TRMM <sup>1</sup> for rainfall data).	Local weather stations are often too far from the study areas to be representative and lack data. The best option used by the project partners was to use open-source satellite data that will have to be cross-referenced with point measurements made during the study phases.	None
	Cooperation with MEDD	Work closely with MEDD local representatives on sustainability and officiousness of reforestation activities to cope with landslides risks	None	None

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<sup>1</sup> TRMM is for Tropical Rainfall Measuring Mission - <https://trmm.gsfc.nasa.gov/>

Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
	Water tank systems should be provided for equipment and infrastructure linked to activities in areas exposed to drought.	<p>The design of drinking water supply, sanitation, and hygiene systems always considers unfavorable conditions. Thus, the water tanks are dimensioned according to the inflows during the low-water period, and the population's water needs to be served.</p> <p>The required storage volume is often estimated at 30% of the average daily consumption in peak season and peak days for the project horizon.</p>	None	None
<b>Activity 2: WASH service implementation</b>				
Infrastructure building	Well-scheduling the fieldwork planning and the infrastructure building,	Finally, the reason for the work preparation is reported for the next quarter. Regarding weather conditions, Q3 and Q4 are made of the dry season, suitable for building infrastructures.	None	None
	Use of adapted and suitable technical modeling	<p>The project follows the design and implementation of quality standards applicable to water construction in Madagascar.</p> <p>The main framework document is the procedures manual of the Ministry of WASH.</p> <p>Simultaneously, since PPP promotion is still relatively uncommon in water supply in Madagascar, concepts such as social and private connections in rural areas are still quite new. As a result, the designers (BushProof and Sandandrano) must adapt the technical bases of urban hydraulics to define the basic unit demand (daily water consumption per person) used to dimension pipes and tanks.</p>	None	None

Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
	Design a ground protection system and anti-erosion structures around the infrastructure,	The project is in the process of gathering elements to establish specific documentation related to erosion risk management.	Follow the updates on the construction	None
	Cooperation with DGM and BNGRC.	Apart from the earlier studies, no relevant collaboration opportunities have arisen for collaboration with the DGM. Regarding collaboration with BNGRC, this project supported victims after the cyclones in the Vatovavy Fitovinany, Atsinanana, Hautes Matsiatra, and Amoron'i Mania regions, providing basic hygiene kits, including water buckets, hand washing devices, soap, and portable water filters. In the same vein, key WASH messages were promoted.	None	None
<b>Activity 3: Gravity Water Infrastructure specific concern</b>				
Catchment: Dam, Surface water, or Piped source	Groundwater recharge by IWRM approach,	Within the framework of implementing activities related to setting up drinking water supply systems, watershed protection activities are necessary according to the classification of the perimeter.  The recurring problem at the project sites regarding water resource management is inappropriate land use in the watersheds of these resources. Agricultural activities by local people pose the greatest threat to the integrity	None	None

Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
		<p>of these watersheds and the sustainability of the associated water resources.</p> <p>As IWRM requires the intervention of the development, policy, and strategy sectors governed by basin agencies according to Decree 2003-191, which do not yet exist, the project only intervenes in managing water resources used for controllable WSS under PPP contracts.</p>		
	Well, selecting the site location,	<p>Each catchment facility has been designed and implanted, considering all environmental and climatic issues (flooded areas, landslides).</p> <p>The definition of the best location for each catchment structure implemented as part of the project is given in each APD of the corresponding water system.</p>	<p>A particular problem was observed in Amparafaravola. A landslide destroyed the Betatamo dam due to the sudden extension of a large erosion phenomenon (lavaka) in the vicinity. The project conducted a site visit and assessed the damage and the measures to be taken to restore the system and ensure the safety and durability of the water catchment structure. WSP was able to rehabilitate the damage as instructed in the diagnostic report issued by the project.</p>	None

Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
	Secured and well-dimensioned spillway and decanter (sand trap),	So far, the twenty-one works undertaken by the project exploit dams as catchment works have been designed and implemented to minimize erosion and upstream sediment accumulation risks. Each APD gives the methods for calculating the dimensions of each drainage structure and spillway, ensuring that the integrity of each structure is always preserved. Sandandrano and BushProof (designers of these structures) ensured quality control of the implementation.	None	None
Water treatment and filtering (and maybe the storage)	Water Quality control in WQAP Readjustment of water treatment and cleaning frequency	The water quality follow-up is still ongoing. It concerns in-situ testing with Del'Agua and IPM testing for completed construction works that have not yet been tested.	The project keeps monitoring water quality. It concerns in-situ tests with Del'Agua and IPM tests for completed construction works that have not yet been tested. The periodic monitoring of water quality carried out every three months and up to one year after the works is a real challenge for the project. The main cause is the current difficulty in obtaining in-situ analytical equipment on the one hand (imported equipment) and the difficulty in terms of planning and costs of moving laboratories when this is not possible. As a result, none of the intervention regions can maintain a regular monitoring rhythm.	We are still working on solutions to solve this problem and to be able to support the managers of the systems in place effectively. One proposed solution is working with local suppliers to replace losses and deficient equipment.

Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
Surface capture				
Capture: Dam, Well and Drain, Pumping	Well-dimensioning infrastructure using Climate Change monitored model	Each catchment structure was correctly dimensioned based on the contextual climatic data of each site. The related calculation notes are given in each corresponding APD. The dimensioning considers both water quality and seasonal variation in water quantity.	None	None
	Groundwater recharge by the IWRM approach	The project has trained several communes on the IWRM approach, particularly communal project management (MOC). Water resource management is currently one of the communal development plans on WASH (PCDEAH) priorities. However, the effective implementation of the planned measures still requires support from the project, especially for the sites that have financed WASH infrastructure construction.	None	None
	Using a secured and well-dimensioned spillway and grit chamber	All catchment works are equipped with pre-filtration devices. These devices are already provided for in the APDs and installed as planned. BushProof and Sandandrano oversee their construction. All dams of all types (concrete, earth, or hybrid) are equipped with spillways sized according to each region's climatic context to ensure the structures' durability.	None	None

Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
	Programming and organizing cleaning out	<p>In each ESF involving a catchment dam, cleaning upstream of each dam must be included in the WSP operation and maintenance routine to avoid accumulations of sediment harmful to the structure's performance. It may alter the quality of the water.</p> <p>The application of this measure was monitored for work in progress in FY21.</p>	None	None
Groundwater well or Drilling and Pumping system				
Capture: Well and Borehole	Well-dimensioning infrastructure using Climate Change monitored model	<p>For groundwater catchments, catchment designs are based on two points: (i) hydrogeological data and (ii) the results of geophysical surveys and exploratory drilling (including pumping tests).</p> <p>The hydrogeological data include seasonal variations in available storage based on the climatic contexts of each study area.</p> <p>Exploratory drilling and pumping tests were conducted to assess aquifer capacities and water quality for potential sites for pumped water supply systems in Vatovavy Fitovinany. These tests have been used to calibrate the sizing of the exploitation boreholes for the concerned sites.</p>	None	None
	Groundwater recharge by the IWRM approach	Training provided for communal staff and water system managers specifies that groundwater storage increases proportionally to the density of vegetation cover in the corresponding hydrogeological watershed. As mentioned	None	None

Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
		<p>above, the conservation and improvement of these watersheds to properly manage water resources in an integrated way are currently one of the priorities of each Commune we have trained in MOC.</p>		
	<p>Well-selecting infrastructure location and characteristics using climate change monitored model</p>	<p>The site's dimensioning and choice are strongly linked to wells and boreholes, as each structure is dimensioned according to its location. The locations are chosen according to the data provided by geophysical and hydrogeological studies and exploratory drilling. In choosing the right aquifer, the designers also propose appropriate solutions to ensure no external pollution intrusion can contaminate the structure's interior. A few sites in Vatovavy Fitovinany are the main potential for implementing this technology. We have documented the management of these climate risks from the design phase (APD and ESF).</p>	<p>None</p>	<p>None</p>
	<p>Researching other options for the very low-elevation village</p>	<p>Two options are currently proposed for sites where flooding is unavoidable: (i) installing waterproof pumping equipment or (ii) raising the pumping station or relocating the station's location to an area unaffected by flooding. In both cases, it must always be ensured that the well or borehole cannot be contaminated by flooding. Set up a sanitation area with a watertight opening.</p>	<p>None</p>	<p>None</p>



Project/Activity /Sub-Activity	Climate change risk addressing / Impact Mitigation	Summary Field Monitoring/Issues/Resolution	Outstanding Issues and proposed resolutions.	Observations and recommendations
		<p>Variants of scenarios are proposed in the APS, and the best technically feasible, sustainable, and economically viable solution will be chosen.</p> <p>For example, this was the case of Lokomby, where it was decided to install as much waterproof pumping equipment as possible. The system was severely affected by the cyclone in Q2.22, but the catchment was able to resist</p>		
Community-Led Total Sanitation (CLTS)				
Trigger to Open Defecation Free (ODF)	Well-communicating and inciting	<p>During triggering sessions and Follow-Up Mandona (FUM) activities, communities were reinforced to understand the faeco-oral transmission chain more, especially during the rainy season. (examples: location of latrines, protection of well, promotion of an ecosan latrine model to protect groundwater)</p>	None	None

## 5.0 ATTACHMENTS

- EMMR Annex 1: HYBRID DAMS AND HILLSIDE RESERVOIRS
- EMMR Annex 2: HEALTH AND SAFETY POLICY AND USE OF PERSONAL PROTECTIVE EQUIPMENT FOR PREVIOUS PROJECT SITES
- EMMR Annex 3: LAND EXPROPRIATION PROCEDURE
- EMMR4 Annex 4. SUMMARY OF THE WATER QUALITY TESTING RESULTS

## USAID REVIEW OF EMMR

Approval: \_\_\_\_\_  
[NAME], Activity Manager/A/COR [required] Date

Clearance: \_\_\_\_\_  
[NAME], Mission Environmental Officer [as appropriate] Date

Clearance: \_\_\_\_\_  
[NAME], Regional Environmental Advisor [as appropriate] Date

Concurrence: \_\_\_\_\_  
[NAME], \_\_\_\_\_ Bureau Environmental Officer [as appropriate] Date

## DISTRIBUTION:

## **EMMR ANNEX I: HYBRID DAMs AND HILLSIDE RESERVOIRS**

### **Introduction**

First, it is always necessary to recall both the RANO WASH project's objectives and orientations and the MEAH and GOM. Indeed, most of our actions, especially the works that need to be documented, are essential for achieving our objectives and respecting our orientations.

Regarding studies (APS/APD/ESF), the actions implemented in the RANO WASH project consider social, economic, technical, and environmental aspects for designing, implementing, and monitoring WASH infrastructures. These constructions, guaranteeing access to WASH, lead us towards our global objectives (Health, Food Safety, Environmental Protection) and complementary strategic objectives (SO1, SO2, SO3).

Besides, the scope and scale of our infrastructures are in line with the project horizon (2038) and the indicators to be achieved in terms of access to WASH (ODD 6: 100% access rate to drinking water by 2030, MEAH performance contract: 70% access rate by 2023).

As we aim for the long term, the construction to be planned will have to be proportional to the increasing demands while considering the availability, quality, and quantity of the existing water resources. Indeed, due to climate change, global warming, and environmental degradation, no water resource in its natural state can immediately satisfy the water needs of the growing population, either in terms of quantity or quality. The flow of resources has considerably decreased while the accelerated urbanization of cities pollutes most rivers. As an illustration, we are targeting to give access to drinking water to 300,000 people who consume, on average, 30l/day/inhabitant, i.e., to satisfy this demand, we need to produce at least 9,000,000 liters (9,000 m<sup>3</sup>) of drinking water per day for very short-term needs.

Given this information, it is necessary to design artificial hillside reservoirs to guarantee water resource availability and sustainability. Considering the environmental and socio-economic constraints, the feasibility of these reservoirs is ensured by the "Hybrid Dam" (See Technical Data Sheet on Hybrid Dam).

It is useful to highlight the areas occupied by the various structures and the areas flooded by the new hillside reservoirs to demonstrate the positive impacts and the absence of major negative impacts of the WASH infrastructure.

**SURFACES OCCUPIED BY EACH WORK – FORMERLY BUILT INFRASTRUCTURES**

Sites	Works	Length (m)	Width (m)	Radius (m)	Base (m)	The surface occupied by the works (m <sup>2</sup> )	Total surface (m <sup>2</sup> )
Niarovana Caroline	Hybrid dam of Ambodiriana	50			10,93	546,5	<b>5 473,79</b>
	Hillside reservoir					4 750,0	
	Treatment plant	16,82	3,9			65,6	
	10m <sup>3</sup> Bonaka water tank	4,4	4,4			19,3	
	40m <sup>3</sup> Niarovana water tank			4,7		69,3	
	Operating building	3	2			6,0	
	MultiPECs	3,9	4,35			16,9	
For a Watershed of 13,700 m <sup>2</sup> , the Niarovana Caroline reservoir occupies only 4,750 m <sup>2</sup> , i.e., 34% of the watershed.							
Betatamo	Betatamo Hybrid Dam	120			11,93	1 431,6	<b>30 724,20</b>
	Hillside reservoir					29 132,0	
	Treatment plant	16,86	3,3			55,6	
	140m <sup>3</sup> Betatamo water tank	8	8			64,0	
	Monobloc	6,4	6,4			40,9	
For a Watershed of 350,000 m <sup>2</sup> , the Betatamo reservoir occupies only 29,132 m <sup>2</sup> or 8% of the watershed.							
Foulpointe	Ranomainty Hybrid Dam	110			11,35	1 248,5	<b>24 561,34</b>
	Hillside reservoir					23 265,0	
	Prefiltration unit downstream of the dam	7,75	1,3			10,0	

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Sites	Works	Length (m)	Width (m)	Radius (m)	Base (m)	The surface occupied by the works (m <sup>2</sup> )	Total surface (m <sup>2</sup> )
	Sahorana Well			0,75		1,7	
	Treatment plant	6	6			36,0	
For a watershed of 60,000 m <sup>2</sup> , the Ranomainty reservoir occupies only 23,265 m <sup>2</sup> , i.e., 39% of the watershed.							

**SURFACES POTENTIALLY OCCUPIED BY EACH STRUCTURE – NEW PROJECTS**

Sites	Works	Length (m)	Width (m)	Radius (m)	Base (m)	The surface occupied by the works (m <sup>2</sup> )	Total surface (m <sup>2</sup> )
Soanindrarinny	Itendro's hybrid dam	92	8,6			791,2	<b>2 864,91</b>
	Hillside reservoir					1 600,0	
	Downstream path layout	41	6,5			266,5	
	Frame gable	16,7	6,6			110,2	
	95m <sup>3</sup> existing water tank			3,3		34,1	
	10m <sup>3</sup> new water tank			1,7		9,0	
	Treatment plant	14,9	2			29,8	
	Operating building	3	2			6,0	
	MultiPECs	3,2	2,9			9,2	
	Sanitary block in the CSBII	3,2	2,7			8,6	
For a watershed of 250,000 m <sup>2</sup> , the Itendro reservoir occupies only 1,600 m <sup>2</sup> or 1% of the watershed.							

This table shows that, apart from the impacts of the construction of hybrid dams, i.e., the surface area of the water body formed upstream, the work's overall scale remains in the "very small-scale construction" since it never exceeds the recommended 1000m<sup>2</sup>. This assessment includes the surface area of the dams.

From the project's perspective, these reservoirs are not part of the works' disturbances and are harmful to the environment. Rather, they result from directly implementing climate change adaptation measures to compensate for water resource depletion.

The next analysis (below) will show that implementing a retention basin has more positive than negative impacts that can be controlled under conditions.

## PREVENTIVE MEASURES APPLIED TO CONTROL THE IMPACTS OF HILLSIDE RESERVOIRS

- On biodiversity

Constructions are implemented in the part of the watershed home to the least fauna or flora to minimize biodiversity impacts. Dams are built on rice fields or in the bed of a stream.

SITES	AREAS FLOODED BY THE RESERVOIR
Foulpointe	Rice fields and swamp
Niarovana Caroline	Swamp
Betatamo	Extended existing lake
Morarano Chrome	Riverbed
Ambohitsimanova	Riverbed
Soanindrariny	Swamp

The flooded part is targeted not to contain (or the minimum). The rare or endemic plants are, as much as possible, moved near the new reservoir to both preserve them and strengthen the reforestation of the watershed;

All these reservoirs are not home to rare or endemic animal species. Since the new artificial lake's gradual filling, the animals there travel naturally away.

The representation below shows the Commune's location of Soanindrariny and the construction of the new Itendro hybrid dam compared to the nearest protected areas. The map shows that the nearest protected area is about 30Km from the site.

- On Ecosystems

Overall, the ecosystem is protected and beautified by a new water body; even the water balance improves since the new lake enhances precipitation. The setting up of protection perimeters (immediate, close to the watershed) protects and improves flora and fauna by prohibiting all polluting activities (cattle grazing, charcoal wood exploitation, deforestation, ...).

When the project sets up a catchment work, it also sets up three types of protection perimeter:

- An immediate protection perimeter will be installed directly around the structure and the small ancillary structures (loading chamber, pre-filtration basin), which will be fenced off as far as possible;

There will be a close protection perimeter, where signs prohibiting entry will be posted, and access will only be restricted to maintenance personnel. It is generally within this perimeter that embellishment activities are undertaken (see photos at the end of this document);

- An extended protection perimeter encompasses the entire watershed, where communal legislation will govern land use rights to ensure its protection and conservation. The protection measures encompass two main aspects: (i) the protection of the water resources of the watershed from depletion and pollution and (ii) the soil's protection from the risk of erosion. As a result, human activities are regulated to improve the plant cover of the watershed.

- On Soils



Soils occupied during the work are grassed or replanted after the construction site. No polluting agents are used during all phases of construction.

- On groundwater

Groundwater is not affected by the construction. Rather, the recharge of the water table is guaranteed by the protection of the watershed.

The following photos show commitment letters from landowners in the Ampantsona watershed, Commune of Anosibe Ifody, Alaotra Mangoro Region. For this example, ten people use land within the extended protection perimeter of the watershed, and each owner commits to:

- Not to carry out any environmentally damaging activity in the watershed, including slash-and-burn agriculture, and not to cut down any trees;
- Not to create pollution by using pesticides and chemical fertilizers when growing crops.
- Collaborate with the Commune and its local partners and project on all watershed improvement initiatives (e.g., planting fruit trees)

At the end of each commitment letter, the land and the improvements made remain the property and are for the landowner's sole benefit.



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FARITRA : ALAOTRA MANGORO  
DISTRIKA : MORAMANGA  
KAOMININA : ANOSIBE IFODY  
FOKONTANY : AMBODINIFODY

REPOBLIKAN'I MADAGASIKARA  
Fitiavana-Tanindrazana-Fandrosoana

**Antony:** FIFANEKENA HO FIAROVANA  
NY SAHADRIAKA (Bassin Versant)  
ao AMPANTSONA

Izaho,

Anarana sy fanampiny: Rambaraniso Dauphin  
Fonenana: Andrika Fokontany: Ambodiniody  
Tompon'ny kara-panondro laharana: \_\_\_\_\_  
nomena tamin'ny: 21 Fevrier 1983 tao Anosibe ifody

Dia manaiky ny lamin'asa rehetra izay apetraky ny Kaominina ANOSIBE IFODY, mba ho fiarovana ny SAHANDRIAKA, izay mamatsy ny rano fisotro ho an'ny Mponina ao amin'ny Fokontany AMBODINIFODY sy ny manodidina.

KA NOHO IZANY:

- 1- Manaiky zahay tompon'ny tany fa tsy hanimba ny tontolo iainana ao an-toerana, tsy handoro, tsy hanimba ny ala vaventy rehefa manajary ny taninay
- 2- Manaiky ihany koa izahay fa tsy hanaparitaka loto, tsy hampiasa poizina na zezika simika rehefa mamboly.
- 3- Manaiky ary vonona ihany koa izahay tompon'ny tany handray ny toromarika sy ny tetik'asa fanatsarana izay entin'ny Kaominina na ny Mpiara-miombon'antoka eny an-toerana (ohatra fambolena hazo fihinamboa)

Marihina fa ny tany sy ny asa fanatsrana natao eny an-toerana dia mijanona hoan'ny Tompon'ny tany irery ihany.

Natao izao "Fifanekena izao" mba hanan'ny kery ary anaovanay sonia eto ambany

Anosibe Ifody, faha 15 JUL 2019

NY TOMPON'NY TANY

Dauphin

NY KAOMININA



RANDRIANARIVELO Justin  
Maire de la Commune

### **PREDICTIVE PROTOCOL TO BE ADOPTED IF, IN THE WORST-CASE SCENARIO, THE DAM WERE TO FAIL (BE DESTROYED)**

Upstreaming the dams (volume and base area) was calculated to contain the necessary volume of water concerning the storage needs. For maximum safety, the spillways are dimensioned to discharge and withstand the 100-year flood, i.e., a 100-year return period flood. The advantage of ferrocement is that it is monolithic, i.e., the reinforcement along the whole dam is solid and connected, thus eliminating any breakage risk.

Most areas downstream of the dam are not urbanized but are occupied by empty land or crops (rice fields, etc.). In the case of a break, no major damage will be feared.

The private operator will be strongly advised to control the dam's water level during operation, especially during the rainy season. Thus, as soon as the water level rises, it will be advised to open the spillways and outlets to avoid flooding the structure.

### **SAFETY AND QUALITY CONTROL PROTOCOLS FOR CONSTRUCTION DURING THE IMPLEMENTATION PHASE OF THESE ACTIVITIES**

During the supervision of works, the application of safety protocols, and the quality control of the constructions, are ensured by the project manager, who will have a permanent works supervisor on-site to monitor all activities. The works supervisor reports daily and in real-time on the activities carried out through writing and photo-illustrated reports that he sends to the project manager's technical responsible. The design and control engineer will also make systematic field visits to ensure the proper conduct of the work from the start until the provisional acceptance of all the work.


### **HOW TO ENSURE THAT THE REMOVAL OF BACKFILL DOES NOT SIGNIFICANTLY IMPACT SURROUNDING ECOSYSTEMS?**


The borrowing area's choice is made as far as possible because the reservoir will flood in the dam's left and right banks to minimize the excavation of sensitive ecosystems.

### **PROVIDE EVIDENCE THAT THE ACTIVITIES DO NOT NEGATIVELY IMPACT ENDEMIC SPECIES (FAUNA AND FLORA).**


Endemic species are further protected by the reservoir's presence and the protective perimeters limiting access to visitors. For Foulpointe, wild ducks, snakes, birds, and eels have entered within the immediate protection perimeter due to the water body's presence. Similarly, through this protection, we saw the reappearance of endemic trees (*Dalbergia louvelii*) in the watershed that was overexploited before the watershed was protected by prohibiting all deforestation and bushfires charcoal-making activities. The forest is becoming denser and more diversified, favoring the installation and multiplication of fauna.

**EXTRACT OF ENVIRONMENTAL MITIGATION AND MONITORING REPORT**


Mitigation measures	How was this implemented [insert photos where relevant]?
<p>Earthworks should be limited to construction site areas only.</p>	<p>This mitigation measure has been respected.                      No bare soil has been observed in the new structures' vicinity because the excavated surface has been limited to the area necessary to install the structure.</p>
<p>Replanting grass around structures to compensate for vegetation losses.</p>	<p>All the perimeters surrounding the works have been embellished with native plants (See Ilaka Est's Photos).</p>  <p>The photograph shows a blue-painted structure, possibly a water kiosk or small shop, with solar panels on its roof. It is situated in a lush green area with a blue fence around it. A paved road is visible to the left. The surrounding vegetation is dense and green, indicating successful replanting.</p>
<p>Sensitize people to reuse the biomass resulting from vegetation losses for useful purposes, avoid uncontrolled burning</p>	<p>Vegetation losses were used as fertilizer for the newly replanted plants. The Watershed vegetation has become denser by implementing protection perimeters because deforestation and coal mining are now banned from the area.</p>

Mitigation measures	How was this implemented [insert photos where relevant]?
<p>To minimize erosion risk, planting grass or compacting bare soil left behind by construction.</p>	<p>The bare parts of the structures were grassed over, especially the dam's earthen part (See the below Foulpointe's Dam body photo).</p> 
<p>Set up a dumpsite to avoid scattering debris/construction site waste that is a source of pollution.</p>	<p>This measure was applied during the work, and no non-biodegradable waste was present on each construction site.</p>
<p>Marking construction sites as off-limits to non-workers</p>	<p>This measure has been undertaken by fencing, and awareness-raising has been done to limit access to the structures (see the below photo of Androy).</p>

Mitigation measures	How was this implemented [insert photos where relevant]?
	 An aerial photograph showing a newly constructed water storage facility. The facility consists of a large, circular, blue and white water storage tank situated within a rectangular concrete enclosure. The enclosure has a white top and blue base. To the right of the enclosure is a brick building with a corrugated metal roof. The surrounding area is dry and dusty, with some sparse vegetation. A person is visible near the bottom of the enclosure. The photo is credited to 'RANO WASH' in the bottom right corner.


Mitigation measures	How was this implemented [insert photos where relevant]?
<p>Placing warning signs - safety tapes - signs to warn passersby of the dangers of construction sites for non-professionals</p>	<p>Warning signs were placed in the vicinity of the structures prohibiting access to all visitors even after construction.</p> 
<p>Ensure no wood has been acquired from a non-sustainable origin (the seller must have a logging and timber resale permit or equivalent).</p>	<p>No wood was used to realize the ferrocement works since this technology does not require formwork.</p>
<p>Select a borrowing area for backfill that does not contain or belong to a sensitive ecosystem, does not harbor or endanger protected species</p>	<p>The borrow zone was chosen on a surface that will be flooded in the impoundment. (See the below Photos of the Foulpointe borrowing area situation before and after extraction of the backfill.)</p>

Mitigation measures	How was this implemented [insert photos where relevant]?
	 <p>Photo of the borrowing area during the construction when it was still active</p>


Mitigation measures	How was this implemented [insert photos where relevant]?
	 <p>Photo of the borrowing area, which is currently covered underwater with vegetation starting to grow in the embankment</p>
<p>Ensure that the selected borrowing areas are properly secured during operations to avoid accentuating erosion phenomena.</p>	<p>The borrowing areas have been laid out so that no erosion is caused during and after the work.</p> <p>In the case of Foulpointe, it is the dam itself that protects the slope from erosion.</p> <p>In Niarovana Caroline's case, the backfill was not taken from the lake's bank but from an upstream plateau that stabilized to prevent collapse. As in the case of Foulpointe, this borrowing area ended up underwater once the structure was completed. Since the lake serves as a buffer basin for peak floods during the rainy season, the runoff's speed is unlikely to cause hydraulic erosion.</p>



Mitigation measures	How was this implemented [insert photos where relevant]?
After completing backfill extraction, ensure that eroded borrow pits are contoured, bare soil compacted and covered vegetation.	Bare soil was compacted after excavation.
Ensure that the earth portion of the dam is well compacted in an overlying compaction layer.	The soil was compacted in layers of 25 cm for optimal compaction.
Ensure that the Manager (included in his training) carries the sediment's regular dredging to avoid sand and mud accumulation upstream of the dam, particularly during the rainy season.	This measure has been achieved and included in their maintenance schedule.
Ensure no leaks from the dam are uncommon and the ferrocement wall is watertight.	This measure was checked several times during the monitoring, supervision, and acceptance phases (technical, provisional, and final).
Ensure that the construction of the dam meets the quality standards defined in the APD	The following photos show an example of a site meeting minutes. Sandandrano, project manager, gave instructions to EGC Tamby, holder of the Betatamo Amparafaravola works on the reinforcement structure ferrocement veil of the Betatamo dam, at a meeting on August 04, 2020. These concerned persons meet periodically during the contradictory metering phases in the communal authorities' presence to establish the works' progress.



**USAID**  
FROM THE AMERICAN PEOPLE



**RANO WASH**  
Rural Access to New Opportunities  
in Water, Sanitation, and Hygiene

Projet : USAID RANOWASH

Intitulé : GESTION – INVESTISSEMENT ET/OU CONSTRUCTION DU SYSTEME D’ALIMENTATION EN EAU POTABLE D’AMPARAFARAVOLA

Maître d’Ouvrage :	Commune Rurale AMPARAFARAVOLA
Maître d’Ouvrage Délégué :	WaterAid Madagascar
Titulaire :	Entreprise EGC TAMBY
Maître d’œuvre :	Entreprise SANDANDRANO

Objet : PV de réunion Date : 04 août 2020

Date OS : 28 mars 2020

Etaient présents :

- RAJÉNANASOLO Isiry Sambatra (adjoint)
- RANDRIAMBAKANGENA Jean Jacques (ATEAM)
- RANDRIAMBAKANGENA Sandrine Olivette (E.2. RW)
- RABÉARINJANA Estel (TA)
- RAFANOHENTSOA Tsjeunina Fivandriana (surveillance)
- ANDEIANDRISA Rajanah Rahina (CT)

Voir fiche de présence

- AVANCEMENT (%) : 78,5%
- PERSONNELS :





CT : 06	CC : 08	OS : 24	MO : 61
---------	---------	---------	---------

- MATERIELS :

Voiture de transport ; GPS ; Groupe électrogène ;

- REMARQUES :

- Blocage des gens pour la canalisation (partie de Besandry)
- La remise à l'état de pavé ne correspond pas à l'état initial
- Remarque au barrage : utilisation de fer 4H12 pour la longueur développée et fer 4H6 pour le cadre



RECOMMANDATIONS :

- Descendre sur terrain et représentant de la commune pour résoudre le problème pour la canalisation
- améliorer et améliorer la remise à l'état de pavé
- Ne modifier pas le dimensionnement de serraillage pour le poteau (utilisation de fer 4H<sub>12</sub> longueur développée et fer 4H4 pour le cadre au barrage à statisme)



Le Maître d'Ouvrage  
 RAOULO Tsiry Sambatara

Le Maître d'Ouvrage Délégué

*[Signature]*  
 RANIBIRIANA NANTENANA  
 Sandrine Rivetti

Le titulaire

*[Signature]*  
 RAO RAOLO TSYRY


Le Maître d'oeuvre

*[Signature]*  
 RAPA WONE SANDRINA  
 Fivandiana

TA S&P/PSKM RANO WASH

*[Signature]*  
 Rabemirajaka Sitaka



Mitigation measures	How was this implemented [insert photos where relevant]?																																										
	 <p><b>FICHE DE PRESENCE</b></p> <ul style="list-style-type: none"> <li>Objet: Réunion de CRANTIER</li> <li>Date: 14/01/2022</li> <li>Lieu: C.V. Ampangomaha</li> </ul> <table border="1"> <thead> <tr> <th>N°</th> <th>Nom et Prénoms</th> <th>Sexe (H/F)</th> <th>Entité / Responsabilité</th> <th>Contact et Tél</th> <th>Signature</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>RANOMANTANA ROS Tjoniama Fondateur</td> <td>H</td> <td>Coordinateur Bambakara</td> <td>034 02 840 86</td> <td></td> </tr> <tr> <td>02</td> <td>RANORAMANANTENA Jean Jacques</td> <td>H</td> <td>ATFAH EU 4/Volky</td> <td>034-12-595 05</td> <td></td> </tr> <tr> <td>03</td> <td>RANORIS MANANTENANA Sandrine Eliette</td> <td>F</td> <td>Responsable de zone Amperangomaha Projet RANORAMA</td> <td>068-94 385 59</td> <td></td> </tr> <tr> <td>04</td> <td>RARENASOLO Tely Sambelaha</td> <td>H</td> <td>Coopérative de C.V. Samba</td> <td>034 02 429 99</td> <td></td> </tr> <tr> <td>05</td> <td>ANDRIANIRITA Rahona Rajarant</td> <td>H</td> <td>CE AMPANGOMAH</td> <td>034 02 400 86</td> <td></td> </tr> <tr> <td>06</td> <td>Andriamirana Eliette</td> <td>F</td> <td>TR Ampangomaha</td> <td>034 02 177 20</td> <td></td> </tr> </tbody> </table>	N°	Nom et Prénoms	Sexe (H/F)	Entité / Responsabilité	Contact et Tél	Signature	01	RANOMANTANA ROS Tjoniama Fondateur	H	Coordinateur Bambakara	034 02 840 86		02	RANORAMANANTENA Jean Jacques	H	ATFAH EU 4/Volky	034-12-595 05		03	RANORIS MANANTENANA Sandrine Eliette	F	Responsable de zone Amperangomaha Projet RANORAMA	068-94 385 59		04	RARENASOLO Tely Sambelaha	H	Coopérative de C.V. Samba	034 02 429 99		05	ANDRIANIRITA Rahona Rajarant	H	CE AMPANGOMAH	034 02 400 86		06	Andriamirana Eliette	F	TR Ampangomaha	034 02 177 20	
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<p>Ensure that the spillway is positioned so that no flood peak can ever flood the earth's dam body</p>	<p>This measure was achieved and verified during the last rainy season.</p>																																										
<p>Ensure the formalization of land expropriations as a condition for starting construction work. This formalization includes signing land transfer files between the titled owner and the Commune, which must be formalized at the BIF (local land registry office) level.</p>	<p>The Ranomainty dam was already an existing dam extended, so the land was already the Commune's property. The same goes for Betatamo lake. All that had to be done was to monitor the upstream watershed protection measures with the land users.</p>																																										

Mitigation measures	How was this implemented [insert photos where relevant]?
<p>Depending on the case, negotiations must be conducted to establish compensation for land expropriations. The Commune is primarily responsible for this activity, but the project must support it in this process.</p>	<p>For Niarovana Caroline, a negotiation with the owners was carried out before starting the work, and the Commune carried out the compensation and expropriation part.</p> <p>An expropriation procedure was conducted. To do this procedure, the Commune was supported by the project and the regional authorities in Atsinanana. As the procedure was long, the Commune and the region committed to completing the formalization, allowing the WSP to start the work.</p>
<p>Ensure that land expropriations do not have negative impacts on food security. If necessary, the land's former owner must be compensated (permanently) for losses incurred.</p>	<p>For the 3 cases, Betatamo, Ranomainty Foulpointe, and Niarovana Caroline, there were no nutritional plantations upstream of the works before implementation. Therefore, the implementation of the constructions had no impact on food security.</p>

### CURRENT OVERVIEW OF NIAROVANA CAROLINE AND BETATAMO HYBRID DAMS





*Figure 2: Hillside reservoir in Niarovana Caroline*



*Figure 3: Hybrid dam of Betatamo*



## EMMR ANNEX 2: HEALTH AND SAFETY AND USE OF PERSONAL PROTECTIVE EQUIPMENT FOR PROJECT SITES

### Site management

- Ensure site boundary is well-marked and access actively controlled.



The picture opposite shows one of the catchments of Antsoatany, the Vakinankaratra region.

The local population has been informed that only qualified workers, here in fluorescent vests, can enter behind the security tape.

The installation of a water supply system is subdivided into several work sites. Since the sites are relatively far from the dwellings, these tapes are sufficient to discourage people from approaching.

- Implement good housekeeping practices and ensure the site is maintained in a generally orderly condition.

Embellishment work undertaken around rehabilitating the existing Ilaka Est Treatment station, Atsinanana region, shows that the site is currently well organized.



- Post safety signs and posters, including, at a minimum, signs to mark site boundaries, hardhat areas, explosion risks, and toxic hazards

	<p>The most frequently used construction worksites are the areas where the pipelines run. These areas are often located along roads, as in Androy, in the Haute Matsiatra region.</p> <p>Visible signs have been installed to warn passersby (cars and people) of the construction site's dangers, even if the risks are low. The excavation work is linear.</p>
--	--

- Ban smoking altogether on the site, or restrict it to a designated smoking area well away from flammable materials


No flammable materials have been used in the work that the project has put in place.

### Hygiene and first aid

- Require that first aid kit(s) are on-site, as is someone familiar with their use and trained in basic first aid

	<p>Example: first aid kit and generic medicines in the camping hut for the workers on the Lokomby construction site, Vatovavy Fitovinany region.</p>
---	--


- Provide drinking water and sanitary facilities, including a hand-wash station




	<p>Example: A hand washing device installed on the job site to wash hands before taking a coffee break or lunch. The water is drawn from a well at the Lokomby fokontany center after disinfection by Sur'eau (a locally available sodium hypochlorite solution).</p>
---	---

- Require all workers to have an up-to-date tetanus vaccination  
Documentation is being collected.

**Personal Protective Equipment (PPE)**

Require the following equipment to be supplied as specified and its use enforced:

EQUIPMENT	WHEN USE IS REQUIRED	HOW WERE THESE MEASURES APPLIED ON THE JOB SITE
<p>Hardhats</p>	<p>Required whenever flying debris may be generated (as in demolition) or there is a risk of tools, materials, or objects falling from a head height or higher</p>	 <p>The photo shows Androy's construction, where the workers had to work at height and move materials and equipment from the bottom to the top and vice versa.</p> <p>They were all obliged to put on a hard hat to protect themselves from the risk of falling into hazardous objects.</p>
<p>Footwear providing reasonable protection</p>	<p>All workers at all times  (For example, foam flip-flops are NOT acceptable. Sandals made from scrap tires are.)</p>	<p>So far, no injuries due to sole puncture have been observed on construction sites.</p>

EQUIPMENT	WHEN USE IS REQUIRED	HOW WERE THESE MEASURES APPLIED ON THE JOB SITE
<p>against sole puncture</p>		 <p>The Morarano Chrome worker puts on shoes that protect him against sole puncture</p>
<p>Hard-toed boots</p>	<p>All workers engaged in excavation, demolition, or working around heavy equipment.</p>	 <p>Worker in Morarano Chrome with hard-toed safety shoes.</p>
<p>Respiratory protection</p>	<p>2-strap N95* dust mask or better when mixing Portland cement, polishing, or cutting concrete or stone.</p> <p>2-strap N95 dust masks or better for ANY WORKER desiring to use them</p> <p>Activated-carbon half-mask respirator when using highly volatile solvents (e.g., contact cement)</p> <p>See respiratory protection recommendations for leaded</p>	

EQUIPMENT	WHEN USE IS REQUIRED	HOW WERE THESE MEASURES APPLIED ON THE JOB SITE
	paint or Asbestos in the Asbestos and lead-paint annexes to this guideline.	
Hearing protection	Mandatory for all workers using powered tools or working near these operations	All RANO WASH work is done manually and does not use equipment that could affect workers' hearing or neighboring populations.
Safety glasses	All workers engaged in demolition, grinding, cutting, using power tools, or working near these operations	All RANO WASH work is done manually and does not use any electrical cutting equipment requiring safety glasses.
Reflective vests	Mandatory for all individuals working in proximity to heavy equipment and during demolition	<div> </div> <p>                             Workers who worked in Morarano Chrome wore reflective vests. Site workers always wear these jackets.                         </p>

**Working at heights (scaffolds and ladders)**

- Scaffolding must carry at least four times its maximum intended load without settling or displacement.



Here, the Morarano Chrome dam scaffolding has been properly constructed to support the working personnel and the materials used (civil engineering). No accidents were identified throughout the implementation of the work.

- Scaffolding must be on solid footing – footing may not use boxes, loose bricks, stones, etc.

As shown in the photo opposite, during the ferrocement tank construction in Ampasimadinika, Atsinanana region, the formwork and scaffolding are firmly anchored in the solid ground.



- Scaffolding must have guardrails, mid-rails, and toeboards.

No photo is available at the moment. We will make sure to document the work in progress where relevant.

- Scaffolding is at least 3 m from any electric power line

All project interventions have been carried out in non-urbanized areas with no electrical wires nearby.

- Scaffolding must be inspected each day by a competent manager

Sandandrano and BushProof supervisors ensure that workers comply with safety measures at all construction sites, including risks related to potentially dangerous scaffolding.

- Guardrails, or at least ropes, are placed near the edge of floors and roofs where a drop is greater than 2 m. Workers in these areas wear a body harness and rope if not possible.

No photo is available at the moment. We will make sure to document the work in progress where relevant.

- Scaffolds should be provided with safe access, such as stairs, ladders, or ramps.


See photo below

- Ladders should be secured against accidental movement.

The adjacent picture shows that the ladders are always attached/nailed securely to the scaffolding to prevent accidental movement.



The timber used in constructing scaffolds should be straight-grained, sound, and free from large knots, dry rot, wormholes, and other defects likely to affect its strength.

	<p>In the filtration plant construction 4 m above ground (Lokomby), scaffolding was installed to facilitate the implementation. The wood used for the scaffolding was chosen for the following criteria: straight, free of large knots, and strong to support the entire implementation.</p>
---	--

- Where necessary, boards and planks used for scaffolds should be protected against splitting.

No photo is available at the moment. We will make sure to document the work in progress where relevant.

- All scaffolds and appliances used as supports for working platforms should be sound construction, have a firm footing, and be adequately strutted and braced to maintain their stability.


No photo is available at the moment. We will make sure to document the work in progress where relevant.

### Working in excavations/trenches

- Keep spoils at least 1 m back from the edge of a trench.

Most of the trenches dug for the project are mainly those where the pipelines are installed. These trenches are backfilled directly after the installation of the piping. We will document this process for the other excavations, mainly for latrine pits/septic tanks.

- Shore or slope the trench wall for ANY trench 1.75 m or deeper.

	<p>The photo opposite shows the borrowing area on the bank of the new hybrid dam of Ranomainty, Foulpointe, Atsinanana region. The embankment has been inclined to stabilize it.</p>
---	--

- Provide a means of exit (ladder, stair, ramp) at least every 10 m.

Not applicable to the project's work so far, there has never been a deep and long trench to endanger the workers.

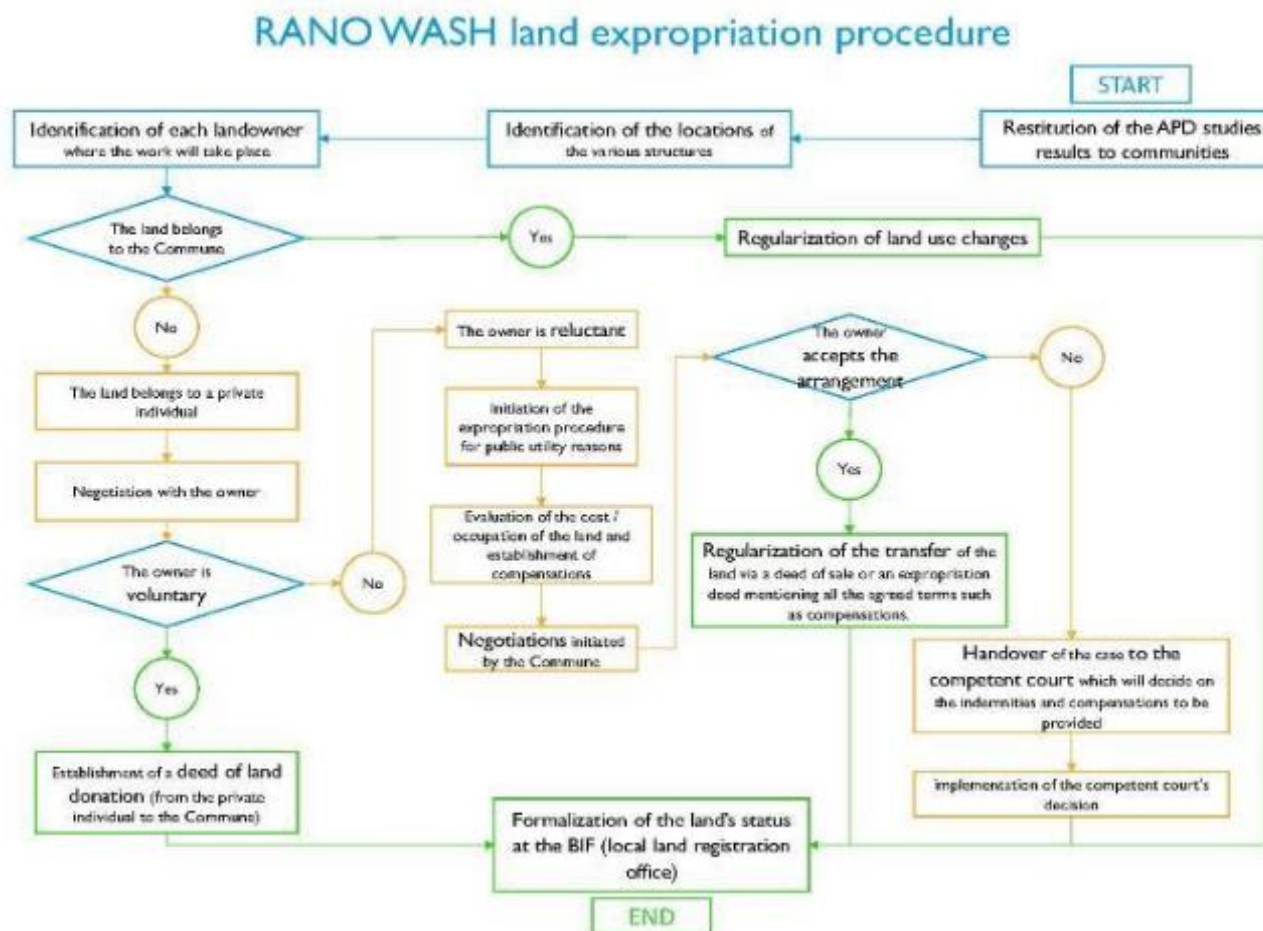


The photo above shows trenching work to install water supply pipes in the rural Commune of Antsoatany.



### EMMR ANNEX 3: LAND EXPROPRIATION PROCEDURE

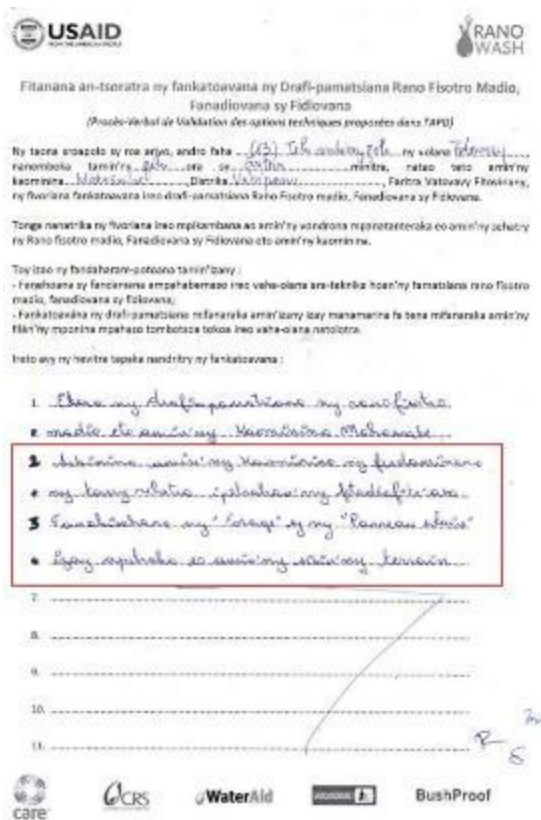
The following diagram shows the procedure used by RANO WASH to support the Commune in land expropriations useful for implementing new WASH infrastructures.



The following scans show examples of the first steps taken during reporting APD studies' results.

During this phase, beneficiary communities have been informed of the best locations selected in the APD for all infrastructures. As far as possible, the project has always tried to find the possibility of installing these infrastructures on state-owned land or land belonging to the Commune and not to a private individual.

However, when it was not possible to avoid privately owned land, the project has always prioritized voluntary private individuals, where expropriation had caused the minimum possible problem.



The above scans show, for example, the minute of restitution and validation of the Mahasoabe APD in the Vatovavy Fitovinany region, where the potential location of the works was shared with the communities and communal authorities. At the end of this intervention, a problem related to the land's nature (coffee field) was identified for the catchment work. Beneficiaries were generally reluctant to use the land to install the borehole and the solar panel field. As a condition for starting the work, the communal authorities and the communities were informed that land expropriations had to be regularized first. As the contract manager, the Commune has guaranteed to undertake the necessary negotiations with all the land-required owners to follow up on this condition. These negotiations are still ongoing under the project's support.



Fitanana an-tsoratra ny fankatoavana ny Drafy-pamatsiana  
 Rano Fisotro Madio, Fanadiovana sy Fidiovana

(Procès-Verbal de Validation des options techniques proposées dans l'APD)

Ny taona roapolo sy roa arivo, andro faha fitoambianifolo ny volana Jona,  
 nanomboka tamin'ny 15 ora sy foloany minitra, natao teto amin'ny  
 kaominina MAROMIANDRA, Distrika Antro, Faritra Vatovavy Fitovinany,  
 ny fivoriana fankatoavana ireo drafy-pamatsiana Rano Fisotro madio, Fanadiovana sy Fidiovana.

Tonga nanatrika ny fivoriana ireo mpikambana ao amin'ny vondrona mpanatanteraka eo amin'ny sehatry  
 ny Rano fisotro madio, Fanadiovana sy Fidiovana eto amin'ny kaominina.

Toy izao ny fandaharam-potoana tamin'izany :

- Fanehoana sy fandaniana ampahabemaso ireo vaha-olana ara-teknika hoan'ny famatsiana rano fisotro madio, fanadiovana sy fidiovana;
- Fankatoavana ny drafy-pamatsiana mifanaraka amin'izany izay manamarina fa tena mifanaraka amin'ny filàn'ny mponina mpahazo tombotsoa tokoa ireo vaha-olana natolotra.

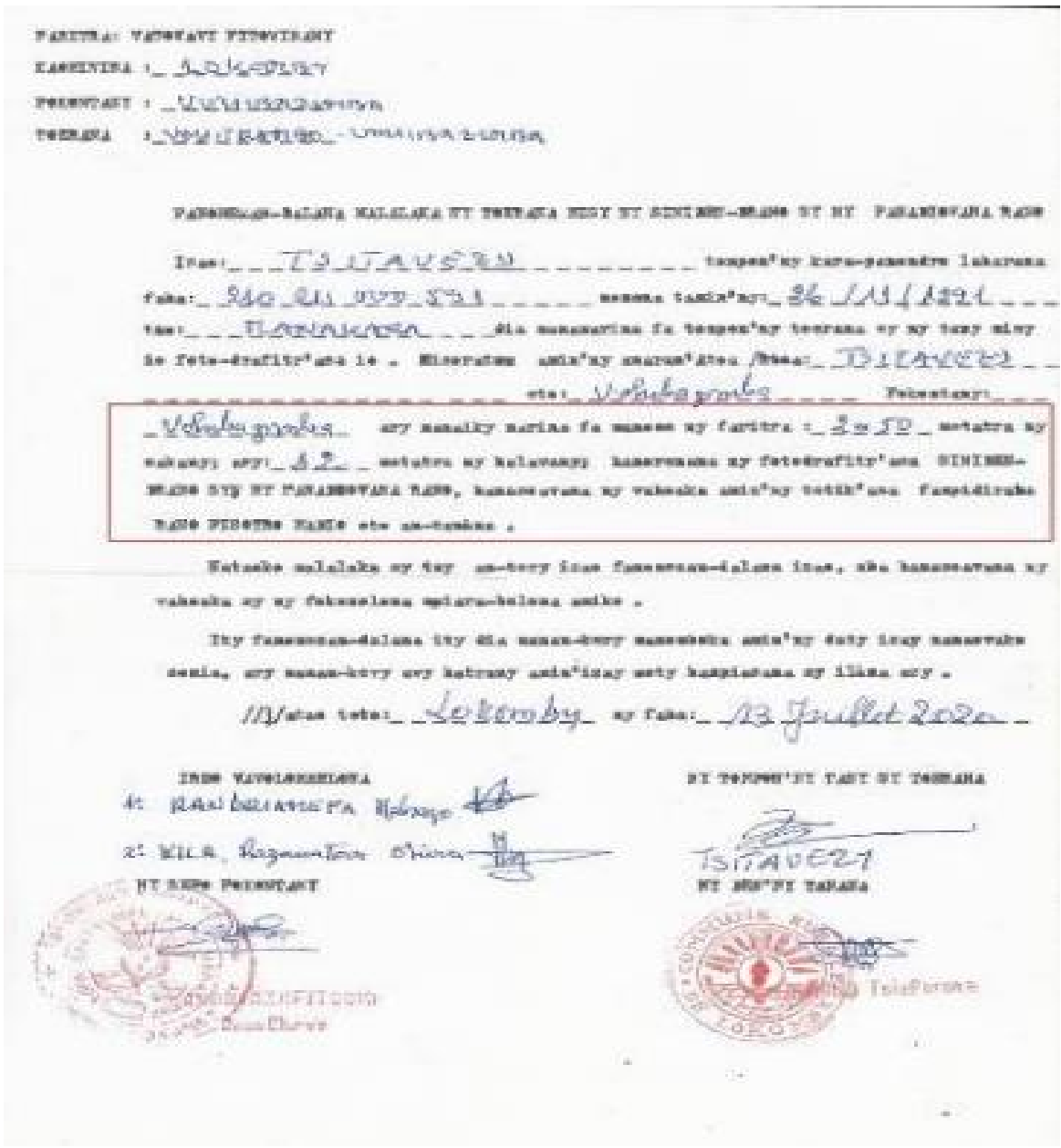
Ireto avy ny hevitra tapaka nandritry ny fankatoavana :

1. Ekena sy lany ampahabemaso ireo vaha-olana ara-teknika ho an'ny famatsiana rano fisotro madio, fanadiovana sy fidiovana.
2. Ekena ny fitaonin'ny sehatry toy mpanatana ny foto-drafitra ireo sy kamomoka "delimitation" ny filà-baika kamomoka hampamirina izay
3. Ty an'ny dera ny fony hampamirina ny foto-drafitra ireo sy kamomoka
4. « Acte de limitation » ny fampamirina tanany
5. « Acte de limitation » ny fony ireo ny foto-drafitra ireo sy kamomoka
6. « Acte de limitation » ny fony ireo ny foto-drafitra ireo sy kamomoka

Fehiny, nankatoavina feno avy amin'ny mpikambana ao amin'ny Vondrona Mpanatanteraka ny drafy-pamatsiana Rano Fisotro madio, Fanadiovana sy Fidiovana eto amin'ny vohitra  
 anivon'ny Kaominina ..... Nifarana tamin'ny ..... ora ..... minitra ny fivoriana. -

<p>Ny DREAH</p>  <p>SANDRIANA SANDRATRA Mamy Isabelle          Ingénieur hydrologue</p>	<p>Ben'ny Tanana</p>  <p>JEAN PAUL RAKOTONIRINA Jean Paul</p>	<p>Ny Chef Fokontany</p>  <p>RAVALOMANANA Ravalomanana</p>	
<p>NY TANINTSIKA</p>  <p>Mpanolotsainan'ny kaominina</p>	<p>RANO WASH</p>  <p>EANTO</p>	<p>BushProof</p>  <p>RINA</p>	
<p>NY FILOHAN' - FRANKWIRA</p>  <p>Randrianan'jomanana Frankwira</p>	<p>Ny Ampanjaka</p>  <p>LETZARA J. R.</p>	<p>Solotenan'ny mpahazo-tombontsoa</p>  <p>Randromaso Florent          ANDRIANTSALANA Onja Sello          RAJONARISON Hami</p>	
			

The scan of the APD validation minute of Maromiandra, Vatovavy Fitovinany region, above shows another case. After the study results were reported at the community level, the landowners were voluntary. They wished to donate their land for the public interest afterward through a land donation deed.



The above scan is a deed of land donation made by a private individual to install the Lokomby reservoir and filter the Vavavy Fitovinany region in Vohibazimba. This deed is the first step in the formalization of the transfer of the property to the Commune.

### EMMR ANNEX 4: SUMMARY OF THE WATER QUALITY TESTING RESULTS

Commune	Test date / update	Sampling location	pH	Electrical Conductivity (EC)	TDS (Total Dissolves Solids)	Temperature	Turbidity	Total Iron Fe2+ & Fe3+	Fluoride – F-	Arsenic	Nitrite – NO2-	Nitrate – NO3-	Coliform (TTC)	Escherichia Coli	Tested by	Checking phase	Safety Check according to the WQAP	Status Comments / Interpretation	FY: Action taken / Mitigation measures / Action plan
			Between 6.5 et 8.5 S.U.	∞ 1600 µS/cm	∞ 500 mg/l	15° ∞ ° C	∞ 5 NTU	∞ 0.3 mg/l	∞ 1.5 mg/l	∞ 0.01 mg/l	∞ 0.1 mg/l	∞ 50 mg/l	0/100ml	0/100ml					
1) Ampasimbe Onibe	26-june-21	Water tank	7.6	90.9	34.0	2.5	10.0	<0.05	0.2	<0.01	<0.05	0.8	461	19	IPM	Follow-up	Not Safe	The result from RISE test shows the presence of Coliforms in the water system. It means a low disinfection treatment. WSP is now relying on the use of HTH	Disinfection treatment using chlorine powder HTH is the common process that WSP is now using.
2) Mahavelona (Foulpointe)	26-04-22	Bout de resau Foulpointe	8.4	147.0	105.0	26.0	-	0.4	n/c	0.00	-	2.0	-	n/c	IPM	Monitoring	Safe	After the field visit conducted by IPM, Iron seems slightly out of the guideline. However, this rate of iron is still acceptable referring Malagasy guideline. Then, there is very low arsenic level in the borehole source	WSP of Foulpointe adopted strategy based on the previous WQR and the nothing change upstream of the source and watershed. Then will only follow-up bacteriological parameters.
3) Iliaka Est	17-09-21	Bout de resau Ambodibakoly	5.7	24.1	17.2	25.1	1.7	0.1	2.4	-	< 0,05	< 0,05	-	n/c	RAN OWA SH	Monitoring	Not Safe	Based on the parameter tested, pH doesn't meet the WQAP guideline. The number of the parameters tested is not enough to tell the water safety.	More investigation needs to be conducted to understand the low level of pH. Water quality result supposed to be available in Q4 was. However, the result too old define to best recommendation. WSP, should do more investigation about
4) Andovoranto (Ambila Lemaitso)	15-09-21	Bout de resau	6.6	90.2	64.2	26.1	2.0	< 0,05	n/c	n/c	< 0,05	0.5	-	n/c	RAN OWA SH	Monitoring	Safe	At the end point of water, based on the results recorded, the water seems potable	Water quality result are pending and supposed to be available in Q4. But based on the results RANOWASH performed with the portable water kits, the water is safe to drink.

Rural Access to New Opportunities in Water, Sanitation, And Hygiene  
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Commune	Test date / update	Sampling location	pH	Electrical Conductivity (EC)	TDS (Total Dissolves Solids)	Temperature	Turbidity	Total Iron Fe2+ & Fe3+	Fluoride – F-	Arsenic	Nitrite – NO <sub>2</sub> -	Nitrate – NO <sub>3</sub> -	Coliform (TTC)	Escherichia Coli	Tested by	Checking phase	Safety Check according to the WQAP	Status Comments / Interpretation	FY: Action taken / Mitigation measures / Action plan
			Between 6.5 et 8.5 S.U.	≤ 1600 μS/cm	≤ 500 mg/l	15° ≤ C	≤ 5 NTU	≤ 0.3 mg/l	≤ 1.5 mg/l	≤ 0.01 mg/l	≤ 0.1 mg/l	≤ 50 mg/l	0/100ml	0/100ml					
5) Ranomafana-Est	16-09-21	Bout de reseau ambodipont	6.7	27.4	20.3	26.0	-	0.1	n/c	n/c	< 0,05	0.5	57	n/c	RAN OWA SH	Monitoring	Not Safe	The presence of the TTC is recorded on these results. The water provided from the system is not safe.	To address the concentration problem, an assessment of the current production capacity of the electrochlorinator will be necessary (normally this equipment is supposed to produce a 6g/l concentrate). Improvements will then be made accordingly. As in the case of Ilaka Est, until the electrochlorinator can operate properly, the manager has been referred to suppliers of powdered or liquid hypochlorite to ensure that disinfection of the system can continue.
6) Mahatsara	14-09-21	Bout de reseau Vohitsara	6.7	113.2	80.5	25.1	-	0.2	0.2	<0.01	0.1	0.5	-	n/c	RAN OWA SH	Monitoring	Safe	According to the results from RANOWASH monitoring, the water provided by the system is safe for drinking.	The acquisition of the results from the IPM conducted in Q3 are pending. Those results will confirm the potability of the water provided from the system.
7) Niarovana Caroline	17-09-21	br Bonaka	6.6	62.5	43.9	25.1	4.1	0.3	<0.05	n/c	<0.05	0.5	34	n/c	RAN OWA SH	Monitoring	Not Safe	TTC concentration is here out of the WQAP. It means that the water is not safe to drink.	The appropriate recommendations had directly sent to local WSP to improve the water quality in Niarovana. Other tests need to be conducted to check safety of the water.

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			Between 6.5 et 8.5 S.U.	≤ 1600 μS/cm	≤ 500 mg/l	15 °C	≤ 5 NTU	≤ 0.3 mg/l	≤ 1.5 mg/l	≤ 0.01 mg/l	≤ 0.1 mg/l	≤ 50 mg/l	0/100ml	0/100ml					
8) Ampasimadinika	27-07-22	Bout de reseau	6.9	54.3	38.3	23.8	14.41	0.69	0	n/c	0	0	25	1 <	COLA B SARL	Monitoring	Not Safe	According to the level of turbidity, iron and TTC, the water is not safe to drink. Treatment plant should be maintained.	Recommendation were immediately given to the local WSP which tends to improve treatment monitoring . Until the issues happening upstream are not removed WSP has to monitor all related health parameters with physico-chemical parameters for the Water system
9) Aendemaka	04-04-21	Filtered water supply	6.4	121.0	55.0	26.0	<0,02	0.1	0.1	< 0,01	< 0,05	4.4	< 1	< 1	IPM	Monitoring	Safe	From the results obtained from IPM lab, only the pH seems slightly below the standard. At this level and at where it is located, it doesn't affect the customer water connection.	
10) Keilalina (Kianjanomby)	14-05-19	Water supply system of Kianjanomby	6.9	49.3	27.0	26.1	2.0	0.2	0.2	<0,01	<0,1	2.0	< 1	< 1	IPM	Safety validation	Safe	Palpable variation between the quality of the water at the inlet of the filter and in the reservoir showing that the treatment is currently effective for both filtration and disinfection	The next expected results are the manager's semi-annual reports to the commune and the MEAH.
11) Ambatofotsy (Ambodiara Sakorihya)	01-04-21	Water supply system of Ambodiara	6.9	43.7	22.0	24.8	<0.02	<0.05	<0.05	<0.01	<0.1	2.2	< 1	< 1	IPM	Safety validation	Safe	Ambodiara Sakorihy's system is safe	The next expected results are the manager's semi-annual reports to the commune and the MEAH.
12) Ambatofotsy (Ambalatenina)	01-04-21	Water supply system of Ambalatenina	6.9	40.9	21.0	25.6	<0.02	<0.05	<0.05	<0.01	<0.1	1.8	< 1	< 1	IPM	Safety validation	Safe	Ambalatenina's system is safe	The next expected results are the manager's semi-annual reports to the commune and the MEAH.

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Commune	Test date / update	Sampling location	pH	Electrical Conductivity (EC)	TDS (Total Dissolves Solids)	Temperature	Turbidity	Total Iron Fe2+ & Fe3+	Fluoride – F-	Arsenic	Nitrite – NO2-	Nitrate – NO3-	Coliform (TTC)	Escherichia Coli	Tested by	Checking phase	Safety Check according to the WQAP	Status Comments / Interpretation	FY: Action taken / Mitigation measures / Action plan
			Between 6.5 et 8.5 S.U.	≤ 1600 μS/cm	≤ 500 mg/l	15° ≤	≤ 5 NTU	≤ 0.3 mg/l	≤ 1.5 mg/l	≤ 0.01 mg/l	≤ 0.1 mg/l	≤ 50 mg/l	0/100ml	0/100ml					
13)Ambatofotsy	01-04-21	Water Tank in Ambatofotsy Chef-lieu	6.0	33.3	15.0	23.5	<0,02	0,05	0.1	0,01	0,05	4.3	165	11.0	IPM	Monitoring	Not Safe	Those test results from IPM Lab indicate that water provided from Manampatrana water system is not safe. The fecal indicators results can be interpreted as a malfunctioning of the disinfection unit to remove bacteria contaminants. Then, pH is also out of the water standard defined in WQAP. investigation need to be undertaken to understand the reason of that low pH.	Finally, IPM came to V7V in March and April 2021 to perform water quality tests. Based on those results, immediate corrective measures should be taken to bring the undesirable value to normal. As well, another IPM tests should be conducted to certify the water safety of Ambatofotsy in Q4 FY22
14)Antaretra	31-03-21	water tank Antaretra	5.9	35.6	16.0	27.5	<0,02	0,05	0.10	0,01	0,05	4.0	45	4.0	IPM	Monitoring	Not Safe	Those test results from IPM Lab indicate that water provided from Manampatrana water system is not safe. The fecal indicators results can be interpreted as a malfunctioning of the disinfection unit to remove bacteria contaminants. Then, pH is also out of the water standard defined in WQAP. investigation need to be undertaken to understand the reason of that low pH.	Finally, IPM came to V7V in March and April 2021 to perform water quality tests. Based on those results, immediate corrective measures should be taken to bring the undesirable value to normal. As well, another IPM tests should be conducted to certify the water safety of Antaretra in Q4 FY22.



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Commune	Test date / update	Sampling location	pH	Electrical Conductivity (EC)	TDS (Total Dissolves Solids)	Temperature	Turbidity	Total Iron Fe2+ & Fe3+	Fluoride – F-	Arsenic	Nitrite – NO <sub>2</sub> <sup>-</sup>	Nitrate – NO <sub>3</sub> <sup>-</sup>	Coliform (TTC)	Escherichia Coli	Tested by	Checking phase	Safety Check according to the WQAP	Status Comments / Interpretation	FY: Action taken / Mitigation measures / Action plan
			Between 6.5 et 8.5 S.U.	≤ 1600 μS/cm	≤ 500 mg/l	15° ≤ C	≤ 5 NTU	≤ 0.3 mg/l	≤ 1.5 mg/l	≤ 0.01 mg/l	≤ 0.1 mg/l	≤ 50 mg/l	0/100ml	0/100ml					
15) Manampatrana	01-04-21	Water tank	5.6	24.4	13.0	24.6	<0.02	<0.05	0.50	<0.01	<0.05	<0.05	201	9.0	IPM	Monitoring	Not Safe	Those test results from IPM Lab indicate that water provided from Manampatrana water system is not safe. The fecal indicators results can be interpreted as a malfunctioning of the disinfection unit to remove bacteria contaminants. Then, pH is also out of the water standard defined in WQAP. investigation need to be undertaken to understand the reason of that low pH.	Finally, IPM came to V7V in March and April 2021 to perform water quality tests. Based on those results, immediate corrective measures should be taken to bring the undesirable value to normal. Another IPM tests should be conducted to certify the water safety of Manampatrana in Q4 FY22.
16) Lokombo	21-08-21	After filter	6.1	30.0	234.0	32.8	4.0	0.1	n/c	n/c	n/c	n/c	n/c	-	RANOWASH	Monitoring	Safe	According to previous recommendations the test conducted by the RANOWASH Team tells that the water is now safe to drink , there are no more bacteria.	The appropriate recommendation was done to WSP to improve water quality. Another need to be performed for this system.
17) Beforona	12-06-19	Water supply system of Beforona	7.8	55.3	55.0	20.5	1.1	< 0,05	0.4	< 0,01	< 0,1	0.3	< 1	< 1	IPM	Safety validation	Safe	The system of Beforona is safe	The next expected results are the manager's semi-annual reports to the commune and the MEAH.
18) Sabotsy Anjiro	03-06-19	Water supply system of Sabotsy	7.5	66.0	66.0	10.0	4.8	0.1	0.3	< 0,01	0.1	0.5	< 1	< 1	IPM	Safety validation	Safe	The system of Sabotsy Anjiro is safe	The next expected results are the manager's semi-annual reports to the commune and the MEAH.

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Commune	Test date / update	Sampling location	pH	Electrical Conductivity (EC)	TDS (Total Dissolves Solids)	Temperature	Turbidity	Total Iron Fe2+ & Fe3+	Fluoride – F-	Arsenic	Nitrite – NO <sub>2</sub> -	Nitrate – NO <sub>3</sub> -	Coliform (TTC)	Escherichia Coli	Tested by	Checking phase	Safety Check according to the WQAP	Status Comments / Interpretation	FY: Action taken / Mitigation measures / Action plan
			Between 6.5 et 8.5 S.U.	≤ 1600 μS/cm	≤ 500 mg/l	15 °C	≤ 5 NTU	≤ 0.3 mg/l	≤ 1.5 mg/l	≤ 0.01 mg/l	≤ 0.1 mg/l	≤ 50 mg/l	0/100ml	0/100ml					
19) Amparafaravola (Ambongabe)	16-12-21	Water supply system of Amparafaravola	6.9	28.0	13.0	22.5	14.0	1.3	0.4	<0.01	<0.1	2.0	1,733.0	42.0	IPM	Safety validation	Not Safe	The current results show that the treatment is low in term of chlorination and filtration of the water	Cleaning of the distribution network followed by complete disinfection to improve turbidity throughout the network.
20) Amparafaravola Betatamo	16-12-21	Water supply system of Amparafaravola	6.8	27.9	14.0	22.5	<0.02	0.8	0.5	<0.01	<0.1	1.1	686.0	21.0	IPM	Safety validation	Not Safe	The current results show that the treatment is low in term of chlorination and filtration of the water	Recommendation were immediately given to the local WSP
21) Anosibe Ifody (Ambodifody)	24-04-20	Water supply system of Anosibe Ifody	7.6	37.4	33.0	8.6	5.8	0.1	0.8	<0.01	<0.1	0.7	<1	<1	IPM	Safety validation	Safe	Relatively high turbidity values can have an influence on user satisfaction but is not harmful to health. The water supply system of Anosibe Ifody delivers Safe Water.	The system delivers safe water according to acceptable WQAP standards; however, the filtration system will be upgraded to reduce water turbidity and shock chlorination disinfection will still be required to fully clean the newly installed extension to Ambalahorina.
22) Morarano Chrome	08-10-21	Ap-traitement	6.3	45.0	31.0	25.0	38.3	1.1	-	-	-	-	n/c	n/c	RANO WASH	construction exploitation	Not Safe	Iron and turbidity are the values which need to be surveyed during the water treatment.	All the appropriate recommendations were directly delivered to the local WSP of Morarano Chrome. Turbidity and Iron need to be monitored as well as possible.
23) Androy		Water supply system of Androy	6.3	16.9	17.0	20.7	1.0	0.1	0.6	<0.01	<0.01	0.2	-	-	IPM	Safety validation	Safe		

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Commune	Test date / update	Sampling location	pH	Electrical Conductivity (EC)	TDS (Total Dissolves Solids)	Temperature	Turbidity	Total Iron Fe2+ & Fe3+	Fluoride – F-	Arsenic	Nitrite – NO2-	Nitrate – NO3-	Coliform (TTC)	Escherichia Coli	Tested by	Checking phase	Safety Check according to the WQAP	Status Comments / Interpretation	FY: Action taken / Mitigation measures / Action plan
			Between 6.5 et 8.5 S.U.	≤ 1600 μS/cm	≤ 500 mg/l	≤ 30 °C	≤ 5 NTU	≤ 0.3 mg/l	≤ 1.5 mg/l	≤ 0.01 mg/l	≤ 0.1 mg/l	≤ 50 mg/l	0/100ml	0/100ml					
24)Ambohitsimanova	03-11-21	Water supply system of Ambohitsima	8.0	73.8	52.4	25.0	21.6	0.9	0.4	-	-	-	-	nc	RANOWASH	Monitoring	Note Safe	The water is safe in term of non-presence of bacteria. Anyway the iron and turbidity aren't acceptable at that rate.	IPM water quality test needs to be conducted on this system to certify the potability of the water
25)Antsoatany	05-02-22	Water supply system of Antsoatany	6.9	60.8	61.0	nc	0.68	0.05	0.7	0.01	0.05	0.05	45.0	<1	Institut Pasteur de Madagascar	Monitoring	Not Safe	According to this last result, Coliforms were present. The WSP was recently acquired disinfection equipment, electrochlorinator. Appropriate measures will be now deployed to correct the Coliforms issue.	Among the overall parameters to be monitored, Coliforms concentration didn't meet the standard. It implicates the monitoring of the bacteriological parameter immediately
26)Soanindrariny	24-02-22	Water supply system of Soanindrariny	6.6	44.9	45.0	nc	1.7	0.05	0.7	0.01	0.05	0.3	32.0	1 <	Institut Pasteur de Madagascar	Monitoring	Note Safe	According to this last result, Coliforms were present. The WSP was recently acquired disinfection equipment, electrochlorinator. Appropriate measures will be now deployed to correct the Coliforms issue.	Among the overall parameters to be monitored, Coliforms concentration didn't meet the standard. It implicates the monitoring of the bacteriological parameter immediately
27)Ivato Centre	18-01-22	Water supply system of Ivato centre	6.8	29.4	26.0	20.4	70.0	0.1	<0.05	<0.01	0.1	0.1	>200	>200	IPM	Safety validation	Not Safe	The results indicate high concentration of bacteria, high rate of turbidity and non-acceptable rate of nitrite.	Second test already reconducted and the results will be available on Q4.
28)Ambohitrova	21-08-21	After filter	6.1	30.0	234.0	32.8	4.0	0.1	n/c	n/c	n/c	n/c	n/c	-	RANOWASH	Safety validation	Safe	According to previous recommendations the test conducted by the RANOWASH Team tells that the water is now safe to drink, there are no more bacteria.	The appropriate recommendation was done to WSP to improve water quality. Another need to be performed for this system.

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Commune	Test date /update	Sampling location	pH	Electrical Conductivity (EC)	TDS (Total Dissolves Solids)	Temperature	Turbidity	Total Iron Fe2+ & Fe3+	Fluoride – F-	Arsenic	Nitrite – NO <sub>2</sub> -	Nitrate – NO <sub>3</sub> -	Coliform (TTC)	Escherichia Coli	Tested by	Checking phase	Safety Check according to the WQAP	Status Comments / Interpretation	FY: Action taken / Mitigation measures / Action plan
			Between 6.5 et 8.5 S.U.	≤ 1600 μS/cm	≤ 500 mg/l	≤ 30 °C	≤ 5 NTU	≤ 0.3 mg/l	≤ 1.5 mg/l	≤ 0.01 mg/l	≤ 0.1 mg/l	≤ 50 mg/l	0/100ml	0/100ml					
29) Andrainjat o Est	30-06-22	After treatment	6.7	26.6	24.0	26.0	2.4	0.2	1.2	<0.01	<0.1	0.1	-	-	IPM	Safety validation	Safe	The results show the water is safe to drink	Nonspecial measure needs to be taken but the water quality test needs to be done frequently
30) Andrainjato Ambalavao	30-06-22	After treatment	6.6	175.0	175.0	23.0	1.9	<0.05	0.8	<0.01	<0.1	<0.05	-	-	IPM	Safety validation	safe	The results show the water is safe to drink	Nonspecial measure needs to be taken but the water quality test needs to be done frequently
31) Andonabe	16-06-22	Water tank	7.7	95.0	60.0	nc	39.0	0.1	0.2	<0.01	<0.1	0.5	200<	50.0	IPM	Monitoring	Not Safe	The results indicate high concentration of bacteria	Even this system is one of the RANOWASH cost-share WSS, the manger has already benefited water quality test and water quality training from RANOWASH. The local WSP is already warned about this issue.
32) Fenomby	16-06-22	Water tank	7.9	156.0	142.0	nc	0.4	<0.05	0.4	<0.01	<0.1	0.4	200<	1.0	IPM	Monitoring	Not Safe	The results indicate high concentration of bacteria	Even this system is one of the RANOWASH cost-share WSS, the manger has already benefited water quality test and water quality training from RANOWASH. The local WSP is already warned about this issue.

## ANNEX 52. CLIMATE RISK MANAGEMENT PLAN FY23

### Climate Risk Management Plan FY23

Project/Activity /Sub-Activity	Climate risks.	Climate risk rating (low, moderate, high).	Mitigation measures (how to address the climate risks).	Monitoring indicators.	Monitoring and Reporting Frequency	Responsible Parties
<b>Activity 1: WASH service implementation</b>						
Infrastructure building	<p>Increased temperature &amp; drought/siltation  Extreme rainfall, landslides, and Flooding  High frequency and intensity of cyclones</p> <p>Building disturbance  Inappropriate availability of resources and access  Use of unsuitable materials  Poor choice of location.  Inappropriate site layout.</p>	Moderate	<p>Well scheduling the fieldwork planning and the infrastructure building,</p> <p>Use of adapted and suitable technical modeling</p> <p>Design a ground protection system and anti-erosion structures around the infrastructure,</p> <p>Cooperation with DGM and BNGRC.</p>	Work Plan, Infrastructure design	Quarterly	WSP Sandandrano BushProof
<b>Activity 2: Gravity Water Infrastructure</b>						
Capture: Dam, Surface, or Piped source	Increased Temperature	Moderate	Groundwater recharge by IWRM approach,	Work Plan, Infrastructure design	Quarterly	WSP Sandandrano BushProof

Project/Activity /Sub-Activity	Climate risks.	Climate risk rating (low, moderate, high).	Mitigation measures (how to address the climate risks).	Monitoring indicators.	Monitoring and Reporting Frequency	Responsible Parties
	<p>Higher evaporation  Water table depletion  Insufficient flow</p> <p>Extreme rainfall and flooding.</p> <p>Mudding and silting up  Change in water quality</p>		<p>Well, selecting the site location,</p> <p>Secured and well-dimensioned spillway and decanter (sand trap),</p> <p>Cooperation with DGM and BNGRC.</p>			
Water treatment and filtering (and maybe the storage)	<p>Extreme rainfall, landslides, siltation, and flooding.</p> <p>Higher turbidity  Dense water suspension soil particles (MES)  Pollution &amp; clogging  Change in water quality</p>	Low	<p>Water Quality control in WQAP  Readjustment of water treatment and cleaning frequency  Cooperation with DGM, BNGRC, and MoPH.</p>	<p>Workplan</p> <p>WQAP and WQAR</p> <p>WSP periodical report</p> <p>Water Quality result per site</p>	<p>Quarterly</p> <p>Quarterly</p> <p>Biannual</p> <p>Biannual</p>	<p>WSP  Sandandrano  BushProof  DREAH  Commune</p>
<b>Activity 3: Groundwater well or Drilling and Pumping system</b>						

Project/Activity /Sub-Activity	Climate risks.	Climate risk rating (low, moderate, high).	Mitigation measures (how to address the climate risks).	Monitoring indicators.	Monitoring and Reporting Frequency	Responsible Parties
Capture: Well and Borehole	<p>Increased temperature and drought</p> <p>Higher evaporation Water table depletion Drought</p> <p>Extreme rainfall Frequent or severe cyclones, salt infiltration, and sedimentation.</p> <p>Flooding Change in water quality Siltation Contaminant dispersion</p>	Moderate	Well dimensioning infrastructure using Climate Change monitored model Groundwater recharge by IWRM approach Cooperation with DGM and BNGRC.	Work Plan, Infrastructure design	Quarterly	WSP Sandandrano BushProof
	<p>Extreme rainfall Frequent or severe cyclones, salt infiltration, and sedimentation.</p> <p>Flooding</p>	Moderate	Well selecting infrastructure location and characteristics using climate change monitored model.	Work Plan, Infrastructure design	Quarterly	WSP Sandandrano BushProof

Project/Activity /Sub-Activity	Climate risks.	Climate risk rating (low, moderate, high).	Mitigation measures (how to address the climate risks).	Monitoring indicators.	Monitoring and Reporting Frequency	Responsible Parties
	Change in water quality Siltation Contaminant dispersion		Cooperation with DGM and BNGRC.			
	Increased sea level, salt infiltration.  Coastal water table elevation Contaminant dispersion	Low	Well selecting infrastructure location Researching other options for very low elevation village	Work Plan, Infrastructure design	Quarterly	WSP Sandandrano BushProof
<b>Activity 4: Sanitation and Hygiene Infrastructure</b>						
Sanitation and Hygiene infrastructure building and use	Extreme rainfall Frequent or severe cyclones, landslides, siltation, and flooding.  Contaminant dispersion	Moderate	Well selecting infrastructure location and technology: Design a ground protection system and anti-erosion structures around the infrastructure (grassing, drainage structures with pebbles, gravel, or concrete)	Work Plan, Infrastructure design	Quarterly	Sanitation Service provider Commune/STEAH RW SO2, SO3



Project/Activity /Sub-Activity	Climate risks.	Climate risk rating (low, moderate, high).	Mitigation measures (how to address the climate risks).	Monitoring indicators.	Monitoring and Reporting Frequency	Responsible Parties
			Protecting infrastructure Cooperation with DGM			
Coastal /littoral Sanitation and hygiene infrastructure	Increased sea level, salt infiltration.  Coastal water table elevation Contaminant dispersion	Low	Well, selecting infrastructure location and technology. Researching infrastructure adapted to the local context	Work Plan, Infrastructure design	Quarterly	Sanitation Service provider Commune/STEAH RW SO2, SO3
ODF to Post-ODF	Extreme rainfall Frequent or severe cyclones  Latrine destruction Flooding Contaminant dispersion	Moderate	Market-Based Sanitation	Work Plan, Infrastructure design	Quarterly	Sanitation Service provider Commune/STEAH RW SO2, SO3

## ANNEX 53. ONE INFORMATION AND SORTING FORM FOR INFRASTRUCTURE PROJECT



OFFICE NATIONAL POUR L'ENVIRONNEMENT

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Infrastructure

### FICHE DE RENSEIGNEMENT ET DE TRI PROJET INFRASTRUCTURE

Cette fiche de renseignement et de tri est mise à la disposition des promoteurs afin de permettre à l'ONE de catégoriser les projets d'investissement conformément à l'article 3 du Décret MECIE. Veuillez la compléter scrupuleusement et fournir des informations exactes et sincères concernant les renseignements demandés

#### I. INFORMATIONS GÉNÉRALES SUR LE PROJET

INTITULE DU PROJET :		
MINISTERE DE TUTELLE :		
Localisation administrative du projet	Localité(s)	
	Fokontany	
	Commune <input type="checkbox"/> Urbaine <input type="checkbox"/> Rurale	
	District(s)	
	Région(s)	
	Coordonnées géographiques	
Est-ce que le Projet est en phase d'étude de faisabilité : <input type="checkbox"/> EN COURS <input type="checkbox"/> TERMINE <input type="checkbox"/> NON • Date de démarrage : <input type="checkbox"/> effective ..... prévisionnelle		
Durée de vie du projet :		
Montant (réel / prévisionnel) de l'investissement :		

#### 2. INFORMATIONS SUR LE PROMOTEUR

Nom ou Raison Sociale de la société :

SA  Sarl U  Entreprise individuelle  Association ou ONG  
 Autre (à préciser)  
.....

	Responsable de la Société/organisme/Institution	Interlocuteur mandaté du Promoteur avec l'ONE
Nom et Prénoms		
Nationalité		

Fonction		
Contact		

Coordonnées de la Société/Entreprise	Adresse	
	Boîte postale	
	Téléphone	
	E-mail	
	Site web	
	Siège social	

### 3. DESCRIPTION DU PROJET

#### a. Moyens d'exploitation

Moyens d'exploitation	Désignation	Dimension/Superficie/ Longueur/Nombre/Coor données géographiques	Affectation
Infrastructures à mettre en place			
Matériels et équipements de production	Matériels roulants/flottants/volant		
	Autres matériels et équipements (manutention, ...)		
Ressources Humaines	Permanent		
	Temporaire		

#### b. Bilan matières

	Type	Désignation	Quantité
Intrants	Matériaux		
	Énergies (source, besoin)		
	Sources et besoin en eau du projet (dans la mesure du possible, à détailler par type d'utilisation)		
Extrants	Effluents liquides		
	Huiles usées		
	Déchets solides ou pâteux non biodégradables et biodégradables		
	Émission atmosphérique (fumées, poussières, gaz...)		

### 4. DESCRIPTION DU MILIEU D'IMPLANTATION

- Superficie approximative du terrain d'implantation des ouvrages :
- Statut foncier
  - Propriété privé titré     Propriété privé non titré     Terrain de l'Etat     Terrain appartenant aux CTD
  - Bail

- Utilisation du terrain :
- Caractéristiques :

**a. Situation par rapport aux zones dites sensibles**

Typologie de ZS	Description	Distance par rapport au projet	Observations particulières
Zones d'habitation aux environs de l'installation du projet			
Plan d'eau (marécage, étang, rivière, lac, source)			
Forêts naturelles existantes			
Forêts de reboisement			
Aire protégée (marine et terrestre)			
Autres zones sensibles (mangroves, récifs coralliens, îlots, zone de conservation naturelle, écosystème marin / littoral)			
Zone urbaine, suburbaine, rurale, zone enclavée.			
Sites culturels, culturels, archéologiques, paléontologiques, historiques. Patrimoine national. Tombeaux			
Zones d'activités économiques des populations (élevage, agriculture, pâturage...)			
Autres ( <u>ex</u> : Existence d'une autre activité dans la même zone d'intervention du projet)			

**b. Aspects environnementaux et sociaux majeurs**

Enjeux (problématiques/préoccupations majeures)	Description succincte
<b>PAR RAPPORT AU PROCÉDÉ</b>	
Gestion des eaux ( utilisation...)	
Consommation d'énergie, de matières premières, matériaux...	
Gestion de déchets (dangereux, mise en décharge, ...)	
Risques et dangers (accident de travail/accident industriel, manipulation des produits dangereux...)	
<b>PAR RAPPORT AU MILIEU PHYSIQUE</b>	

<b>Enjeux (problématiques/préoccupations majeures)</b>	<b>Description succincte</b>
Contamination du sol (par infiltration/ruissellement) liée au déversement des produits et résidus	.
Pollution de l'air (fumée/poussières/évaporation de combustibles liquides, bruit, odeur, rejet de substances nocives et de produits dangereux dans la nature)	
Pollution de l'eau (effluents liquides, MES, turbidité, résidus chimiques, d'antibiotiques)	
Changement climatique ( émission de gaz à effet de serre dans l'air)	

<b>Enjeux (problématiques/préoccupations majeures)</b>	<b>Description succincte</b>
<b><u>PAR RAPPORT AU MILIEU BIOLOGIQUE</u></b>	
Contamination des ressources biologiques (flore, faune, ressources forestières)	
Pression sur les ressources biologiques	
<b><u>PAR RAPPORT AU MILIEU HUMAIN</u></b>	
Utilisation de l'espace ( ex : activité autorisée au sein d'une AP...)	
Modification de l'occupation du sol	
Santé des travailleurs et populations par rapport aux produits utilisés (polluants / inhalation ou contact direct avec les produits toxiques)	
Impacts prévisibles sur les propriétés des riverains	
Impacts prévisibles sur la santé publique : Maladies pouvant impacter les communautés riveraines	
Dépendances envers les ressources locales et augmentation des pressions sur les ressources utilisées par la population : eau, combustible, sol, énergie, ressources naturelles, etc.	
Déplacement involontaire de la population	
Atteinte aux aspects culturels et/ou cultuels	
Impacts sur les activités économiques	
<b><u>PAR RAPPORT A LA SITUATION SOCIALE DU PROJET</u></b>	
Avis de la population sur le projet	
Autres usages possibles du site	
Existence/risque de conflit	
Impacts cumulatifs et résiduels	
<b><u>AUTRES TYPES D'IMPACTS, RISQUES OU DANGERS</u></b>	

Le Projet prévoit-il un nombre important de bénéficiaires :

## 5. PIECES JOINTES

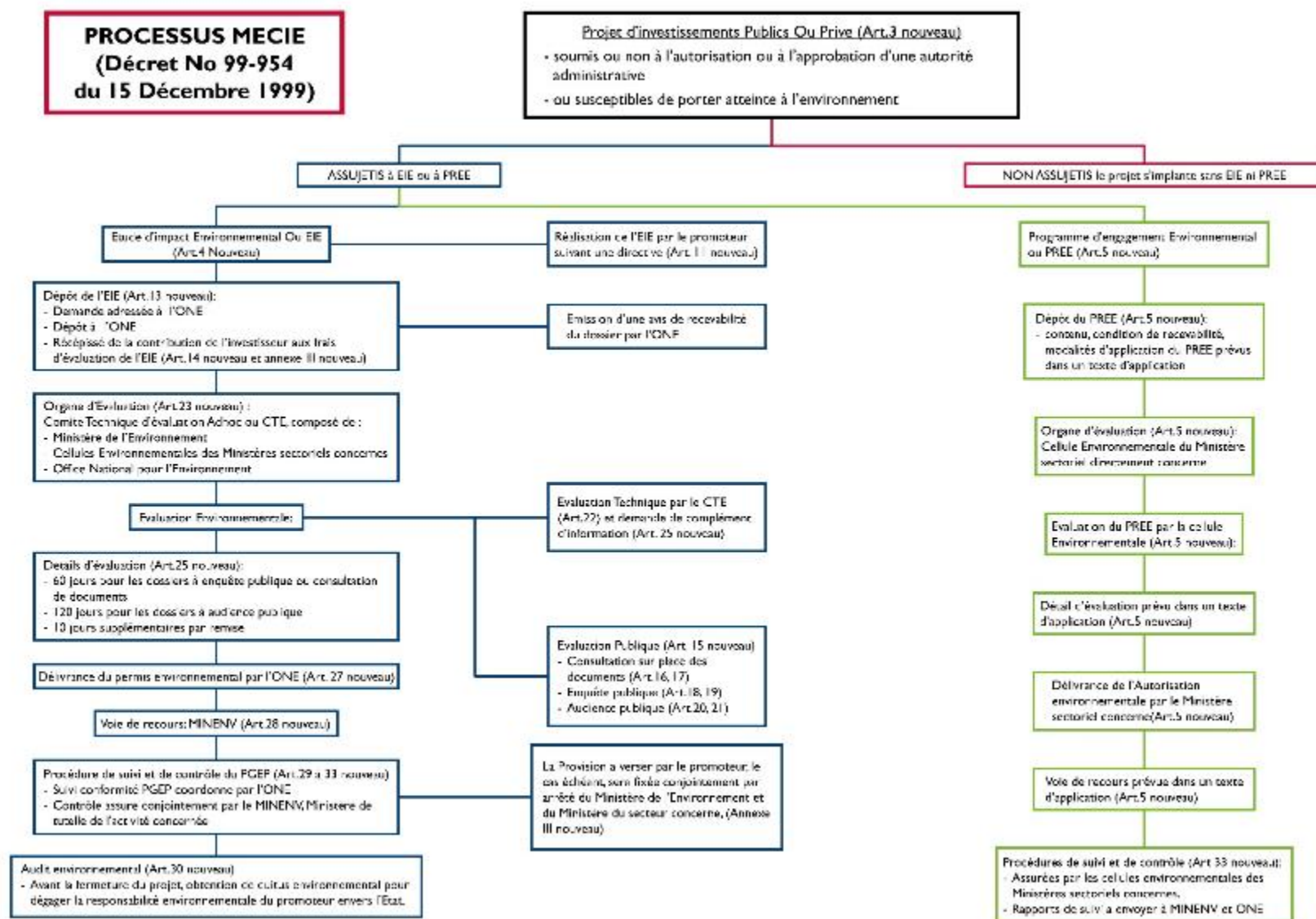
- Description succincte du projet
- Carte de localisation / délimitation précise du site / zone d'implantation (à défaut localisation sur image Google)
- Plan d'occupation du sol
- Certificat de situation juridique du terrain d'implantation moins de 3 mois et bail le cas échéant
- Autres (à préciser) :

.....  
.....  
.....  
.....  
.....  
.....  
.....

**SIGNATURE DU REMETTANT DE LA FICHE**

NOM :

DATE :





## ANNEX 54. PRACTICAL INCINERATOR GUIDE

### OPERATOR'S MANUAL FOR THE USE OF THE MONFORT INCINERATOR

#### 1.1. The Waste Treatment Unit and its different elements

The UTD allows trained operators to work safely and process infected waste. It consists of several components and is housed in an enclosed building. These components are :

- A **De Montfort incinerator** to burn the waste and reduce its quantity. The incinerator destroys 6-7kg per hour if used properly (i.e., approximately six safety boxes per hour).
- An **ash receptacle**, where ash residue, glass, and metal parts - including needles - are safely **deposited after** cremation. The ash receptacle is large enough to hold ten years' worth of cremated waste without being emptied. The residue from one incineration weighs approximately 0.5 kg. Over one year, a 3.25 cubic meter receptacle holds the ashes of 300 safety boxes per month. An access hatch to the ash receptacle allows the stacked ashes to be spread out from time to time.
- A **waste room** that allows for the safe storage of waste to be incinerated. The room can store at least 200 safety boxes if properly stored.
- A **fuel room** to store fuel, such as agricultural waste or wood, is needed to preheat the incinerator. The fuel room is large enough to store the fuel for five incinerations for preheating and processing medical waste.
- A storage box for tools, safety gear, and records.
- A **wire fence** with a locked door to keep out children, unauthorized persons, scavengers, and birds.
- A **shelter** that protects from inclement weather, especially rain, for the incinerator, the operator, and the waste to be incinerated. The shelter also protects the fuel, the operator's tools, safety gear, and records. The shelter supports a 4-meter-high chimney.
- An **access hatch** through the metal wall of the UTD allows waste to be deposited when the UTD is closed, and the operator is absent. This hatch opens directly **into a secure storage area**, which provides a protected area where safety boxes (and needle cutter containers) can be temporarily deposited.



#### 1.2. Operation of the incinerator De Montfort

The incinerator consists of prefabricated refractory bricks and metal components that can be manufactured on-site or imported. The structure is assembled and built on site with Portland cement or refractory cement. No special tools are required.

The incinerator has a primary and a secondary combustion chamber. The combustion zone of the primary chamber is accessible through a front door. This door allows air to enter, the operator to light the fire, and remove the ashes. Medical waste is removed through an unloading door located above the primary chamber. The secondary chamber, inaccessible to the operator, is separated from the primary chamber by a brick wall with a downward opening to create a draft during the operation. The secondary chamber has additional ventilation through a small opening at the bottom of its rear wall. The air mixes with the combustion gases from the primary chamber and causes a secondary combustion. An automatic ventilation control, necessary for heat adjustment and combustion time, is located in the lower part of the chimney and controls the combustion of gases in the chimney. A thermometer installed in the neck of the chimney indicates when it is time to load the medical waste. A 4 m chimney, mounted above the secondary combustion chamber, allows the evacuation of gases to the open air.

## 1. SECURITY

The safety of the UTD operator is ensured by following the instructions listed below:

1. Wear the protective clothing provided to all operators.
2. Wash your hands regularly.
3. Be vaccinated against the hepatitis B virus (HBV)
4. Have regular medical check-ups (every six months).

## 2. TASKS AND RESPONSIBILITIES OF THE OPERATOR

1. Follow the instructions given in this *Manual* to destroy medical waste deposited in the UTD.
2. Establish a regular schedule for waste incineration operations.
3. Reduce personal risk and that of all health care personnel and the local community.
4. Report work performed and problems encountered to supervisor.

## 3. RECEPTION OF MEDICAL WASTE AT UTD

### 3.1. When the operator is present

When waste is dropped off at the UTD, the operator :

1. Will receive the waste and record the necessary details on the **Waste Deposit Form**.
2. Will verify that all waste received is packaged properly, which means:
  - sharp materials in safety boxes,
  - other waste in plastic bags
  - needles in needle cutter containers.
3. If the waste is not properly packaged, it must be reported to the supervisor!

### 3.2. Waste deposited in the absence of the operator at the UTD

If the operator is not present, the person delivering the waste to the UTD must:

1. Ensure that safety boxes and plastic bags are properly closed.
2. Deposit safety boxes and plastic bags through the access hatch marked and designed for this purpose. Waste deposited here will fall into the secure storage area, accessible only to authorized personnel.
3. In areas where a needle cutter is used, deposit needle containers through the access hatch used for safety boxes and plastic bags.

Upon return, the operator will put away the safety boxes or plastic bags containing the waste that was deposited through the waste room access hatch. The operator will also fill out the **Waste Treatment Record** for the newly deposited waste.

### Important:

**Always** wear protective clothing when handling waste.



## 4. CONDITIONS OF WASTE INCINERATION

Use the incinerator to burn waste only if:

1. At least six safety boxes of waste are stored in the UTD for processing.
2. The wind should not blow towards health care centers and other buildings near the incinerator or over a cultivated field.
3. No groups of passers-by should be present in the immediate vicinity.
4. The wind should not blow too hard so as not to cause a fire.
5. Security measures must be satisfactory (*as defined below*).
6. The incinerator must work perfectly (*according to the definitions below*).

## 5. PREPARATION

### Before you start :

1. Ensure that more than 10kg of renewable fuel (wood, coconut husks or other agricultural waste fuels) and 1 liter of kerosene are available in the UTD.
2. Ensure that medical waste stored in the UTD is dry. If it is wet, dry it in a well-ventilated area of the UTD.
3. All tools and equipment must be in perfect condition.
4. Wear protective clothing (gloves, goggles, aprons, and masks).
5. Remove the ashes from the incinerator and place them in the ash receptacle.
6. Clean the area around the UTD.
7. Weigh the medical waste before incineration and count the number of boxes and/or bundles. Record these quantities on the **Waste Deposit Form**.



**Important:**

**Do not** sort, mix waste before incineration. It is dangerous. A needle stick can be fatal!

## 6. START-UP

### 6.1. Ignition and preheating

Follow the procedure below to light the incinerator and reach the temperature required for loading medical waste.

1. Open the ash door fully and keep the loading door closed.
2. Place paper, kindling (approximately 1.5 kg), or other flammable (non-polluting) material on the grate. If necessary, pour some kerosene or diesel fuel on the materials.
3. Light the fire through the ash door. Use a flaming strip of paper instead of a match or lighter. Look away from the grate at the ignition time in case explosive material or volatile gas is present in the primary combustion chamber.
4. Once the fire has set (about 5 minutes), add approximately, 1-2 kg of combustible material (not medical waste) through the ash door.
5. Monitor the thermometer on the chimney until the temperature stabilizes (about 5 minutes).
6. Add fuel to the fire (about 2 kg).
7. Repeat the procedure until the thermometer indicates a temperature of at least 600°C and close the ash door.



**Important:**

**Do not** attempt to burn wet medical waste in the incinerator.

## LOADING AND DESTRUCTION OF MEDICAL WASTE

8. Before loading the packages to be burned, store them in the room designed for this purpose.
9. Load the safety boxes and plastic bags to be burned through the loading door on top of the incinerator.



10. If the needle cutter containers are disposable, place them in the needle weir; if the needle cutter containers are not disposable, empty the needles into the needle weir and save the containers for reuse.

**Important:** Do not look directly into the incinerator during the operation. Glass bottles (often placed in waste containers) explode when exposed to extreme temperatures

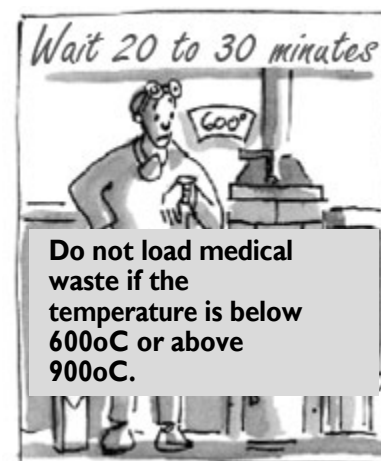
Do not burn PVC plastics.

They release toxic emissions to the environment.

### 7.1. Proportions of waste and fuel in a load

"Loading ratios" are critical to reducing fumes. The cleanest loading ratio is achieved by loading a safety box every ten minutes. But these proportions are difficult to achieve

precisely because the filling level of the safety boxes varies. The best "loading ratios" are indicated by observing the temperature indicator.



Ignition and preheating will take 20-30 minutes.

### 7.2. Working without temperature monitoring

Some incinerators are not equipped with a thermometer, so the operator must estimate the temperature empirically. Inexperienced operators should not be in charge of incinerators that do not have a thermometer.

An excellent visual cue is the color of the smoke that can be seen through the secondary air vent in the chimney.

#### Visual clue to assess temperature

- If an intense flame can be seen through the secondary vent, the temperature must be over 600°C.
- If the smoke is dense, white, gray or black it means that the combustion is poor and the temperature is either below or above what is appropriate.
- When temperatures are too high the chimney glows.

### 7.3. Loading

7.3.1. Only load waste that has been weighed and recorded in the operator's logbook

7.3.2. Load through the top loading door, not the front ash door.

7.3.3. Open the loading door just before depositing medical waste and close it immediately afterward to avoid exposure to toxic gases.

7.3.4. Load *safety boxes* only when the temperature is above 600°C but below 900°C.

7.3.5. Load *waste bags* only when the temperature is above 700°C.

**7.3.6.** If the temperature drops below 600°C, only use fuel (wood, coconut husks, etc.) and no medical waste.

**7.4.** *Mixtures and proportions of waste to be loaded*

1. Do not load safety boxes or bags of waste that are too wet. Dry them in a dry, warm, well-ventilated area (e.g., on the concrete slab near the top of the incinerator).
2. Highly heat-producing fuels (e.g., plastics, cardboard, paper, and dry cloth) are used to maintain a good temperature for burning hospital waste bags.
3. Burn a mixture of safety boxes and non-sharp waste bags when both are available. (Sort and label the waste in separate bags at the site where it is generated).
4. As a general rule: burn the safety boxes to increase the temperature in the incinerator, and the bags of other waste, to *reduce the temperature* in the incinerator.

**8. END OF COMBUSTION/ COOLING**

When all the hospital waste has been burned and the indicated temperature drops below 600°C, go to the "End of combustion/ cooling" step.

Once the waste is burned, the fire takes some time to die and the embers to cool. This allows the 'fixed carbon' in the waste bed to burn, reducing toxic fumes and ensuring that all waste is completely destroyed.



**8.1. Procedures**

1. Add 1-2 kg of fuel (wood, coconut husks or other agricultural waste fuels), when the temperature drops below 600°C.
2. Do not leave the UTD until the temperature drops
3. below 400°C (if there is no thermometer, wait until the fire is reduced to a bed of embers), to avoid an accident.
4. Wait for the incinerator to cool for at least three hours before removing the ashes.

**8.2. Cleaning - including ash removal.**

At the end of the combustion process, residues remain. These residues are a mixture of the ashes of the fuels burned during the preheating of the incinerator, the ashes of safety boxes of syringes and non-flammable materials such as needles, scalpels, etc. and the glass of vials. It is important to carefully dispose of all of these residues, as they are toxic and may contain sharp objects.

If the hospital waste load has been incinerated according to "best practices", the needles are sterilized and cooked. This eliminates the risk of infection from needle sticks. Follow the instructions below.

1. Always wear gloves and a protective mask when removing ashes.
2. Do not handle ashes or other solid residues with bare hands. Always wear protective clothing, including gloves. Use the rake provided in the UTD tool kit to rake ashes and other non-combustible waste directly into the ash receptacle.
3. If the incinerator is operated daily, remove the ash and other non-combustible waste the next day before the incinerator is restarted.
4. If the incinerator is not operated daily, remove the ashes the same day, after a few hours or the next morning. Do not leave ashes in the incinerator for a long time.

**Important:** the ash is contaminated. Always wear gloves and a protective mask when emptying the ashes.

5. Carefully sweep the area around the incinerator to ensure that all needles or non-combustible waste are in the ash receptacle.
6. Do not forget to replace the port cover to prevent accidents.
7. At ground level, two additional hatches are placed in the concrete slabs on each side of the incinerator. Open them regularly and distribute the ashes regularly in the receptacle.

## 9. RECORD KEEPING AND REPORTING

**UTD activities are recorded in three different forms:**

1. **The Waste Treatment Report** indicates the amount and type of waste deposited at the UTD when the operator is present and provides a monthly report of waste to be burned (see *Table 1 and Appendix 1*).
2. **The Waste Treatment Report** shows the amount of waste destroyed at each incineration (see *Table 2 and Appendix 2*).
3. The Tools and Equipment Sheet lists available equipment, its status, and problems and failures encountered with the UTD items.

The operator is responsible for keeping the reports according to the following conditions:

1. Submit reports to the Waste Management Supervisor every month.
2. Keep a copy of all reports at UTD. These reports should always be available in the event of a site inspection.
3. Prepare monthly/quarterly reports of waste management activity based on information from daily reports.

### 10.1. Report of the deposited waste

The Waste Treatment Report's purpose is to track the quantities and sources of waste deposited. This report does not provide complete information since waste deposited in the absence of the operator is not included.

Table 1 shows how the form should be completed

1. Complete the **Waste Deposit Report** for each delivery of waste deposited at UTD.
2. Obtain the signature of the person depositing the waste on the report.



Table 1: Sample Waste Deposit Report						
Care Center: <i>PIMS</i>			Month/Year: <i>September 2004</i>			
Type of incinerator: <i>small scale</i>			Name of incinerator operator: <i>Raja incinerator De Montfort</i>			
Day of the month	Waste deposited		Origin of the waste		Name of the person dropping off the waste	Signature of the person dropping off the waste
	Cutting edges (kg)	Other (kg)	Transportation to UTD	Department or Location		
<i>04/10/43</i>	<i>3</i>	<i>1.5</i>	<i>Bicycle</i>	<i>Timbaktu</i>	<i>Ghandi</i>	<i>ttt</i>
<i>17/4/0421</i>	<i>2</i>	<i>1</i>	<i>No</i>	<i>PPE part yoti</i>	<i>Jyoti</i>	<i>ttt</i>

### 10.2. Report of the destroyed waste

- 1) Complete this report for each incineration.
- 2) Sign in the last column **for each entry**.

**Table 2** shows how to complete **the Waste Treatment Report**

Table 2: Waste Treatment Account Model						
Care center : <i>Pondicherry</i>			Month/Year: <i>January 04</i>			
Type of incinerator: <i>De Montfort Mark 8A</i>			Name of the incinerator operator: <i>Raja</i>			
Day of the month	Incinerated waste		Auxiliary fuel		Time spent at UTD	Signature of the operator
	Cutting edges (kg)	Other (kg)	Type	kg/liter		
<i>1</i>	<i>2,5</i>	<i>0,5</i>	<i>Wood</i>	<i>12 Kg</i>	<i>4</i>	<i>Raja</i>

### 10.3. Report on the condition of tools and equipment, problems encountered, and failure of the UTD to operate

1. Complete **the UTD Tool and Equipment Condition Report, Monthly Problems Encountered, and Operational Failure**.
2. Include a note in this report if basic supplies (e.g., fuel, soap, etc.) are missing. Submit requests for the procurement of these items according to the operating procedures in place at the primary care center.
3. Submits **Tool and Equipment Condition Report** at the end of each month to the Waste Management Supervisor.

Report on the condition of the tools and equipment, problems encountered and documentation of the failure of the UTD to function:

- presence/absence and condition of tools, equipment and protective clothing,
- breakage or other problems of the UTD,
- incorrect waste separation, and
- Inaccurate waste management practices of deposited waste.

## 10. MAINTENANCE RESPONSIBILITIES OF THE OPERATOR

- I. Maintenance of the UTD
  - Keep the area around the UTD clean; do not allow the area to become soiled
  - Store safety boxes and other medical waste properly in the UTD waste room.
  - Store fuel inventory in the UTD's dedicated room.
  - Keep the concrete slabs on either side of the incinerator clean, and do not use them as permanent storage areas. However, the space on the concrete slabs at the top of the incinerator can be used temporarily to dry the waste before it is burned.
  - Keep tools, records, and protective gear in the storage box provided in the UTD.
2. Handle tools and protective clothing with care and keep them clean
3. Immediately report any degradation of the UTD that interferes with its proper operation to the Waste Management Supervisor.
4. Make simple repairs but avoid band-aid solutions.
5. Systematically complete and submit all 3 types of monthly reports.

II. UTD SECURITY

The operator will be held responsible in case of an accident.

1. Always keep the UTD locked.
2. Do not allow unauthorized persons to enter the UTD during cremations
3. Ensure that the waste management supervisor has a key to the UTD.
4. Immediately report any acts of vandalism, theft, or break-ins to the Waste Management Supervisor.

Care Center:			Month/Year:			
Incinerator Type:			Name of incinerator operator:			
Day of month	Waste deposited		Origin of the waste		Name of the person dropping off the waste	Signature of the person dropping off the waste
	Cutting edges (kg)	Other (kg)	Transportation UTD	Department Location		

Care Center:			Month/Year:			
Type of incinerator			Name of incinerator operator:			
Day of the month	Incinerated waste		Auxiliary fuel		Time spent at UTD	Signature of operator
	Cutting edges (kg)	Other (kg)	Type	kg/liter		



Tool and equipment sheet for UTD operator

Care Center		Month :	
Type of incinerator:		Name of the incinerator operator	
<b>Tools and equipment</b>			
Category	Article	Available	Condition
Tools	Nail brush/dustpan		
	Rigid broom		
	Ash rake		
	Shovel		
	Sweeping brush and wire		
Security	Sand bucket		
	Fireproof gloves		
	Protective glasses/masks		
	Apron or suitable clothing covering the entire upper body and		
	Lock for the door of the UTD		
	First aid kit		
Reports	Balance		
	UTD reports for		
<b>Problems:</b>			
Packaging or sorting of deposited waste			
Fuel and flammable products for the			
Other			
<b>Anomalies of the De Montfort Waste Treatment Unit</b>			
Date	Description	Current status	

## ANNEX 55. OPEX - CAPMANEX FOR INCINERATORS

**OpEx:** : **Operating and minor maintenance expenditure** covers the cost of operating a system and includes such things as wages, energy costs and the cost of chemicals that are regularly needed.<sup>10</sup>

**CapManEx:** **Capital maintenance expenditure** refers to the (occasional) costs of renewing (replacing, rehabilitating, refurbishing, restoring) assets in order to ensure that services continue at the same level of performance that was first delivered.<sup>11</sup>

category	process	Expense	qty	unit	remarks	replacement frequency	unit cost	amount per use (with replacement allowances)	annual amount (1 incineration per week)
consumable	preparation for incineration	creation of an initial (rotating) fuel stock	10	kg	this initial stock of fuel	NA	500 Ar		5 000 Ar
	start: ignition	kerosene	0,1	liter	start-up of the incinerator	per batch	2 500 Ar	250 Ar	13 000 Ar
		wood and light combustible materials	1,5	kg		per batch	500 Ar	750 Ar	39 000 Ar
	preheating	fuel: firewood	2	kg	fuel used to preheat the incinerator	per batch	500 Ar	1 000 Ar	52 000 Ar
	incineration	fuel: firewood	6	kg	fuel used to maintain the combustion temperature at 650°C	per batch	500 Ar	3 000 Ar	156 000 Ar

<sup>10</sup> Source: WashCost Briefing Note 1b. *Services are forever: The importance of capital maintenance (CapManEx) in ensuring sustainable WASH services*  
Dr Richard Franceys, Cranfield University, Dr Christelle Pezon, IRC International Water and Sanitation Centre, August 2010

<sup>11</sup> Ibid.

category	process	Expense	qty	unit	remarks	replacement frequency	unit cost	amount per use (with replacement allowances)	annual amount (1 incineration per week)
equipment and material	PPE replacement	leather gloves	1	pair	equipment replacement allocation	annual	10 500 Ar	202 Ar	10 500 Ar
		apron	1	unit		annual	50 000 Ar	962 Ar	50 000 Ar
		cotton work suit	1	unit		annual	40 600 Ar	781 Ar	40 600 Ar
		anti-dust mask	1	piece	must be changed regularly	per batch	500 Ar	500 Ar	26 000 Ar
		protective glasses	1	piece	equipment replacement allocation	annual	5 500 Ar	106 Ar	5 500 Ar
	material replacement	broom	1	Piece		annual	5 000 Ar	96 Ar	5 000 Ar
		rake	1	piece		annual	25 000 Ar	481 Ar	25 000 Ar
		metal shovel	1	piece	annual	15 300 Ar	294 Ar	15 300 Ar	
	tracking and tracing	waste reception sheet	1	piece	1 booklet (100 pages per year)	annual	1 500 Ar	29 Ar	1 500 Ar
		material condition report form	1	piece	1 booklet (100 pages per year)	annual	1 500 Ar	29 Ar	1 500 Ar
		incinerator condition monitoring sheet	1	piece	1 booklet (100 pages per year)	annual	1 500 Ar	29 Ar	1 500 Ar
		waste treatment report form	1	piece	1 booklet (100 pages per year)	annual	1 500 Ar	29 Ar	1 500 Ar
maintenance		estimated maintenance budget	2%	lump sum	cracks, rust spots to eliminate... 2% of the cost of the incinerator	annual	-	3 208 Ar	166 829 Ar
staff		cost of labor assigned to the incineration of a batch	1	flat rate per day of incineration	cost to be integrated in the global salary budget	per batch	4 000 Ar	3 500 Ar	182 000 Ar

## ANNEX 56. TERMS OF REFERENCE SLUDGE MANAGEMENT STUDY

### CONTEXT

In most rural areas of Madagascar, where faecal sludge collection services are available, excreta are collected in individual sanitation systems installed at the house, in the vicinity of the dwelling or public toilets. Whether they are septic tanks, dry latrines, bucket latrines, unplugged public toilets, or other types of systems, all of these systems store faecal sludge that needs to be disposed of regularly. If this sludge is not managed properly, it can cause serious harm to the rural environment and public health:

Environmental pollution can be caused by fumes from septic tanks or public toilets that are not connected to the sewer system and are not emptied regularly;

Large quantities of faecal sludge from institutional, public or individual sanitary facilities are dumped in an uncontrolled manner into the environment or left directly abandoned due to the lack of adequate disposal systems and ignorance of the laws on excreta disposal;

The sewage sludge is not recovered or is used in an unhygienic way in agriculture due to the lack of appropriate treatment.

All of these problems could be avoided with a proper system of fecal sludge management that includes a rational institutional mechanism and an adequate system of emptying sewage systems, ensuring minimum risk during handling and transport, and providing for a sludge treatment system that results in safe disposal or reuse. So the market potential still exists for the FSM.

As part of its sanitation component, the RANO WASH project aims to develop a pilot Fecal Sludge Management (FSM) activity that will complete the individual sanitation cycle.

The socio-cultural and economic context of the FSM sector is regionally specific, particularly with regard to the handling of fecal matter, especially by people who are complete strangers to the household concerned.

The history of the sector is also relatively developed thanks to the action of the various actors who have intervened in the regions of Madagascar. Several actors have been previously identified with different technologies: drying bed (Haute Matsiatra, Boeny, ..), Biodigesters (Foulpointe, Tana), planted burial (Vakinankaratra).

### SUMMARY TABLE OF FSM PROVIDERS IDENTIFIED TO DATE

Region	Communes	Type of market	Technology	Carrier of the activity	Functionality of the service
Atsinanana	Toamasina ville	Urban	Landfill	Private company	Functional
Atsinanana	Foulpointe	Rural - tourist	Biodigesters	Small operator supported by projects	Functional but struggling with sales
Vakinankaratra	Ambohimandroso-Ihazolava-Ambatolampy-Ampitatafika	Rural	Landfill	Private operator	Sites developed but struggling with profitability and operations
Haute Matsiatra	Fianarantsoa ville	Urban	drying bed	Private company supported by projects on an intermittent basis	Functional

## OBJECTIVES

To carry out a contextual analysis (2 functional sites and 2 non-functional sites) on the actors of the sector, then to propose a pilot site and revitalize the service.

The objective of the service is to benchmark existing fecal sludge management services, identify their weaknesses and possible areas for improvement, and select and support a service that has the most potential for development.

## KEY INDICATORS

For the comparison of existing services, the study should provide information on the following:

- The profile of the activity's owner
- The history of the private operators
- The blocking factors such as the economy and culture preventing the development of their activity
- The means of implementation.

Service support will be measured on the following indicators:

- The number of clients the service will get during the support period
- Volume of sludge treated
- The quality of the service (improvement of the quality of treatment and disposal)
- The growth of the company's turnover during the support period
- Amount of new co-financing injection during the support period,
- Environmental footprint
- Production capacity of processing by-product (fertilizer, gas, briquettes)
- Daily pumping capacity (different from the treatment capacity)
- Communal fees.

## DELIVERABLES

- Support from the Regional Directorate of Water, Sanitation and Hygiene,
- Effective involvement of the Commune after support,
- Identification of potential private sectors capable of managing the type of market with well-defined pre-selection criteria and consultation with the RANO WASH team,
- Possible proposal of a co-management or management with the Investors Builders
- Managers of the drinking water service in place to have an economy of scale
- Proposal and validation of the draft of a restricted tender document (AOR), based on the latest CAD model of RANO WASH on the drinking water market,
- The project has a representation of the situation of existing services, their potential and
- The project has a representation of the status of existing services, their potential and blocking factors that have prevented the development of the service
- At least one FSM service is revitalized, functional, and will have overcome the blocking factors previously identified
- A business plan for the service is developed with a 5-year service development plan, with proposed study scenarios for the possibility of merging the management activities of the drinking water service and FSM

## DURATION

The service is planned for a total duration of 4.5 months, including 4 weeks with the private sector contractor

The stages of the service are detailed as follows:

Steps	Duration
Step 1: Literature review and interviews with FSM providers, FSM	3 weeks

FSM detailed design improvement study	2 weeks
Step 2: development and presentation of Business Model scenarios, Management Contract model validated by the commune and DREAH based on the contract model of MEAH - WSUP and GRET, and the CAD model of Rano	3 weeks
WASH	3 weeks
Step 3: Development of model CAD plus proposal for detailed implementation plan	3 weeks by Rano WASH 4 weeks by private sector
<b>TOTAL</b>	<b>4.5 months</b>

### PAYMENT TERMS

Payment schedule	Period	Deliverables
20% of the total amount	After contract signature	Signed contract
30% of the total amount	Upon delivery of the evaluation report (APD FSM) (stage 3)	Evaluation and selection report of potential FSM services
30% of the total amount	Upon delivery of the second report and business plan, Tender Dossier, short list of potential candidates for Restricted Tender (step 4)	Functional (revitalized) FSM service: business plan based on sales over a 1-month period with the
20% of the total amount		selected private sector

### 3. DESIRED PROFILE

The provider shall have the following qualifications:

- Have experience in institutional support for urban sanitation and in the development of Public Private Partnerships in the WASH sector
- Public Private Partnership in the WASH sector,
- Have experience in the establishment and management of sludge in Madagascar
- Have experience in the marketing of sanitation services including the service of emptying
- Have experience in the field of sanitation marketing.

### SLUDGE MANAGEMENT OPERATORS INVOLVED IN THE RANO WASH STUDY

Regions	Communes concerned	Company Name Market Type Technology	Company Name Market Type Technology	Company Name Market Type Technology	Type of Company	Functionality of the service E-mail address Telephone	Functionality of the service E-mail address Telephone	Functionality of the service E-mail address Telephone
Atsinanana	Toamasina ville	CLEAN IMPACT	Company specialized in emptying services Urban	Landfill	Private company	Functional	<a href="mailto:herirabemanantsoa@gmail.com">herirabemanantsoa@gmail.com</a>	034 05 803 42 M. RABEMANANT SOA Herinirina
Atsinanana	Foulpointe	DIOTONTO LO FOULPOINT E	Rural tourist	Biodigesters	Small operator supported by projects	Functional but struggling with sales		Mme VALISCA (Mobile) 032 57 609 89 (Perso.) 032 90 689 40
Vakinankaratra	Ambohimandros o -lhazolava- Ambatolampy- Ampitatafika	DIOTONTO LO Vakinakaratra	Rural	Landfill	Private operator	Sites developed but struggling with profitability and operations		M. Pierre (Perso) 034 64 154 74 (Mobile) 033 25 913 37 (Pro.) 032 26 751 49
Haute Matsiatra	Fianarantsoa ville	ECODIO	Urban	Drying bed	Private enterprise supported by projects of	Functional	<a href="mailto:Ecodio.fianar@gmail.com">Ecodio.fianar@gmail.com</a>	Mme SEHENO (Pro.) 034 74 675 55

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Regions	Communes concerned	Company Name Market Type Technology	Company Name Market Type Technology	Company Name Market Type Technology	Type of Company	Functionality of the service E-mail address Telephone	Functionality of the service E-mail address Telephone	Functionality of the service E-mail address Telephone
								Enceinte Voirie Anjoma



## **ANNEX 57. RECOMMENDATIONS FOR THE IMPROVEMENT OF FSM SERVICES AND BUSINESS MODEL FOR ECO-DIO FIANARANTSOA**

### **RECOMMENDATIONS FOR THE IMPROVEMENT AND REVITALIZATION OF THE FECAL SLUDGE MANAGEMENT SERVICE OF ECODIO VIDANGE**

The project aims to encourage the participation of local private sector actors in the field of sanitation and to establish a framework for the sustainable development of their activities. To this end, the primary objective was to identify a potential service provider in the management of faecal sludge. The latter will benefit from support and reinforcement in order to revitalize the service and become a pilot site. The following recommendations were established from the field diagnostics.

#### **I- INSTITUTIONAL RECOMMENDATIONS**

The development of the advantages of "ECODIO Vidange" passes by the PPP (Private Public Partnership), in order to grant him a legitimacy and a stability necessary for an optimal development. The involvement of all parties (CUF, District of Fianarantsoa I, Haute Matsiatra Region, DREAH Haute Matsiatra,...) intervening in the field of sanitation is also necessary in order to limit the divergence of competences between the private and public sectors.

##### **I.1. COMMUNAL INSTITUTIONAL FRAMEWORK**

The communal institutional context should be :

- ✓ Adapted to the local market for fecal sludge disposal in which the private sector operates. A decentralized institutional framework allows for better consultation between the private and public sectors. The local population is also better represented.
- ✓ With members who are active in the sanitation field and can negotiate, develop, manage and oversee relationships with the private sector.
- ✓ Able to generalize and represent the work in a more global framework.
- ✓ Having the will to act.

Delegation of fecal sludge services to the private sector does not imply an abandonment of public sector responsibilities.

##### **❖ The tasks of the communal public sector (ROADS or CUF)**

Public sector involvement should be voluntary, with the following goals:

- ✓ Filling possible legislative gaps within the commune: consulting with the control forces (police, gendarmerie, for example), making sanitation compulsory for the population, regulating dumping (in the STBV of Ambalataratasy for Fianarantsoa).
- ✓ Acting on the financial aspect of emptying costs: helping the services reach the poorest segments of the population or limiting charges related to corruption by public officials.

This point also takes into account the control of the prices of the services applied by ECODIO, which could be informal or formal by setting a price range.

- ✓ Coordinate outreach and engagement activities with local populations.
- ✓ Formalize the private sector by controlling the quality of services and the number of companies active in the field and by defining the rules of operation: this ensures the legitimacy of the private sector in the eyes of the population and limits the saturation of demand in relation to supply.

Some infrastructures (STBV Ambalataratasy) may be located outside communal boundaries, due to the unavailability of land in a decentralized urban setting. The involvement of the public authorities in these regions must also be taken into account.

Finally, the involvement of an elected municipal official in the management of faecal sludge ensures a certain dynamism, due to a "political pressure" to succeed. All of these tasks must be carried out in consultation with the stakeholders.

## **I.2. REGIONAL INSTITUTIONAL FRAMEWORK (Haute Matsiatra Region, DREAH, District,...)**

In order to complement and frame the work done with the communal institutional framework, it is often necessary to include representatives of higher hierarchical bodies, with more competencies, greater political weight and the possibility of generalizing the experience and filling more global institutional gaps (planning). The role of the regional institutional framework is therefore to :

- ✓ Ensure the generalization of the experience of fecal sludge management. This point also consists in raising awareness of the state authorities of the need to manage faecal sludge.
- ✓ Acting on the financial and institutional stability of ECODIO: improving legislation, representation to public services at the regional level.
- ✓ Provide possible technical support: skills and knowledge but also material support.
- ✓ To follow the development of the field as a whole and benefit from the experience in order to improve national tools: legislation, national policies, education, training of civil servants.
- ✓ To exercise their specifications of ECODIO if it exists, in order to bring a national legitimacy to the actors involved in the management of faecal sludge: for example, the respect of the legislation gives legitimacy to the ECODIO company.

## II- LEGAL RECOMMENDATIONS

Improving the legislative framework proposes the participation of legislators in consultative frameworks, which calls for an enhanced relationship between legislators and the private sector. The development of monitoring strategies in consultation with all stakeholders should accompany improvements in legislation.

### II.1. LEGAL FRAMEWORK OF THE PRIVATE SECTOR

The role of actors working in the private sector (ECODIO for Fianarantsoa) must be recognized by legislation in order to ensure institutional stability. Legislative recognition implies that :

- ✓ ECODIO has the possibility to refer to justice in case of litigation or external interference.
- ✓ Their relationship with the control forces is transparent.
- ✓ Respectability towards donors and banks, allowing the granting of investment capital, with the possibility of creating investment management contracts with legal clauses.

If not, increased consultation between stakeholders is necessary to resolve any disputes between them. This consultation structure often requires the involvement of a competent and respected third party who will decide on disputes and chair discussions, as well as transparency in decision-making and management.

Making justice affordable for the company is also a challenge given the existence of informal emptiers in Fianarantsoa.

### II.2. LEGAL FRAMEWORK FOR THE SANITATION OF FAECAL SLUDGE

Strong legislation (Water Code, Law 98-029, **subsection III on sanitation**) defining the responsibilities of the population with respect to sanitation, as well as the ways of disposing of, dumping, treating and reusing faecal sludge, allows for a certain efficiency of the private sector and decreases the risks of infrastructure investments.

If not, it is possible to compensate for legislative gaps with tools such as:

- ✓ **Awareness-raising:** In cases where the population is not obliged to be sanitized, it is necessary to emphasize the benefits to them: improved sanitation in their neighborhoods, improved water and food quality, a consequent reduction in the risk of disease, and protection of the environment. Awareness-raising implies a good relationship between the waste disposal companies and their clients, as well as the involvement of the communal public sector and other structures close to the population in the activities. Awareness-raising then leads to a powerful tool: popular pressure among the inhabitants.
- ✓ The development of "**communal legislation**": defining strict management rules adapted to the environment: place of discharge, obligation to empty for the population. In the case of Fianarantsoa, a municipal sanitation and hygiene regulation (No. 90

CUF/CAB 2020) has been drawn up by the municipal council, but its application remains to be seen.

- ✓ **Consultation:** between all members and joint decision making. The participation of representatives of the local population in the development of the area facilitated then the awareness.

Consultation phases with all parties and IEC (Information - Education - Communication) sessions will have to be carried out for the implementation of **Law 95-035** authorizing the creation of organizations in charge of urban sanitation and setting fees. This organization will then be the only one approved by the project owner to carry out the activity on the territory. In addition, the rate of the fee will be regulated from now on and not fixed at a flat rate as is currently the case.

### III- SOCIOLOGICAL RECOMMENDATIONS

The local population is the nucleus of sludge management. They produce the waste, supply the demands, suffer the impacts, and keep the service running by paying the bills. Involving local people in all decision-making that affects them could be one of the keys to a successful project. Otherwise, an awareness campaign must be conducted, the effectiveness of which depends on :

- ✓ A sociological study of the population to determine the essential points to be addressed;
- ✓ A search for existing or planned outreach programs in other areas to complement them;
- ✓ The most favorable tools to reach the largest number of people: print media, radio, door to door, local leaders (chief of fokontany, Mayor), people able to influence the population (Doctors, politicians, ...);
- ✓ The degree of public sector involvement;
- ✓ Other associations capable of representing the local population in the consultation and capable of conducting awareness campaigns.

Awareness is everyone's concern and cannot be limited in time and space, nor in the subjects targeted. It is necessary when the level of knowledge is not adapted to the actor's role. Let's take the example of emptying companies and manual emptying workers who focus only on the need to work without respecting basic hygiene rules (wearing minimum personal equipment).

The difference between the financial values of willingness to pay and ability to pay remains a good indicator of the acceptance of sludge management programs and the success of outreach efforts.

One of the most effective tools for involving people in sludge management is for companies to innovate in order to build better relationships with their customers and work with operational and financial transparency.

After the socio-economic study carried out on the population in the city of Fianarantsoa, the interviews with the emptying company as well as the observations made in the field, the needs of an awareness campaign were defined. These must be based on four points:

- ✓ Improving knowledge of health hazards related to physical contact with septage: the need to dispose.
- ✓ Improving knowledge of the health hazards associated with the uncontrolled discharge of septage: the need to treat.
- ✓ Improving knowledge of the costs of disposing of septage from a home: the need to pay.
- ✓ Improving people's emptying and payment habits: the need for foresight

#### **IV- TECHNICAL RECOMMENDATIONS**

The recommendations below are specifically related to the improvement of the general operation of ECODIO. They are :

- The supply of additional equipment and accessories to optimize the performance of the emptying service

Currently, the services of ECODIO emptying are limited to one emptying per day for the treatment of simple pits due to lack of adequate materials. Indeed, the emptying of these types of pits is generally done by hand (using a bucket and shovel because the sludge is dry and mixed with household waste), which takes much more time than the emptying of septic tanks done with the help of a sludge suction tank. The use of the pumping tank is faster and more reliable, and therefore allows for several emptying operations in one day. However, it is quite bulky which limits the accessible sites such as narrow streets and bad roads. The best solution adapted to these limitations would be the provision of a sludge pump (GULPER type) or a portable hand pump (MAPET type) that can handle all types of requests and in any location in the city. Nevertheless, accompanying measures will have to be carried out such as the sensitization of the population using simple pits not to throw the household waste inside the pit. In addition, the mobilization of these pumps would be less expensive.

- **Increased workload**

The increase in the volume of work is reflected in the increase in personnel. Sufficient staff allows for day and night emptying services with alternating emptying workers and thus increases the efficiency of the service.

- **Improvement of the living conditions of the workers**

Ensure a favorable and sustainable work environment for workers, especially for those emptying and working directly on the treatment site. Comply with the Labor Code and ensure a decent salary to sufficiently motivate staff.

The most important aspect of manual emptying is to ensure that workers are properly protected with gloves, boots, coveralls and masks. Regular medical examinations and vaccinations should be required for each manual emptier.

▪ **Improved communication and sales**

The sales technician, responsible for customer care, must be equipped with a rolling machine to facilitate travel and reach a maximum number of customers during the day.








Redo an awareness campaign, use all possible means of communication: media, billboards, etc.








Implement a new outreach strategy:

- Conducting promotions on oil change services;
- A delivery service for a minimum quantity required for the sale of BIOZEZIKA fertilizers. For small orders, small distributors or resellers can be installed in town to be closer to the customers;
- Available 6 days a week and must be reachable 7 days a week via cell phone for inquiries, appointment requests and orders






## Business model






Made for : RANO WASH Directed by: SANDANDRANO Date: .../09/2022 Version:

<b>Key partners</b> 	<b>Key activities</b> 	<b>Value proposition</b> 	<b>Customer Relations</b> 	<b>Customer Segments</b> 
<p>The NGO PRACTICA FOUNDATION and the EAURIZON 2025 program for financial and technical support.</p> <p>The RANO WASH project for institutional, financial and technical support.</p> <p>The CUF for the implementation of texts and laws in force relating to urban sanitation in Madagascar. It must contribute to the education and the incitement of the population towards a change of behavior, the preservation of the environment and the use of the services of approved emptying (respecting the standards).</p> <p>All suppliers of raw materials (Faecal Sludge) among others: Hotels, Public and Private Institutions, Schools, Sanitary Blocks, etc. who are potential suppliers but also individuals and simple inhabitants who are regular suppliers.</p> <p>Garages and specialists for periodic maintenance and repairs of rolling stock (tractor, tanker, trailer, etc.) and other equipment.</p>	<p>Customer need surveys.</p> <p>Provision of appropriate pit emptying services.</p> <p>Awareness and education of the target population.</p> <p>Improving cleanliness, well-being of everyone and preservation of the environment.</p> <p>Promotion of the service (price m<sup>3</sup> of emptying),</p> <p>Communication, advertising</p> <p>Enhancement of customer returns</p> <p>Coordination of emptying and treatment system (drying bed),</p> <p>Application of the texts and laws in force relating to urban sanitation for the CUF.</p>	<p>Quality service: Legal, fast, guaranteed.</p> <p>Clean, affordable emptying service at all levels and adapted to all types of pits.</p> <p>The price of BIOZEZIKA fertilizers is affordable for the population.</p>	<p>Service adapted and accessible to the entire population,</p> <p>Service at the request of customers.</p> <p>Customers choose the terms of service (e.g., the amount of sludge to be removed from their pit according to their finances)</p> <p>A Sales Technician serves as an interface and customer support to improve communication with the target population.</p>	<p>Households using septic tanks (10%) and simple tanks (70%),</p> <p>Private or public establishments and public places subject to high concentrations of people in motion (Markets, Parking lots, Service stations, Schools, Hotels...)</p> <p>Public and private establishments working in the field of plantation and agricultural production. Among the large-scale establishments, we can mention: TRANOBEN'NY TANTSAHA, BIONNEX (Artemisia), THE SAHAMBAVY, the Wine growers (many vine plantations, wine is one of the particularities of the Region), the Rice growers,....</p> <p>Small households with private gardens.</p>
	<b>Key resources</b> 		<b>Distribution channels</b> 	
	<p>Equipment and rolling stock to facilitate emptying work.</p>		<p>The best distribution channel for customers is media coverage through</p>	

Key partners 	Key activities 	Value proposition 	Customer Relations 	Customer Segments 
<p>Individual service providers, contractors or small private companies who carry out work on behalf of ECODIO in case of large orders.</p>	<p>Adequate sludge treatment infrastructure: Ambalataratasy sludge treatment plant.</p> <p>Reception desk, accessible to all and especially visible for customer information</p> <p>Sufficient, dynamic and motivated staff,</p> <p>Availability of a customer manager as a direct contact between the customer and the company (is frequently in the field)</p> <p>Provision of personal protective equipment to staff</p>		<p>TV shows, advertisements, social networks</p> <p>No outreach techniques at this time other than the availability of a Facebook account. Most of the customers have known ECODIO only by word of mouth.</p> <p>Use of other channels: field interviews with the population, home visits (VAD).</p>	
<p><b>Costs</b> </p>		<p><b>Revenues</b> </p>		
<p>ECODIO's business model is primarily <b>cost driven</b>. Generally speaking, the most expensive key resources are equipment and material maintenance and staff salaries.</p>		<p>For the time being, customers pay only for the service provided. The cost is variable depending on the type of service requested among those</p>		



Key partners 	Key activities 	Value proposition 	Customer Relations 	Customer Segments 																								
<p><b>Cost Drainage</b></p> <table border="1"> <thead> <tr> <th>Service</th> <th>Rate per m<sup>3</sup> (Ariary)</th> <th>Observations</th> </tr> </thead> <tbody> <tr> <td>Septic tank emptying</td> <td>75 000 - 150 000</td> <td>Depending on the type of customer</td> </tr> <tr> <td>Simple pit emptying</td> <td>55 000</td> <td>+20 000Ar if 5 to 10 km +40 000Ar if 10 to 15 km</td> </tr> <tr> <td>Pit opening</td> <td>From 10 000/pit</td> <td></td> </tr> <tr> <td>Pit Closure</td> <td>From 10 000/pit</td> <td>Materials to be paid by the customer</td> </tr> <tr> <td>Installation of Satopan type interface</td> <td>85,000/interface</td> <td>Satopan included, other materials at customer's expense</td> </tr> <tr> <td>Slag removal</td> <td>30 000</td> <td></td> </tr> <tr> <td>Placement of bottom ash</td> <td>30 000</td> <td>Materials to be paid by the customer</td> </tr> </tbody> </table>		Service	Rate per m <sup>3</sup> (Ariary)	Observations	Septic tank emptying	75 000 - 150 000	Depending on the type of customer	Simple pit emptying	55 000	+20 000Ar if 5 to 10 km +40 000Ar if 10 to 15 km	Pit opening	From 10 000/pit		Pit Closure	From 10 000/pit	Materials to be paid by the customer	Installation of Satopan type interface	85,000/interface	Satopan included, other materials at customer's expense	Slag removal	30 000		Placement of bottom ash	30 000	Materials to be paid by the customer	<p>offered by ECODIO (simple emptying, slag replacement, improvement of the pit system, etc.)</p> <p>Currently, customers pay directly after the service is completed.</p> <p>Apart from the income received from the normal emptying services, ECODIO has a subsidy contract with the 13 sanitary blocks built by PRATICA (50,000Ar/sanitary block is paid monthly into the accounts of ECODIO),</p> <p>Receipts related to the sale of BIOZEZIKA products (Ar 200 per Kg).</p>		
Service	Rate per m <sup>3</sup> (Ariary)	Observations																										
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<p><b>Maintenance cost</b></p> <table border="1"> <thead> <tr> <th>Designation</th> <th>Unit cost (Ariary)</th> <th>Annual cost (Ariary)</th> <th>Frequency</th> <th>Observation</th> </tr> </thead> <tbody> <tr> <td>Maintenance of rolling stock</td> <td>2 500 000</td> <td>2 500 000</td> <td>All/year</td> <td>Overall cost of maintenance</td> </tr> </tbody> </table>		Designation	Unit cost (Ariary)	Annual cost (Ariary)	Frequency	Observation	Maintenance of rolling stock	2 500 000	2 500 000	All/year	Overall cost of maintenance																	
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Key partners 		Key activities 		Value proposition 	Customer Relations 	Customer Segments 
Fuel	40 000	12 480 000	Per day	The cost of fuel has been fixed on the basis of 40 000Ar per day		
PPE for workers	240 000	960 000	Replaced every 3 months	Concerns the equipment of all the personnel except the Director and the Manager		
Replacement of filter materials	750 000		per bed/every 5 to 10 years or depending on clogging	Sand can be added frequently as needed		
Maintenance of the solar pumping system (water)	1 500 000		To be replaced every 5 to 10 years			
<p>Currently, the company ECODIO pays a fixed fee of <b>Ar 100 000</b> per month to the Commune.</p>						

## V- CERTIFICATE DELIVERY FOR ECO-DIO!

In March 2022, ECO-DIO was elected among 6 African companies that received funding from the "Weast Logistics Innovation Lab" program organized by the #ToiletBoardCoalition. The coaching and exchange of experiences lasted 6 months with the selected companies and other sector players already involved in sludge management in Kenya, Burkina Faso, Uganda, Malawi and Ghana. The objective is to make ECO-DIO more professional. A certificate was awarded by the Toilet Board Coalition to ECO-DIO on October 20, 22 in recognition of its capabilities.




## ANNEX 58. NDE HO MAITSO TOOLS

Sample posters. All resources are available


[https://drive.google.com/drive/folders/1EXiMkSXvU0uHuR9mN4\\_lvASOfZcupwQ](https://drive.google.com/drive/folders/1EXiMkSXvU0uHuR9mN4_lvASOfZcupwQ)

Uul' rapita per




### Nde'ho Maitso !


**Antoka iray hampaharitra ny fotodrafitr'asa famatsiana rano fisotro madio ny fiarovana ny tontolo iainana manodidina.**




Mihena ny kalitao sy habetsahan'ny rano raha tsy voazaro ny sahandraka noho ny fambolena sy fiompiana, na fikapana huzo na fandroana ala.  
 Sarobidy ny loharano ka tsy azo idiran'ny olona sy ny biby.



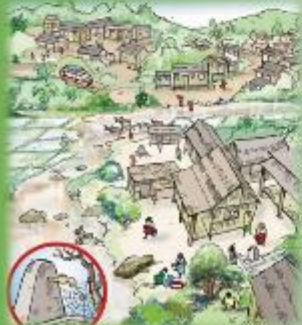
Hapotahin'ny olona ny simben-drano ary indrindra ny sarony izay mbaro ny fahadiovan'ny rano, raha tsy mifely. Malaky simba ny simben-drano raha tsy mipetraka amin'ny toerana marina tsara.



Ho vaky halangana ny fantsona-drano raha tsy alevina lalina tsara.



Ho simba tantoraka ny fotodrafitr'asa lombonana ary tsy haendaha intsony ny rano rehefa tsy manaraka ny fitaipika fampiasana azy irany ny mpanjifa.





Hiverina haka rano amin'ny toerana tsy azo antoka sy lavitra ny vahoaka rehefa simba ny paompy.

**Arovy ny ala ary voaloe zava-maitso ny tontolo rehetra manodidina ny fotodrafitr'asa !**

**Raha mitranga ny iray amin'ireo voalaza ireo dia lazao halangana ny Kaominina !**

**Andraikitra ny Kaominina ny mampita amin'ny Mpitantana ny famatsiana rano fisotro madio ny fitakiana avy amintsika vahoaka !**





## ANNEX 59. LIST OF CERTIFIED ODF COMMUNES Q4.22

	REGION	District	Commune	Certification Year
1	ALAO TRA MANGORO	MORAMANGA	Morarano gara	FY20
2	ALAO TRA MANGORO	AMBATONDRAZAKA	Amparihintsokatra	FY20
3	ALAO TRA MANGORO	AMBATONDRAZAKA	Antsangasanga	FY20
4	ALAO TRA MANGORO	AMPARAFARAVOLA	Ambodirano	FY20
5	ALAO TRA MANGORO	AMPARAFARAVOLA	Ambohimandroso	FY21
6	ALAO TRA MANGORO	AMPARAFARAVOLA	Ranomainty	FY21
7	ALAO TRA MANGORO	AMBATONDRAZAKA	Bejofo	FY21
8	ALAO TRA MANGORO	MORAMANGA	Belavabary	FY21
9	ALAO TRA MANGORO	AMBATONDRAZAKA	Soalazaina	FY21
10	ALAO TRA MANGORO	AMPARAFARAVOLA	Sahamamy	FY22 (Q2)
11	ALAO TRA MANGORO	AMPARAFARAVOLA	Amboavory	FY22 (Q2)
12	ALAO TRA MANGORO	AMPARAFARAVOLA	Vohimena	FY22 (Q2)
13	ALAO TRA MANGORO	AMBATONDRAZAKA	Ambohitsilaozana	FY22 (Q2)
14	ALAO TRA MANGORO	AMBATONDRAZAKA	Ambohiboromanga	FY22 (Q3)
15	ALAO TRA MANGORO	MORAMANGA	MANDIALAZA	FY22 (Q4)
16	ALAO TRA MANGORO	AMPARAFARAVOLA	AMPASIKELY	FY22 (Q4)
17	ALAO TRA MANGORO	AMPARAFARAVOLA	ANDREBAKELY SUD	FY22 (Q4)
18	AMORON'I MANIA	AMBOSITRA	Kianjandrakefina	FY22 (Q1)
19	ATSINANANA	TOAMASINA II	Andodabe	FY21
20	ATSINANANA	TOAMASINA II	Foulpointe	FY21
21	ATSINANANA	TOAMASINA II	Andranobolaha	FY21
22	ATSINANANA	VATOMANDRY	Tanambao Vahatrankaka	FY21
23	ATSINANANA	VATOMANDRY	Amboditavolo	FY21
24	ATSINANANA	BRICKAVILLE	Anjahamana	FY21
25	ATSINANANA	VATOMANDRY	Niarovana Caroline	FY21
26	ATSINANANA	VATOMANDRY	Ilaka Est	FY21
27	ATSINANANA	TOAMASINA II	Ampasimadinika Manambolo	FY22 (Q1)
28	ATSINANANA	VATOMANDRY	Ifasina I	FY22 (Q1)
29	ATSINANANA	VATOMANDRY	Ifasina II	FY22 (Q1)

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	<b>REGION</b>	<b>District</b>	<b>Commune</b>	<b>Certification Year</b>
30	ATSINANANA	VATOMANDRY	Maintinandry	FY22 (Q2)
31	ATSINANANA	TOAMASINA II	Fanandrana	FY22 (Q3)
32	ATSINANANA	BRICKAVILLE	Mahatsara	FY22 (Q3)
33	ATSINANANA	BRICKAVILLE	Vohitranivona	FY22 (Q3)
34	ATSINANANA	VATOMANDRY	Ampasimadinika	FY22 (Q3)
35	ATSINANANA	VATOMANDRY	Ambodinonoka	FY22 (Q3)
36	ATSINANANA	VATOMANDRY	Sahamatevina	FY22 (Q3)
37	ATSINANANA	VATOMANDRY	Tsivangiana	FY22 (Q3)
38	ATSINANANA	VATOMANDRY	Ifasina III	FY22 (Q3)
39	ATSINANANA	VATOMANDRY	Tsarasambo	FY22 (Q3)
40	ATSINANANA	VATOMANDRY	AMPASIMAZAVA	FY22 (Q4)
41	ATSINANANA	VATOMANDRY	IAMBORANO	FY22 (Q4)
42	ATSINANANA	BRICKAVILLE	FETRAOMBY	FY22 (Q4)
43	ATSINANANA	TOAMASINA II	MANGABE	FY22 (Q4)
44	FITOVINANY	IKONGO	Ambinanitromby	FY21
45	FITOVINANY	MANAKARA ATSIMO	Lokomby	FY21
46	FITOVINANY	VOHIPENO	Mahasoabe	FY21
47	FITOVINANY	MANAKARA ATSIMO	MITANTY	FY22 (Q4)
48	FITOVINANY	MANAKARA ATSIMO	MAHAMAIBE	FY22 (Q4)
49	FITOVINANY	VOHIPENO	ANOLOKA	FY22 (Q4)
50	FITOVINANY	MANAKARA ATSIMO	AMBAHIVE	FY22 (Q4)
51	FITOVINANY	MANAKARA ATSIMO	ANOROMBATO	FY22 (Q4)
52	FITOVINANY	VOHIPENO	VOHITRINDRY	FY22 (Q4)
53	FITOVINANY	MANAKARA ATSIMO	AMPASIMANJEVA	FY22 (Q4)
54	FITOVINANY	MANAKARA ATSIMO	VINANITELO	FY22 (Q4)
55	FITOVINANY	MANAKARA ATSIMO	FENOMBY	FY22 (Q4)
56	HAUTE MATSIATRA	AMBALAVAO	Andrainjato	FY21
57	HAUTE MATSIATRA	VOHIBATO	Ankaromalaza Mifanasoa	FY21
58	HAUTE MATSIATRA	VOHIBATO	Maneva	FY22 (Q1)
59	HAUTE MATSIATRA	AMBALAVAO	Kirano	FY22 (Q1)
60	HAUTE MATSIATRA	LALANGINA	Vinaninoro Ouest	FY22 (Q1)
61	HAUTE MATSIATRA	LALANGINA	Ambalamahaso	FY22 (Q2)
62	HAUTE MATSIATRA	LALANGINA	Andrainjato est	FY22 (Q3)
63	HAUTE MATSIATRA	AMBALAVAO	Manamisoa	FY22 (Q3)

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	REGION	District	Commune	Certification Year
64	HAUTE MATSIATRA	VOHIBATO	Vinanitelo	FY22 (Q3)
65	VAKINANKARATRA	ANTANIFOTSY	Antsahalava	FY22 (Q2)
66	VAKINANKARATRA	ANTANIFOTSY	Soamanandrarinny	FY22 (Q3)
67	VAKINANKARATRA	BETAFO	Andranomafana	FY22 (Q3)
68	VAKINANKARATRA	BETAFO	Manohisoa	FY22 (Q3)
69	VAKINANKARATRA	BETAFO	Anosiarivo-manapa	FY22 (Q3)
70	VAKINANKARATRA	BETAFO	Mandritsara	FY22 (Q3)
71	VAKINANKARATRA	BETAFO	Soavina	FY22 (Q3)
72	VAKINANKARATRA	ANTSIRABE_II	Ambohimiarivo	FY22 (Q3)
73	VAKINANKARATRA	BETAFO	AMBOHIMANAMBOLA	FY22 (Q4)
74	VAKINANKARATRA	BETAFO	ANTSOSO	FY22 (Q4)
75	VATOVAVY	IFANADIANA	Kelilalina	FY22 (Q2)
76	VATOVAVY	MANANJARY	NAMORONA	FY22 (Q4)
77	VATOVAVY	MANANJARY	ANDONABE	FY22 (Q4)

## ANNEX 60. HOW TO ACHIEVE AND MAINTAIN ODF STATUS

### SEVEN TIPS FROM THE RANO WASH PROJECT

#### Introduction

The Ministry of Water, Sanitation, and Hygiene has been implementing the «Madagasikara Madio Program» since October 2019, which aims to achieve Open Defecation Free (ODF) status throughout Madagascar. By the end of 2023, the Ministry has set a target for 90% of Malagasy that no longer defecate in the open and practice hand washing with soap, and 55% have access to basic sanitation services. To contribute to these goals, RANO WASH implemented several sanitation promotion activities and has enabled **316,206 people** to have access to improved non-shared toilets and **5,138 communities** and **57 Communes** to achieve ODF status.

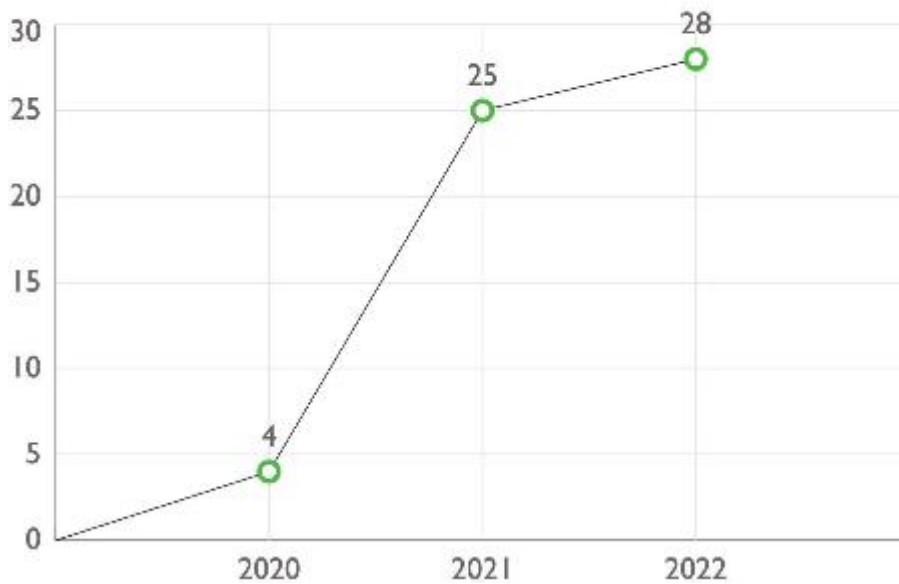
The achievement of this result has evolved over the last three years, as shown in the following infographic:

**RANO WASH** or «Rural Access to New Opportunities of Water-Sanitation and Hygiene», is a USAID-funded project implemented by a Consortium led by CARE, with CRS, WaterAid, BushProof, and Sandandrano.

It is a six-year project (June 2017 - June 2023) and its mission is to increase equitable and sustainable access to water, sanitation, and hygiene services for human health, nutrition, and environmental conservation in 250 rural communes in 7 high priority regions:

Alaotra Mangoro, Amoron'i Mania, Atsinanana, Haute Matsiatra Vakinankaratra, Vatovavy and Fitovinany.

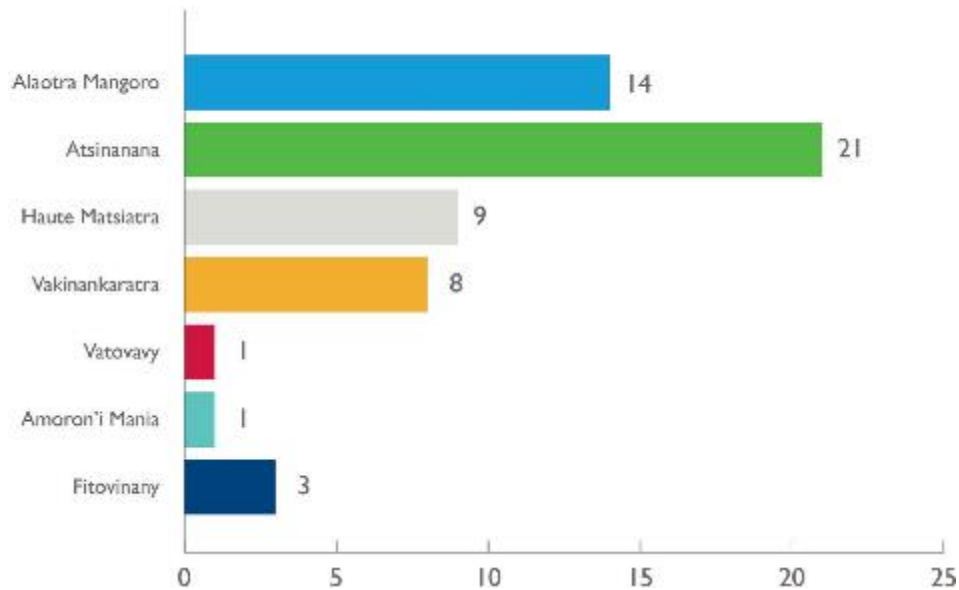
**ODF Communes year obtention**



Situations vary by region; some regions may have had better results than others. The approaches implemented and tested are also different from one region to another, but this has allowed for a better understanding of what works and what does not. The following infographic shows the results of the ODF Communes by region.

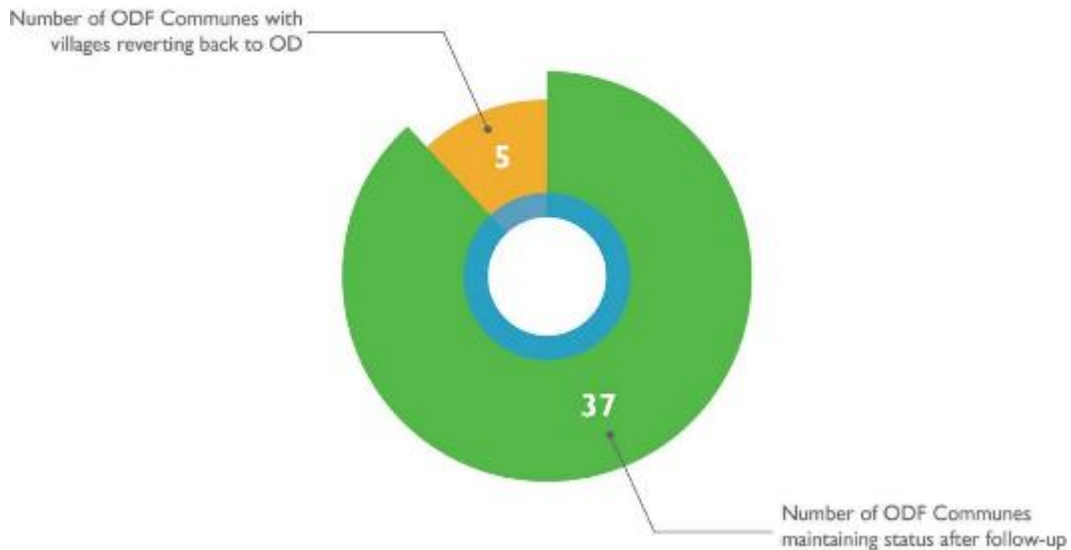


### Distribution of ODF Communes by Region



Maintenance of ODF status was also examined. The ODF Communes obtained under RANO WASH support are relatively new; the majority are less than two years old. Nevertheless, the majority have also managed to maintain their status to date, as shown in the graph below. Maintenance of ODF status remains a work in progress, but what the project has managed to do so far is worth documenting and reviewing.

### ODF Communes maintenance situation



## Lessons learned from RANO WASH intervention in sanitation and ODF Commune promotion.

The achievement of 57 ODF communes led the project team to conduct a series of internal learning sessions through sharing and exchange workshops, document reviews of practices and success stories, and interviews with various actors to identify key elements that facilitate the acquisition of ODF status and its sustainability. From these key elements, the team drew tips for actors wishing to actively contribute to creating an environment that respects ODF criteria in rural communes. This document is intended for Mayors of rural communes, local and regional public actors, and non-governmental partners, such as NGOs and economic operators.

It should be noted that the rural communes in which the tips were drawn from include approximately 3 to 19 fokontany. This means that the tips could be applied in most of the rural communes in Madagascar.

### ODF criteria per the National ODF Verification and Certification

Protocol:

- **(Criterion 1: Open Defecation Areas)** All open defecation areas are cleaned and transformed, and no new OD areas are observed
- **(Criterion 2: Toilet Use)** All households and community members effectively use family or shared toilets<sup>12</sup>, and families properly manage children's excreta.
- **(Criterion 3: Toilet Quality)** All toilets (family, household) and institutional toilets (schools, health centers, public buildings, etc.) - are clean - do not allow contamination and recontamination («Flyproof» toilets: do not allow flies to come and go), - covered pits, - floor/slab without holes that do not allow flies to pass, - the absence of soiled papers/objects in and around the toilets and presence of a waste paper bin with a lid), - effective use of ashes in the pit
- **(Criterion 4: Handwashing Facility)** Presence a handwashing station near the toilet with available soap, water, and ash.

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<sup>12</sup> In villages where significant land problems prevent households from building a toilet, the village must request the mayor's agreement to waive this rule. In this case, the mayor must sign the Fokontany's minutes with the monitoring committee indicating the land problems. (See ODF Verification and Certification Protocol p.7)

## SEVEN TIPS PROPOSED BY RANO WASH

### Tip #1: Think big...but not too big! Encourage all the communes of a district or a region to fight against open defecation!

Addressed to: DREAH - District - non-governmental partners NGOs - project - economic operators

#### DOs

- Ensure quality of institutional triggering<sup>2</sup> that leads to a realistic action plan which reconciles the needs of the population with ODF objectives and engages everyone
- Take into consideration traditional leaders and organizations
- Ensure that facilitation is adapted to the educational level of communal authorities and actors to accelerate their decision-making and thus overcome taboos
- Encourage and maintain the sense of ownership of the Commune in the fight against open defecation and support its leadership to involve all heads of institutions without distinction to become ODF institutions.
- Diversify the approaches to maximize the impacts and address the different determinants that influence open defecation (e.g. Market-based approach<sup>3</sup> - VSLA<sup>4</sup> approach – Grow Up Sticker<sup>5</sup> approach, etc.)
- Promote the commitment of all the stakeholders in charge of the territory (Governor - DREAH - DREN - DRSP etc.) for a MADIO District and Region sustainably.

#### DON'Ts

- Substitute the Commune in its role as the first responsible entity for its locality
- Letting political differences interfere with the implementation of the action plan instead of making the actors responsible for managing these differences
- Use a single approach and not address all the behavioral determinants related to sanitation
- Make Communes believe that their ODF status is a duty they owe to projects/donors or to the government to obtain further support

<sup>1</sup> Approach to improving access to sanitation by considering sanitation as a market of goods and services for which the client makes a monetary contribution

<sup>2</sup> A Village Savings and Loans Association (VSLA) is a group of 15 to 25 people who save together and make small

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loans from these savings. VSLA promotion allows the project to address financial determinant that prevents communities to purchase WASH services and products

The Grow-Up Sticker or Leading Household approach is a reward concept that taps into positive motivators of pride, status, and self-esteem among women and households. Households earn a sticker when they practice and sustain one of the five key behaviors, and they are encouraged to seek to earn all five stickers and complete the Leading Household «flower» displayed outside their home

 **DOs**

- Collaborate with other ministries to acquire and maintain ODF status (e.g., MEN and MSP for ODF institutions, MT for ODF tourist sites, etc.)
- Strengthen the capacity of ATEAH<sup>6</sup> to carry out implementation activities - monitoring and reporting on the evolution of the WASH situation at the commune level

 **DON'Ts**



Technical agent in charge of WASH at communal level

## Tip #2: Take the lead in the fight against open defecation in your community!

Addressed to: Mayors of Communes and all communal actors

### DOs

- Be the lead in the implementation of action plans for the acquisition and maintenance of ODF status
- Combine different approaches to acquire and maintain ODF status (Market-based approach - VSLA approach - GUS approach etc.)
- Organize intra-communal contests (e.g.: Fokontany MADIO, VSLA MADIO)

### DON'Ts

- Letting political conflicts of interest interfere with the process instead of managing them by finding a common agreement in favor of the Commune's development
- Assign too many roles and responsibilities on a few people
- Use a single approach and not address all the behavioral determinants related to sanitation
- (Regarding contests) Promising impossible prizes or providing prizes that are



### Tip #3: Support all institutions to become ODF!

Addressed to: Mayors of Communes and all communal actors

#### DOs

- Involve all heads of institutions without distinction to become ODF institutions (e.g., Health centers - Schools - Gendarmerie – Church, etc.)
- Support the institutions in the implementation and realization of an action plan to facilitate the end of open defecation specific to each

#### DON'Ts

- Limit support to institutions specifically supported by donor-funded projects (e.g., WASH-friendly institutions)



## Tip #4: Encourage sharing and exchanging know-how between municipalities or actors in the same district or region and encourage friendly competition!

Addressed to: DREAH<sup>7</sup> - District - Mayor - Non-governmental partners NGO - Project

### DOs

- Foster an enabling environment for exchange and sharing by organizing or participating in sharing sessions between communal/district/ regional actors, such as workshops or exchange visits.
- Use WASH regional platforms to facilitate sharing at the regional level
- Organize inter-communal - inter-district - or inter-regional competitions on the theme of sanitation
- Depending on local resources available, celebrate your ODF status and invite other communes, especially those that are not yet ODF, to share experiences - demonstrate pride and generate competition among communes

### DON'Ts

- Letting political conflicts of interest undermine the process instead of empowering the supported actors to manage these conflicts
- (Concerning the competitions) Promising inadequate prizes or providing prizes that are incompatible with the efforts required of participants
- Waiting for project funding before starting activities instead of starting with available resources



7Regional direction in charge of Water, Sanitation and Hygiene in Madagascar

## Tip #5: Support Communities to Increase their WASH Budget!

Addressed to: DREAH - District - NGO - Projects



**DOs**

- Support the Commune in tax revenue mobilization and tax awareness
- Support the Commune in the planning and budgeting process and consider WASH in priority activities in these plans (PCDEAH)
- Support the Commune in leadership and ownership of the WASH system strengthening approach<sup>8</sup>



**DON'Ts**

- Cultivate the commune's financial dependence
- on projects





8. The systems approach is a systems analysis methodology. It provides a global vision of the interaction and interdependence of the factors and actors essential for the WASH sector's development.

## Tip #6: Promote the development of the sanitation market by professionalizing small private operators and collaborating with savings groups!

**Addressed to: Non-governmental partners NGOs - project - economic operators**

### DOs

- Support local masons with entrepreneurial skills to improve their businesses
- Encourage/facilitate the integration of local masons into savings groups to enable them to access loans to improve their business
- Support local masons in entrepreneurship for small business management and new technologies.
- Encourage local masons to design attractive but useful latrine products (color, shine, shape, ...)
- Support/engage private operators in the provision of sanitation services by identifying and supporting the most appropriate service model for the context
- Support private operators in producing toilets that meet users' needs and aspirations and are adapted to the localities according to their economic, geological, climatic, and cultural context.
- Support VSLAs in the implementation of WASH funds to improve the quality of their toilets
- Develop solutions for securing the funds of savings groups to encourage local masons and households to join them
- Mobilize savings groups for activities to adopt healthy WASH behaviors

### DON'Ts

- Keep sanitation market actors and stakeholders out of the action plans for maintaining ODF status
- Establish multiple local masons in a single location: rapid market saturation
- Minimize the value of strict internal regulation at the savings group level
- Not address issues related to supply chains and the market systems environment, including financing mechanisms

## Tip #7: Keep up the good work: achieving ODF status is not the end game!

Addressed to: Mayor and community stakeholders

### DOs

- Support and encourage the Communes in the implementation of concerted and jointly decided measures to avoid the practice of open defecation
- Publish the list and the efforts made by the fokontany and Communes ODF to encourage them to maintain their status and influence the neighboring localities
- Develop former open defecation areas into places of public interest if they are public property (sports field - public toilet - reforestation area, etc.), and mobilize owners to use them or restrict access to them if they are private property
- Identify the risk factors for a return to open defecation and the measures to be taken (e.g., Workshop - Town Hall Meeting)
- Strengthen the capacity of ATEAH to carry out hygiene promotion activities (implementation and monitoring) and to mobilize other key stakeholders such as VSLA, civil society organizations...
- Always integrate WASH issues into Commune meetings

### DON'Ts

- Cultivate a sense of fear and limited cooperation.
- Support the creation of laws and measures that generate discrimination and exclusion, especially against women and minorities
- Make Communes believe that their ODF status is a duty they owe to projects/donors or to the government to obtain further support

## Challenges

In communes, a higher number of fokontany and a higher number of people are often major challenges for acquiring ODF status. RANO WASH adopted the following initiatives to address these challenges:

- **Prioritize influential stakeholders.** Conduct an institutional triggering targeting key individuals that were identified before the triggering event. These key persons were, among others, communal and fokontany authorities, heads of institutions, leaders of traditional structures, and influential groups (e.g. Ampanjaka, Tangalamena, etc.). These stakeholders can then mobilize their communities or respective institutions to pilot actions that can end open defecation. These actions can include regular clean-ups, construction of toilets, establishment, and materialization of social rules.
- **Prioritize and sequence.** If the commune has several fokontany, **concentrate the beginning of the actions on one fokontany** so that it can act as a pilot fokontany. Once ODF status is reached, carry out the celebration and invite the chiefs of neighboring fokontany and local authorities, thus encouraging exchanges and triggering a spirit of competition.
- **Plan for support and monitoring.** Carry out an **intensive follow-up** in a commune, involving all commune staff and deploying several project staff (support technicians from the commune in question and other communes), such as the Follow-Up Mandona<sup>9</sup> Faobe example in communes to end open defecation for Alaotra Mangoro and Vakinakaratra - named differently in other regions. Also support WASH and monitoring committees in strengthening local measures (Dina) for households without a toilet.
- **Link efforts with government plans and objectives.** Some regions reinforced the understanding of the Region's performance contract and objectives on sanitation as well as the «Madagascar Madio» thorough explanations provided by the DREAH team during a workshop for Mayors and the training of ATEAH. These objectives have been disaggregated by Commune and are the basis of the action plan of each commune.
- **Contextualize interventions.** RANO WASH has always emphasized the leadership of the commune and the efforts of local actors and organizations (Local Consultation Structure, Civil Society Organization, EAH Committee, heads of institutions, traditional leaders, etc.) in terms of setting up and carrying out action plans as well as monitoring to achieve and maintain ODF status. Before and during the support to the communes, the team made sure to master the different contexts of the region (customs, social structures, etc.) and to gain the trust of the different leaders to promote advocacy actions.

9. Follow-up MANDONA (FUM) is an action-oriented approach to accelerate the end of open defecation after the initial CLTS triggering session. Based on CLTS principles, FUM involves a series of facilitated sessions with the entire FOLLOW-UP MANDONA HANDBOOK 7 community to reinforce behavior change and collectively undertake small, immediate and doable actions to become ODF in the shortest time possible – In Follow-Up Mandona, Guidelines for practitioners, Fonds d'Appui pour l'Assainissement, Global Sanitation Fund

## For future actions

The RANO WASH team collected some additional solutions and reflections for challenges in reaching

ODF communes:

### **How to fight against open defecation in the main towns of communes (chef lieu de commune) with a high population density and quasi-urban characteristics?**

- o Promote the exchange of experiences and inter-communal collaboration at the regional level to help communes that are facing difficulties
- o Support market-based approaches in sanitation

### **How to fight against open defecation of public transport passengers for the Communes along national roads?**

- o Build rest areas with public toilets along the national roads. This requires collaboration with the private sector to offer these services to the passengers
- o Advocate at the national level, including the Ministry of Transport and Meteorology, for a commitment to ODF national roads
- o Collaborate with transport cooperatives and the “Agence de Transport Terrestre” (ATT) to implement an initiative for open defecation-free roads and organize information and sensitization sessions for travelers before each departure.
- o How do we keep open defecation out of open fields?
- o Build improved public toilets near the fields, the communities, and the owners of the fields concerned.

### **How to promote access to quality toilets adapted to the community and its geological, climatic, and financial conditions?**

- o Promote a market-based approach by considering the key factors and actors to be strengthened for sustainable and equitable access to quality toilets in rural communities.
- o Encourage private providers to offer toilet models that correspond to users' needs and the physical context

**What if the WASH budget of communes is insufficient to support institutions to access quality toilets that support ODF maintenance?**

- o Strengthen tax collection
- o Support communes in their search for partners (public and private)

**How can we utilize WASH-friendly school and CSB approaches to maintain ODF status?**

- o Support relevant Ministries to monitor WASH-friendly institutions
- o Encourage communes to take responsibility to ensure the sustainability of WASH services in public institutions

**How to promote access to water in all ODF Communes and maintain hygiene behaviors?**

- o Promote the ODF status of the communes by including it as a criterion to facilitate access to opportunities for their development, such as projects, programs, etc.
- o Organize events such as Water Fairs to share with potential private partners the opportunities that exist in the communes

**Finally, the last action that could be interesting to test:**

Mobilization of the water service providers, such as the Manager - Investor - Builder enterprises promoted by RANO WASH and the Village Savings and Loans Association, in the construction and management of public toilets to contribute to the maintenance of the ODF status of the communes

**« ODF one day, ODF forever. »**

## ANNEX 6I. MBS PROTOTYPING AND TESTING - EXECUTIVE SUMMARY

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## Definitions

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**Ampanjaka** - Loosely translated as 'Clan King' in English, they are community leaders who community members seek the guidance of, before making decisions. If they are involved in 'Kabone Mandamina', and buy a branded product, their decision will influence that of the community

**Chef Fokontany** - The chief or leader of the village.

**Community-led total sanitation (CLTS)** - A rural behaviour change approach for ending open defecation through community participation. It concentrates on the whole community and the collective benefit rather than on individual behaviors.

**Diffusion of Innovations**<sup>1</sup>- Theory that seeks to explain how, why, and at what rate new ideas and technology spread. Everett Rogers, a professor of communication studies, popularized the theory in his book 'Diffusion of Innovations'. The categories of adopters are innovators, early adopters, early majority, late majority, and laggards.

**Early Adopter** - Represent opinion leaders. Enjoy leadership roles, and embrace change opportunities. They are already aware of the need to change and so are very comfortable adopting new ideas.

**Early Majority** - Rarely leaders, but do adopt new ideas before the average person. Typically need to see evidence that the innovation works before they are willing to adopt it. Strategies to appeal to this population include success stories and evidence of the innovation's effectiveness.

**Go-to-Market (GTM)** - step-by-step plan created to successfully launch a product to market.

**Hotely** - small Malagasy restaurant located on the side of a street or market

**Improved toilet** - A toilet that is designed to hygienically separate excreta from human contact.<sup>2</sup>

**Innovator** - People who want to be the first to try an innovation. Interested in new ideas and more willing to take risks. Very little needs to be done to appeal to this population.

**Late Majority** - Skeptical of change, and will only adopt an innovation after it has been tried by the majority. Strategies to appeal to this population include information on how many other people have tried the innovation and have adopted it successfully.

**Laggard** - Bound by tradition and very conservative. Very skeptical of change and hardest group to bring on board. Strategies to appeal to this population include statistics, fear appeals, and pressure from people in the other adopter groups.

**Local promoters** - community health mobilisers who chosen by the community to do health work, they are volunteers who are passionate about their job, and were happy to see the Kabone Mandamina initiative accelerate their work

**Malagasy Ariary (MGA)** - Currency conversion: 3800 ARI = 1 USD

**MVola** - mobile money platform offered by the Telma mobile service provider

<sup>1</sup> <https://sphweb.bumc.bu.edu/otlt/mph-modules/sb/behavioralchange/theories/behavioralchange/theories4.html>

<sup>2</sup> WHO/UNICEF Joint Monitoring Programme (JMP) definition

## Definitions

**Sanitation Marketing (SanMark)** - The application of the best social and commercial marketing practices to change behavior and scale up the demand and supply for improved sanitation. It draws on research and approaches used in social marketing.

**Village savings and loan associations (VSLAs)**- A form of saving and loan group, in which a group of people save together and take small loans from those savings. The activities of the group run in cycles of one year, after which the accumulated savings and the loan profits are distributed back to members. The purpose of a VSLA is to provide simple savings and loan facilities in a community that does not have easy access to formal financial services. More information can be found here: <https://www.vsla.net/>

**Zanakampielezana** - People from rural villages who have moved to urban centers, translates roughly as “children of xxx town”. They can be sources of new ideas and funding for projects in their home villages. Very influential if they live in a big city and can share “modern” ideas and way of life.

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## Executive summary

Rural Access to New Opportunities for Water, Sanitation, and Hygiene (RANO WASH) is a five-year USAID-funded project to improve WASH services in rural Madagascar. In an effort to stimulate markets for sanitation products and services, the program has collaborated with iDE to understand the current sanitation situation and challenges, and develop a market-based strategy to address challenges in this space in a sustainable way.

Following the recommendations that iDE provided at the conclusion of the 2021 discovery research, the primary objectives of this project were:

1. to use rapid prototyping techniques to design and develop a flagship aspirational product for the coastal Aspirational Travelers, and
2. to test marketing triggers, messages, and channels for the aspirational traveler.

Secondarily, iDE tested the idea for strengthening and expanding existing sanitation entrepreneur networks and ways to incentivize hardware stores to partner more formally with masons, and also held exploratory conversations with mobile money providers. These secondary objectives were considered more 'light touch' than the primary objectives, and will be more of the focus of Testing Phases 2 and 3.

This phase of work was conducted over the course of two rounds of prototype testing across eight different RANO WASH project areas in Atsinanana, Vatovavy and Fitovinany. The second round of testing took place in a single commune (Lokomby) to allow the project team the ability to construct multiple full-scale latrine component prototypes to test in real-time with potential customers.

Testing conclusions are as follows:

**iDE**

### Product Conclusions

**Shelter** - Customers prefer a raised square cinder block shelter. At the conclusion of the second testing, and factoring in willingness to pay, customers and masons alike preferred the raised square cinder block shelter because of its spaciousness, ease of construction, aesthetic appeal, and durability.

**Pit** - Customers preferred a raised cinder block pit, regardless of shape, however it will likely be easier from a construction perspective to build a square pit so it lines up with the preferred square shelter.

**Slab** - Aspirational traveler customers prefer a tile slab because it demonstrates status and modernity in addition to having a, clean look, and its ease of cleaning.

**Pan** - When shown all of the options and their respective prices, customers were most interested in purchasing the ceramic seat, citing its aesthetic appeal, durability, clean appearance, and that it is well-known to be free of smells. Customers also stated that the clean appearance would in turn push them to want to keep it clean and presentable for others.

**Tiered options and choices** - One of the most significant insights to arise from testing the prototypes is that customers expressed how much they appreciate the transparency of seeing product options and prices both in a catalogue and in-person, and also how much they enjoy having the ability to choose a product or a combination of products that is the best fit for them. There is a significant benefit to promoting the 'flagship' product while simultaneously offering as many options as the masons are technically capable of constructing.

*Note: The above preferences by customers as the 'flagship products' were the most expensive. However, the team, acting more as sales agents in a sales pilot for the second round of prototype testing, measured real-world affordability and willingness to pay using a sales sign-up sheet, with real world customers signing up for orders during the exhibition session. There was a total of 66 orders received at the exhibition session, validating willingness to pay in the Aspirational Traveller target segment.*

## Executive summary

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### Demand Conclusions

#### Value Proposition

Testing revealed that, more than just a physical product, Kabone Mandamina offers customers the dignity to improve their livelihoods across several areas of value addition that should form the bedrock of the marketing and promotion strategy: Choice and Transparency, Cleanliness and Ease of cleaning, Relaxation and Privacy, and Durability.

#### Brand Identity

Over the course of the exploratory research and prototype testing, the Home team received overwhelmingly positive feedback about the choice of 'Kabone Mandamina' as the brand. The final logo for the brand was developed and validated in a final round of testing. The design is based on the principles of using clean, simple forms, being easy to remember and identify, and using 1-2 colors at most.

#### Sanitation Entrepreneurs

This testing phase revealed that adjusting several parameters significantly altered customers' perception of masons, and masons' perception of themselves. The first of which was to rebrand the mason as a 'sanitation entrepreneur' (Mpandraharaha Kabone Mandamina in Malagasy). The team tested several ideas for rebranding the role with masons and customers, and ultimately the masons who were interviewed chose this as the option they felt afforded them the most dignity. With increased pride, masons already felt more confident going out and selling more latrines than before.

### Marketing and Promotion Channels

- Begin by leveraging the influential Ampanjaka to encourage others to buy Kabone Mandamina products.
- Select local promoters and community health mobilizers to spread the word, and equip them with Kabone Mandamina promotional material.
- Holding an exhibition day
- Leveraging competitive spirit in the community to encourage additional purchases

#### Customer-brand Interaction

An important component of the business model is to maintain several points of customer-brand interaction so that customers associate Kabone Mandamina with the aspirational products and service offering that the brand represents. These include: (1) Sales Pitch Deck, (2) Mason Uniform, (3) Business Cards, (4) Product Information Sheets, (5) Proof of purchase or certificate.

### Supply Conclusions

#### Human Resources

There are several personas that should be included in the Kabone Mandamina business model in order to effectively deliver the value proposition to customers, including Sanitation Entrepreneurs, Construction workers, Local promoters, Product construction trainer, and Sales Trainer and Manager.

## Executive summary

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### Sales Channels

Testing revealed that Kabone Mandamina should be sold using three primary channels: Door-to-door sales, a permanent market display, and periodic exhibition promotion events.

### Partnerships

Several partnerships are crucial for the success of the business model, particularly when customers ask for sanitation entrepreneurs to take care of the materials ordering and delivery in addition to construction: Hardware stores in Manakara, Transportation/logistics service between Manakara and Lokomby, Local government, Ampanjaka, and NGOs, particularly during startup and the early life of the business model.

### Finance Conclusions

#### Business Costs

There are two business cost categories that the research team considered when developing the business model for sanitation entrepreneurs: Direct Costs - already built into the current product prices displayed, and Indirect Costs - currently **\*\*\*not\*\*\*** built into product price. Eventually, all indirect costs will need to be factored into the sanitation entrepreneur's operating costs and the price of their products to make the model more sustainable. That can be done in a phased approach as sanitation entrepreneurs build their order backlog and have higher sales volumes.

### Loan and credit options for customers:

The team uncovered that the two primary opportunities for financing (either for a customer to purchase a latrine or for a mason to get support for their business) are through involvement in VSLA, or with an ACEP real estate loan.

### Payment plan options:

A number of different payment plan options for customers were explored, with the most popular being an up-front payment of 30-50% of the total cost, and then paying the rest at the end of construction. Masons also commented that they can work with customers to set up a deferred payment plan after the latrine is built, but then as a result of the delay, they increase the price of their services by a certain percentage.

### Exploring mobile money

The home team explored mobile money as a way for customers to pay masons and for setting up affordable payment plans. The findings yielded that there is definitely strong potential, as having a mobile money account allows a user to deposit money, transfer to another account, buy credit, and lend money.

### Pilot Rollout

The next phase of work will focus on building a sales team and targeting early adopters. Major activities should include: Roll out the flagship Kabone Mandamina and test tiered offerings, Recruit sales agents, train masons and sales agents, and start advertising, Pilot the entrepreneur network and hardware store collaboration, and Test financial mechanisms and flexible plans for early majority.

## ANNEX 62. CHARTER FOR COLLABORATION AND COORDINATION WITHIN SAVING GROUPS PROMOTERS



# CHARTER FOR COLLABORATION AND COORDINATION WITHIN THE SAVINGS GROUP PROMOTERS

## VISION

The Malagasy population throughout the country has access to secure, sustainable, and efficient savings groups, allowing them to improve their life quality.

## PREAMBLE

Each promoter or would-be promoter must become familiar with this charter before designing and proposing savings group promotion activities to a donor or financial partner. The standards it sets will help ensure a smooth intervention during the implementation on the ground. They will contribute to developing a secure, favorable, and fulfilling environment, on the one hand for the promoters, but also and above all for the savings group.

This project design will need to address a few points more thoroughly. It is important that:

- 1) projects be designed to coordinate with all existing savings group interventions and to respect the overall interests of the communities served.
- 2) savings groups project documents consider the risks (overlap and distortion, resources) associated with coordinating activities between proponents and consider options for revitalizing existing groups and the continuity of existing savings groups' activities and approaches.
- 3) The interventions contribute to the maturation of the savings groups ecosystem and respect the phases of savings groups development:
  - o Bringing complementary themes or skills to the groups and members
  - o The provision of answers or solutions adapted to the growing and maturing needs of groups and members (structuring, organization, advocacy, networking, etc.)
- 4) Avoid, in the design of activities associated with promoting savings groups, the overkill of ephemeral offers to savings groups (offers that cannot be replicated after the promoter has left) solely with a view to the number of groups created.
- 5) That the indicators be defined in such a way as to encourage the enhancement of the existing situation through the complementarity of approaches and contributions from all.

## MOTTO N°1: QUALITY INTERVENTION

Regardless of the source of expertise and background documentation available, each promoter undertakes to respect the GE methodology and to acquire the conditions required to ensure the quality of its interventions:

- 1) Financial resources (training, monitoring, SAVIX reporting).
- 2) Up-to-date technical expertise or proven willingness to update expertise through the support of the cluster or RPGEM.
- 3) Time resources.
- 4) Human resources according to the requirements of the management ratios.
- 5) The appropriate materials and equipment.
- 6) Up-to-date resource materials (training tools and materials, monitoring and supervision, reporting)
- 7) Knowledge of the legal frameworks for intervention.

## MOTTO N°2: OPTIMIZATION OF RESOURCES AND COMPLEMENTARITY OF ACTIONS

In the event of overlapping areas: each promoter undertakes to define guidelines that promote optimizing resources (human, financial, and time) by choosing options for sharing areas and complementing interventions. These decisions must take into consideration all the other aspects of this charter.

## MOTTO N°3: COMMUNICATION, CONTINUOUS DATA, AND INFORMATION SHARING

1. Each promoter undertakes to join forces with other promoters or to provide the necessary resources to adhere to a common communication system and database, and par excellence, the SAVIX, to facilitate exchanges and sharing sessions and to assist in decision-making in matters of coordination and collaboration.
2. Each proponent commits to ensuring good communication and exchange on progress, initiatives taken, and challenges encountered and to consult on measures or initiatives to be taken according to the context.

## MOTTO N°4: RESPECT FOR THE EXISTING.

1. Before any intervention, each promoter undertakes to inform itself about existing models and methodologies and will intervene in such a way as to avoid distorting the EGs and the experiences of local trainers. It is important to ensure that the practices already assimilated are respected insofar as they comply with the standard norms and qualities of EGs as agreed (both for trainers and for EGs).
2. Each promoter is committed to building on what the local communities and trainers have mastered, strengthening them where necessary, and encouraging consolidation and scaling up.
3. It is important to ensure that previous proponents are recognized from the standpoint of visibility and reporting. For example, when a promoter commits to a site that another promoter has already invested in, the promoter who created the groups must be mentioned in the reports.

## MOTTO N°5: CREATION OF A FAVOURABLE AND SECURE ECOSYSTEM THAT PROGRESSES WITH THE DEGREE OF MATURITY AND NEEDS OF THE GE

1. Each proponent is committed to conducting interventions that contribute to the maturation of the EG ecosystem and that respect the developmental stages of EGs.
2. It is important that each promoter is aware of and applies the various texts: decree/code of ethics/local coordination standards/individual code of conduct for trainers.
3. It is important that local authorities at each level: fokontany/commune/district, be involved in the processes of GE promotion (supervision, monitoring, progress, results, problems encountered, protection, etc.)

## MOTTO N°6: COHERENCE OF THE OVERALL INTERVENTIONS CONCERNING THE COMMUNITIES SERVED

1. Whatever the nature of its interventions, the model promoted, the donor that finances it, etc., each promoter undertakes to maintain continuous coordination with the other promoters on-site to ensure the overall coherence of the interventions and the stakeholders about the communities.
2. In the event of a distorted approach, each promoter undertakes to define together guidelines that promote :
  - a. Complementarity of the contributions of the various participants to avoid competition.
  - b. Consistency of support and endorsement received by the community so that communities are not forced to choose between the two proponents.
  - c. Sustainability of the achievements generated by the two or more stakeholders :
    - a. Avoiding the destruction of each other's achievements.
    - b. Avoiding community dependency has benefits that cannot be replicated without the promoters.
  - d. The integrity and freedom of the communities served.
  - e. A win-win strategy for both promoters and the communities they serve.
3. Each proponent is committed to maintaining a tangible perception of effective and active collaboration with the communities it serves and ensuring that conflicts and open competition are avoided.

### ANNEXED TO THIS CHARTER :

- 1) A reminder of the technical terms used.
- 2) The list of framework documents in force.
- 3) Description of the types of supportive indicators
- 4) A presentation of a cluster in Savings Group.
- 5) The process of setting up a cluster in a savings group

## Annex I: Glossary of technical terms

<p>Distorsion</p>	<p>We speak of distortion of approach when two approaches are deployed in the same community, in the same area, and when the practices of one approach destroy the achievements of the other: past, present, or expected future achievements.</p>
<p>Time resources</p>	<p>In savings groups practice, time resources are measured at least by the cycle of a group, i.e., 9 to 12 months; excluding project preparation time (recruitment, training, deployment of staff as well as meeting A and meeting B)</p> <p>Any savings group creation intervention that does not consider these parameters is not regulatory.</p>
<p>Quality of intervention</p>	<p>The quality of the interventions requires :</p> <ul style="list-style-type: none"> <li>- Quality of training</li> <li>- Availability of training and monitoring tools and guidance.</li> <li>- Management ratio (1 agent dedicated to the EG for a maximum of 8 groups in 1 year) [an agent dedicated to the EG only deals with EGs but does not assume multiple themes or responsibilities]; if the agent is multi-skilled, the management ratio should decrease</li> <li>- Frequency of follow-up and supervision of groups in the first cycle (weekly for three months, fortnightly for three months, and monthly for the remaining 3 to 5 months. (see code of ethics)</li> </ul>
<p>Quality of training in the promotion of GE</p>	<p>Training for EGs :</p> <p>EG training can consist of 7 to 9 modules but must include the following elements</p> <p>=&gt; A-B-C meeting (local authority, community, people willing to join the groups)</p> <p>=&gt; member self-assessment (meeting B-C) with membership criteria</p> <p>Training modules :</p> <ul style="list-style-type: none"> <li>⇒ Election, criteria, and responsibilities of members and officers</li> <li>⇒ Bylaws: basic principles of financial management, elements of IR depending on members' decisions.</li> </ul>



	<p>⇒ Use of recording tools (notebook, register) to monitor and control financial transactions for all funds available within the EG.</p> <p>Training of trainers/coaches:</p> <p>The training of trainers/supervisors must include all the elements mentioned above in addition to the following:</p> <ul style="list-style-type: none"> <li>– Facilitation techniques and instructional practices.</li> <li>– Strategy, Technique, and tool for monitoring and supervision, including frequency of supervision and three pillars of savings groups: meeting procedures, general operation, and control of finances by members, filling in tools.</li> <li>– A real aim and will of the trainers to tend towards the independence and autonomy of the groups.</li> </ul> <p>If groups are required to pay trainers, the training of trainers must include the following:</p> <ul style="list-style-type: none"> <li>– A part concerning the form and content of the contract between the trainer and the paying group: commitment of the trainer and the group.</li> <li>– A clear payment system in which any financial consideration must be justified by a real added value to the groups (avoid any routine payment, any dependency relationship between the two parties)</li> </ul> <p>The training program must include a system for evaluating the skills and abilities and motivating the trainers before and especially after a practice equivalent to a GE field cycle.</p>
<p>Quality of savings groups</p>	<p>Savings group that masters :</p> <ul style="list-style-type: none"> <li>– <b>Meeting procedures :</b> <ul style="list-style-type: none"> <li>a) separate treatment of existing cases ;</li> <li>b) audit of accounts before and after transactions ;</li> <li>(c) all cash receipts before all cash disbursements for each of the existing funds.</li> </ul> </li> <li>– <b>General operation of the group :</b> <ul style="list-style-type: none"> <li>a) location of members and visibility of any financial transaction by all members present.</li> <li>b) participation and satisfaction of all members in all discussions and decisions.</li> <li>(c) reference to IRs.</li> <li>d) Each member has control over their accounts.</li> <li>e) Each member has control over the group accounts.</li> </ul> </li> <li>– <b>Filling in the management tools :</b></li> </ul>

	<p>Completeness, order, and cleanliness are legible and usable, reflecting the accuracy and reality of the transactions at the time of their completion.</p>
<p>Management tools</p>	<p>Management tools may vary by savings groups model:</p> <ul style="list-style-type: none"> <li>- VSLA / SLA / GVEC: Notebook (savings and loan) and notebook (cash closing funds; use and monitoring of cash other funds)</li> <li>- GEC: Notebook (savings and credit) and notebook (attendance, social, savings and credit monitoring, cash flow monitoring, use of credit fund)</li> <li>- SILC (presence, social and social cash management, savings, credit, cash management of the credit fund, fine, the note of group decisions)</li> <li>- register other funds (health, environment, agriculture, wash) if there are other funds</li> </ul> <p>All models must have an updated statute/rules of procedure for each new cycle, signed and owned by the members.</p> <p>Each group must have complete equipment (trunk, pens and ruler, stamps, inkers, calculator, ruler, a bag of strings for each fund, and containers to receive the money (bowl, sahafa...))</p> <p>Each of the above management tools must allow :</p> <ul style="list-style-type: none"> <li>- Organized management of meetings and financial transactions.</li> <li>- Individual and aggregate account histories for cross-checking and monitoring of financial transactions.</li> </ul>
<p>Denaturation of local groups/trainers.</p>	<p>Group denaturation occurs when a proponent enters a community (or area) that already has a GE model with associated management tools, and the proponent imposes another model with different tools.</p>
<p>Zone Overlay</p>	<p>An overlay is when two promoters come into the same area and work with the same communities, bringing identical offerings or doing the same activities.</p> <p>Superposition of fokontany, communes, districts, ....</p>

Multiple reporting	Multi-reporting of a group occurs when two or more promoters report a group as being created by themselves.
Sustainability of achievements	<p>Sustainability of gains is achieved when with the interventions :</p> <ul style="list-style-type: none"> <li>- The groups continue to save and make credits, renewing their cycles even in the absence of the intervener/promoters.</li> <li>- Local trainers continue to create, train, and mentor savings groups beyond the intervention.</li> <li>- Lack of sponsor-dependent benefits or incentives that will disappear with the sponsor, thus inhibiting replicability from the communities served (local trainer/GE)</li> <li>- Regular reporting of data at least twice a year by the relay agents (FCD) to allow RPGEM to ensure the follow-up on SAVIX</li> </ul>
Group and Member Integrity	<p>A group and its members can have all the necessary information about their development and blooming. The idea is that they should not be bribed by ephemeral benefits that are not reproducible or sustainable.</p> <p>There is also the freedom to exercise choice (membership, participation, investment, use of their funds, ...) and not choices "imposed" or subject to counterparts.</p> <p>Voluntary participation in the development of their locality</p>
Consideration of the saturation threshold	The consideration is that it is no longer possible to create more savings groups within a given community at saturation point. Therefore, interventions should no longer be directed towards this but rather towards enhancement or some consolidation and scaling up.
Overlap versus revitalization versus Enhancement of GE	<p>Overlap: a proponent takes over an EG or trainer already established by another proponent.</p> <p>Revitalization: A group that has already been dissolved or dormant after the departure of a promoter and that the successor takes over by providing the necessary training, coaching, and updates to get it</p>

	<p>up and running again. In this case, the successor should always mention his predecessor.</p> <p>Enhancement: adding value (training, intervention in other dimensions of savings and credit, or other areas [agriculture, wash, health, sector, etc.] to an existing group set up by another promoter. In this case, the successor should always mention his predecessor.</p>
Methodological standards	<p>Have the following resources available and deploy them efficiently and effectively:</p> <ul style="list-style-type: none"> <li>- Documentary resources (operational strategy; training documents; training and management tool, monitoring and supervision quality assessment tool, data flow and management tool, SAVIX par excellence...)</li> <li>- Time resources (at least 12 to 14 months between the start of the group cycles and the end of the project; if local trainers are put in place =&gt; 24 months)</li> <li>- Compliance with the quality, quantity, and frequency of regulatory supervision.</li> <li>- Staffing ratio (ratio between the number of groups to be set up, duration of project, and number of staff deployed)</li> </ul>

## Annex 2: List of existing framework documents :

Law	Loi-n°2017-026-Microfinance
Decree	In progress
Convention	Code of Ethics
Technical document	Program Quality Guideline Document
Convention	Charter for coordination and collaboration among savings group promoters
Technical document	The different guides of the VSLA.net field agent

## Appendix 3: Description of Supportive Indicators

It is proposed that the indicators be open-ended and encourage complementarity and coordination. In the same vein, indicators measuring ephemeral and non-permanent support are not recommended either.

This table provides a non-exhaustive list of indicators in two categories (good examples and counter-examples) but one that shows the spirit to be adopted when formulating projects, defining the activities to be undertaken, and formulating the measurement indicators.

Examples	Counterexamples
<ul style="list-style-type: none"> <li>★ Number of EGs/members sensitized on a given theme (regardless of sponsor)</li> <li>★ Number of EGs who participated in an event.</li> <li>★ The numberer of savings groups mobilized/forms (regardless of the promoter).</li> <li>★ The number of groups created (In an area where there is no GE intervention yet / under the imperative condition of coordination before the design of the project and taking into account the development prospects of the existing ones).</li> </ul>	<ul style="list-style-type: none"> <li>✗ A numberer of groups created in their context of zone saturation).</li> <li>✗ The numberer of kits dotes.</li> <li>✗ Percentage of disbursements for grants to groups to establish and operate as CGs (training on CG management, savings, or credit grants)</li> </ul>

## Appendix 4: A presentation of a cluster in a savings group.

### 1/ Definition of the "Savings Groups" Cluster

- A group of promoters operating in a given geographical area.
- Proponents all with interests around EGs
  - Regional or local sponsor
  - Branch or regional office of a central sponsor.
  - Local trainer, association, or network of local trainers (VA, PSP, Tia VOAMAMI, .... )
  - Union or platform or federation of EGs
- Informal and contextual but functional structure, set up from a clear need for coordination, communication, and coordination around the interventions in promoting EGs.

### 2/ Form and mode of participation in the "Savings Groups" Cluster

Participation in a savings group cluster can take many forms:

- A promoter, through its regional offices, can participate in several clusters depending on its intervention area.
- A promoter can participate in a cluster without being a member of RPGEM. But the cluster must inform RPGEM and invite the promoter to join.
- The RPGEM cluster relationship will not be hierarchical but functional.

- A given region/area may not choose to set up a cluster if the need is not felt.
- The establishment of clusters contributes to valorizing assets between promoters regardless of size or scope. This collaboration can be transcribed into SAVIX if the strongest promoter can bear the cost of SAVIX for the total number of EGs in the area/region, as long as the promoter also adds value to the EGs of the partners in question.

### 3/ Mission of the "Savings Groups" Cluster

1/ foster coordination and collaboration in the promotion of GE

2/ Encourage participants to join RPGEM

3/ To be the spokesperson for RPGEM on the messages it wishes to convey to promoters.

### 4/ Structure and functioning of the "Savings Groups" Cluster

1. The "Savings Groups" Cluster will be autonomous regarding coordination, mode of operation, and activities.
2. The "Savings Groups" Cluster will operate based on and for the promotion and respect of the norms and regulations governing GE's promotion.
3. The "Savings Groups" Cluster will designate a fixed focal point and may decide on a rotating lead according to the participants' periodicity.
4. The leadership team will consist of at least two members:
  - a. The chair who will ensure the smooth running of the meetings.
  - b. The secretary will ensure the drafting of the minutes and the sharing with RPGEM of the minutes and annex documents used during the coordination meeting.
  - c. The position of Chair and Secretary will be held by two different organizations or sponsors
5. The focal point will be the interlocutor and spokesperson of RPGEM towards the cluster participants. They will also discuss the relationship between the cluster and RPGEM. The focal point will be the interlocutor of the ES of RPGEM or the members of the Board. The focal point will necessarily be a member of RPGEM.
6. The Cluster can decide on other activities but will not be obliged to have heavy organizations and structures that hinder its functionality. Thus, it will not be encouraged to have a permanent fund but to share the burden according to the event's needs.

### 5/ Relationship between the "Savings Groups" Cluster and RPGEM

1. RPGEM will support the clusters in coordinating and promoting existing texts.
2. RPGEM will support the cluster participants according to the requests and organizations (to be determined according to the agreements).
3. The Cluster will provide relevant information regarding the promoters and the evolution of the general environment around the EGs in the area through the minutes of the periodic meetings and the sharing of related documents.
4. The Cluster can assist RPGEM in implementing RPGEM activities in the area. (Training, events).
5. The Cluster can help/guide a promoter to join RPGEM; it can endorse a promoter about the requirements.

## 6/ RPGEM's modus operandi in favor of the "Savings Groups" Cluster

RPGEM could organize periodic meetings and training for cluster participants and take advantage of this to collect information from promoters. This practice could also strengthen the membership.

## 7/ The roles of the "Savings Groups" Cluster

The roles of the "Savings Groups" cluster are as follows:

1. Coordinate the interventions of the promoters and its members in the field.
2. Promotion and promotion of the regulatory texts in force (decree, code of ethics, methodology, local coordination standards [after validation], ...
3. Exchange and sharing information: Promoters - RPGEM, via PVs and document sharing, face-to-face or virtual meetings.
4. Facilitation of the connection of RPGEM with local promoters.
5. Identification and communication of the appearance of a new promoter.
6. Provision of the necessary information/data to all regional promoters (list of relay agents, groups, etc.).
7. Facilitation of communication between EGs and deconcentrated and decentralized state institutions.

## 8/ What the "Savings Groups" Cluster is not :

- The "Savings Groups" Cluster is not a regional RPGEM
- The Savings Group Cluster is not an SG promoter and is, therefore, not a member of RPGEM.  
=> On the other hand, cluster participants may or may not be members of RPGEM.
- The "Savings Groups" Cluster cannot represent or speak on behalf of RPGEM unless specifically mandated by the Board.
- The Savings Groups Cluster cannot initiate any change/improvement or relief in the methodology and the regulatory texts.
- The issue of regional EMPR will be discussed at the appropriate time (depending on the needs and maturation of the EG ecosystem)

## Annex 5: Setting up the "Savings Group Cluster."

### 1/ Triggering factor:

Need for coordination / communication / appearance of a new promoter / ...

=> Contact the concerned persons: Telephone number, e-mail, etc....

=> Visit the office of the identified promoters

RPGEM will invite => Promoters to virtual first-contact meetings.

### 2/ Virtual meetings of first contact by RPGEM:

Part 1:

- Presentation of RPGEM and interest in joining (training, coordination, sharing, advocacy, tutelage...)
- Regulatory texts (decree, collaboration standards, code of ethics, etc.)

Part 2:

- Presentation of the "GE Clusters" (interest, principles, objectives, .... )
- Regional or local collaboration and coordination standards.

### 3/ Demonstration by promoters of their willingness to create a GE cluster.

- The promoters express to RPGEM their willingness to create a GE cluster, to join or not to join the GE cluster if it is a new promoter.
- RPGEM trains promoters on the GE cluster's establishment, role and functioning.

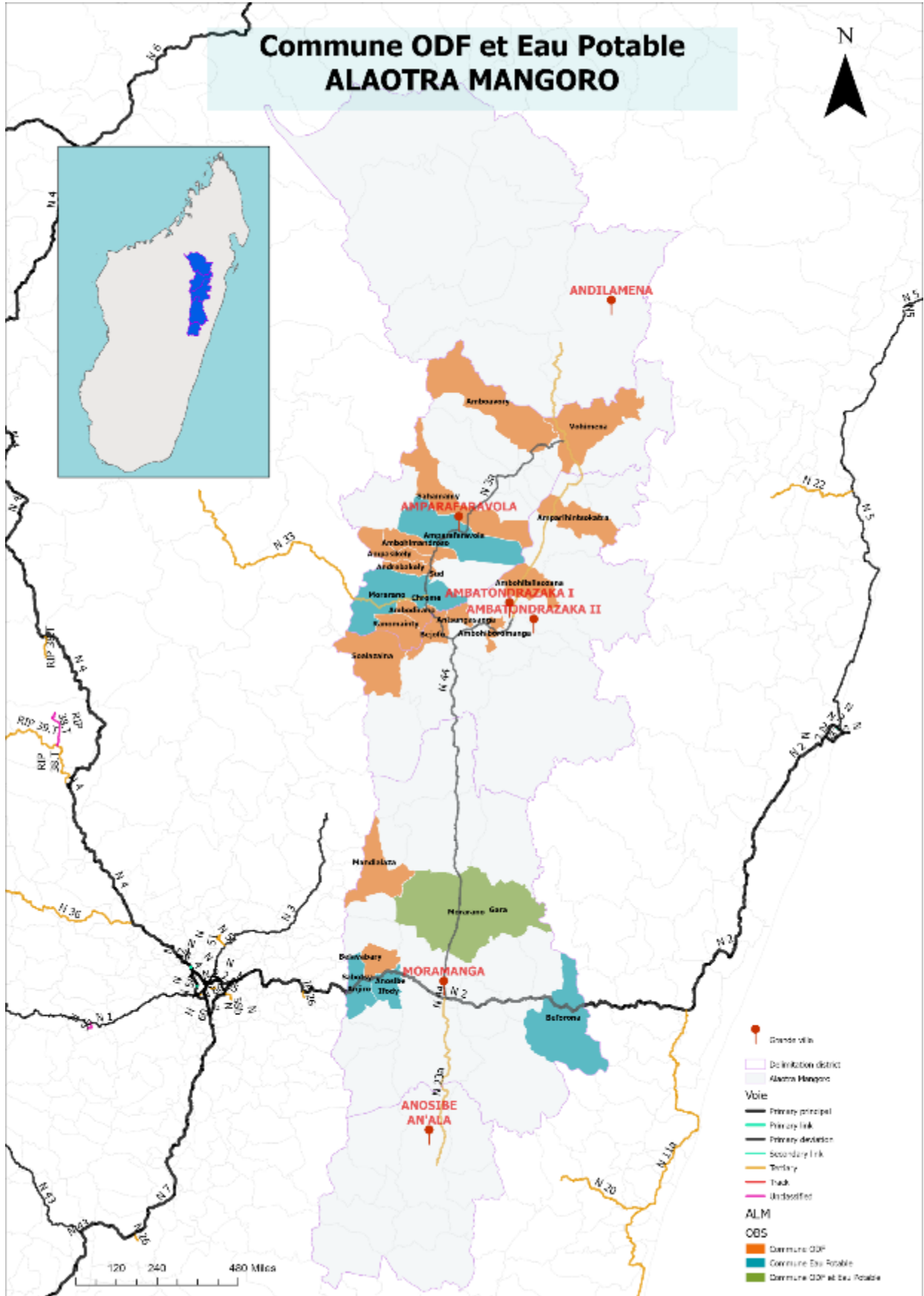
### Four/ Holding of the constituent meeting of the Cluster by the volunteer promoters.

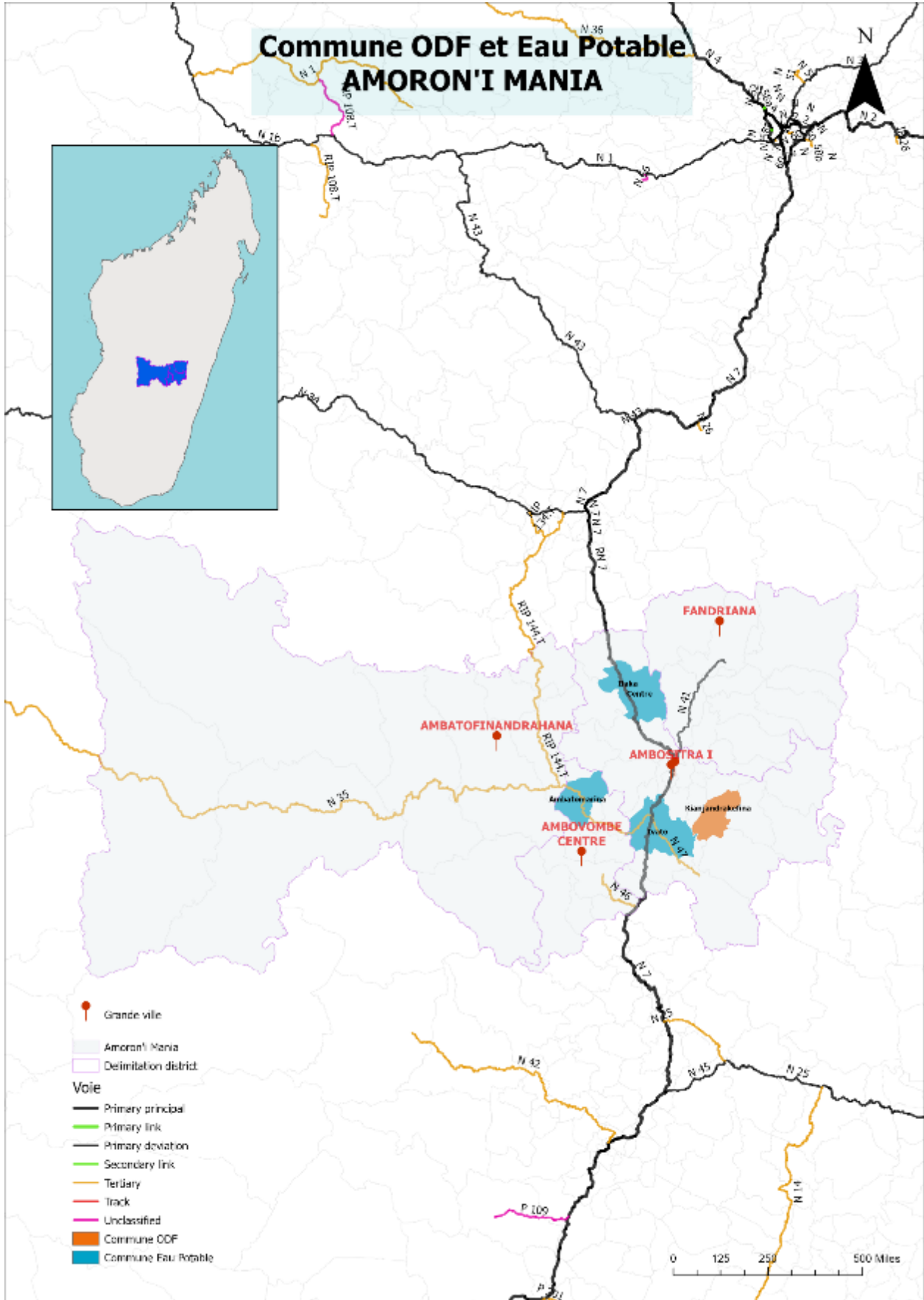
- Definition of their status, according to this guide
- Definition of their modus operandi
- Election of members to various positions
- Designation of the first meeting with potential agendas.

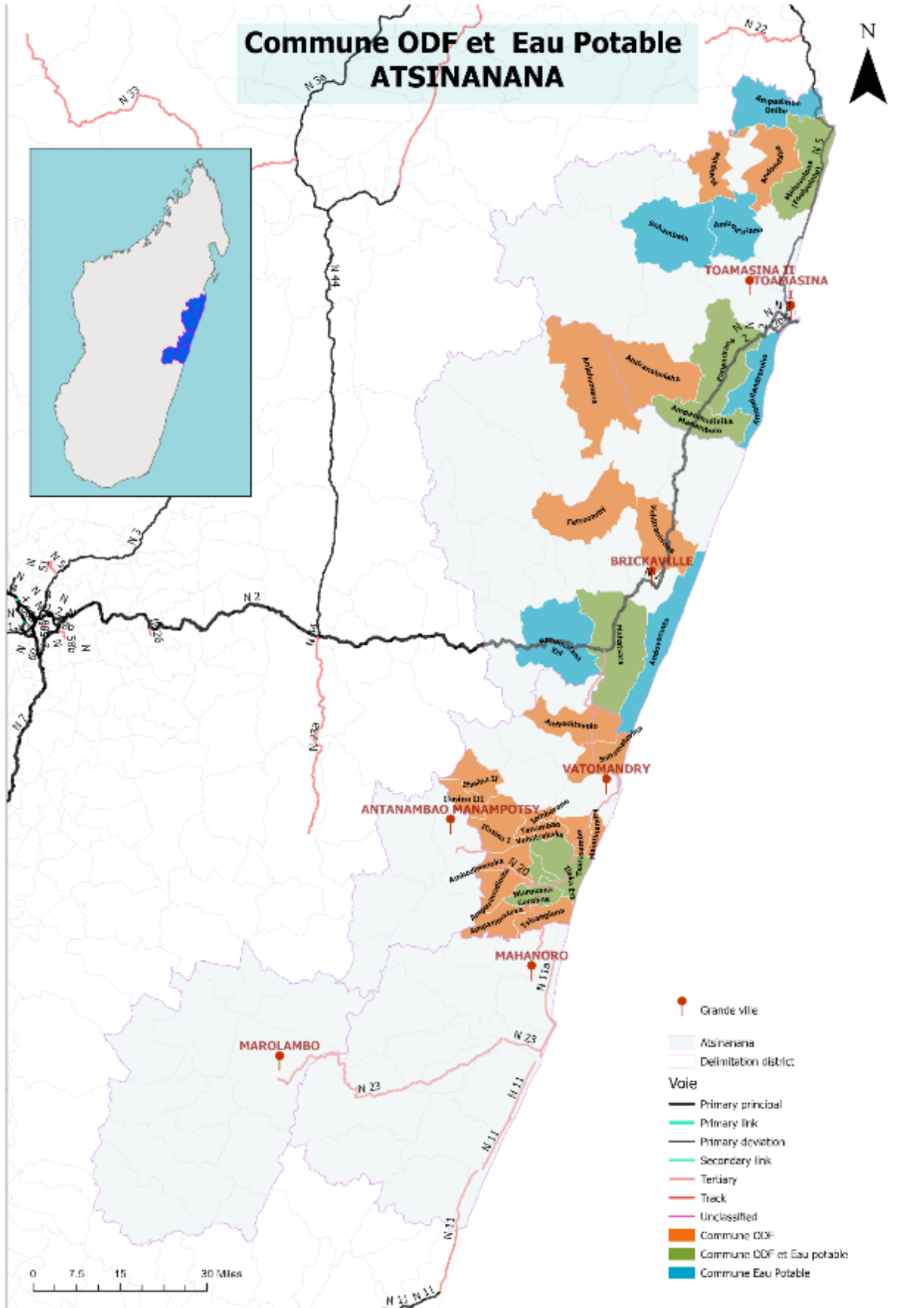
Whether or not to hold an official launch is left to the choice and responsibility of the cluster.

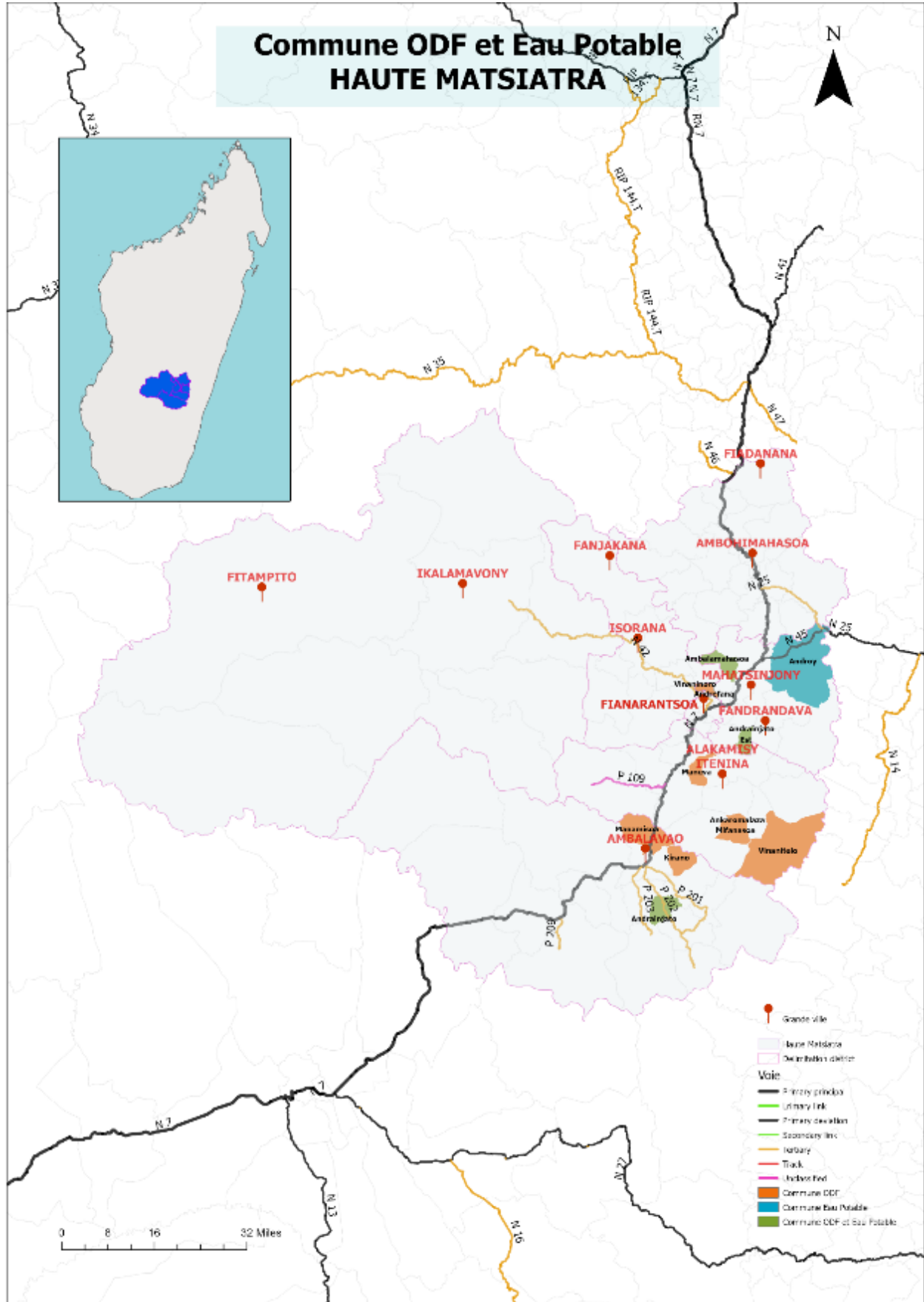


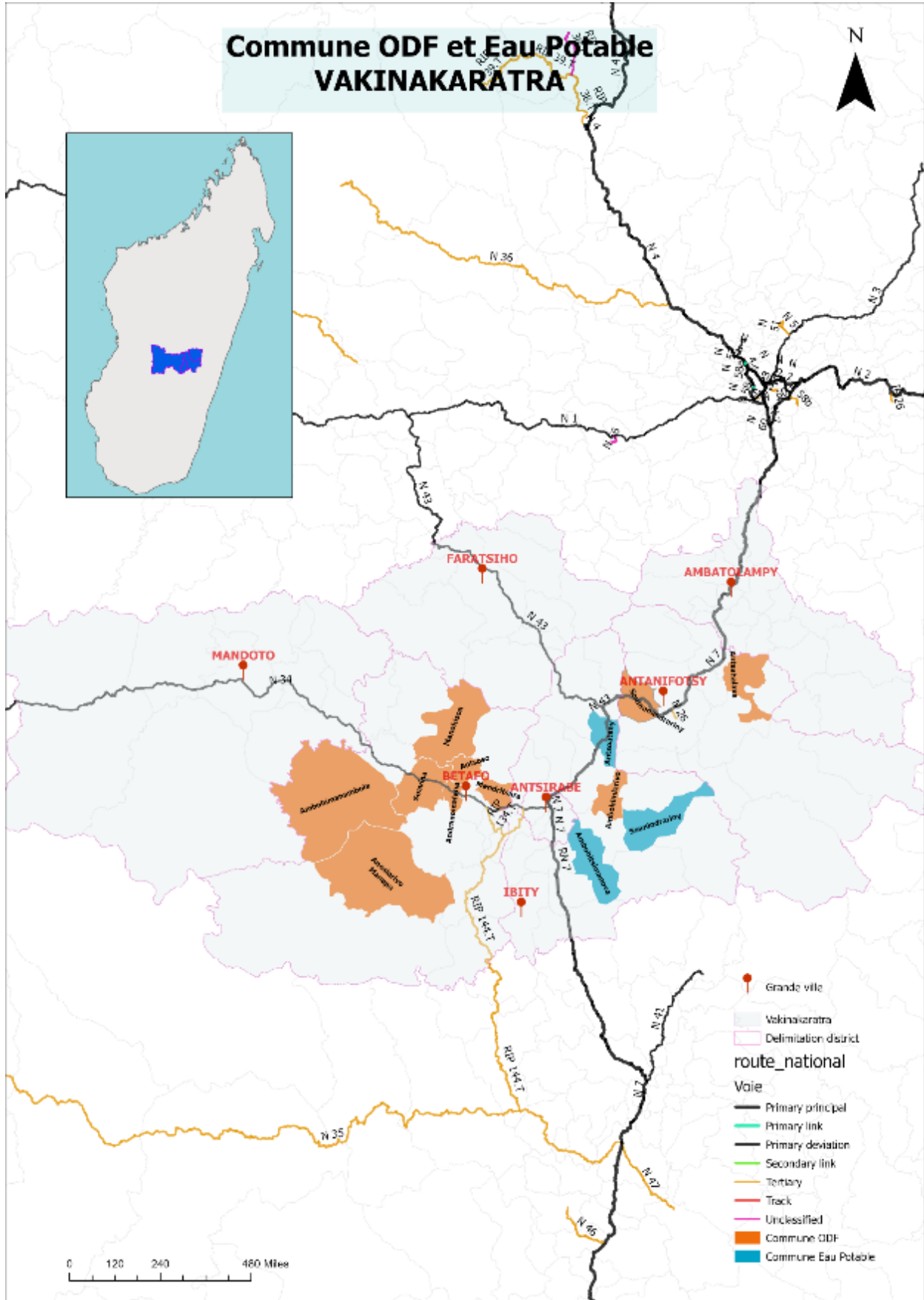
## **ANNEX 63. MAPS OF ODF COMMUNES VS ACCESS TO WATER Q4.22**

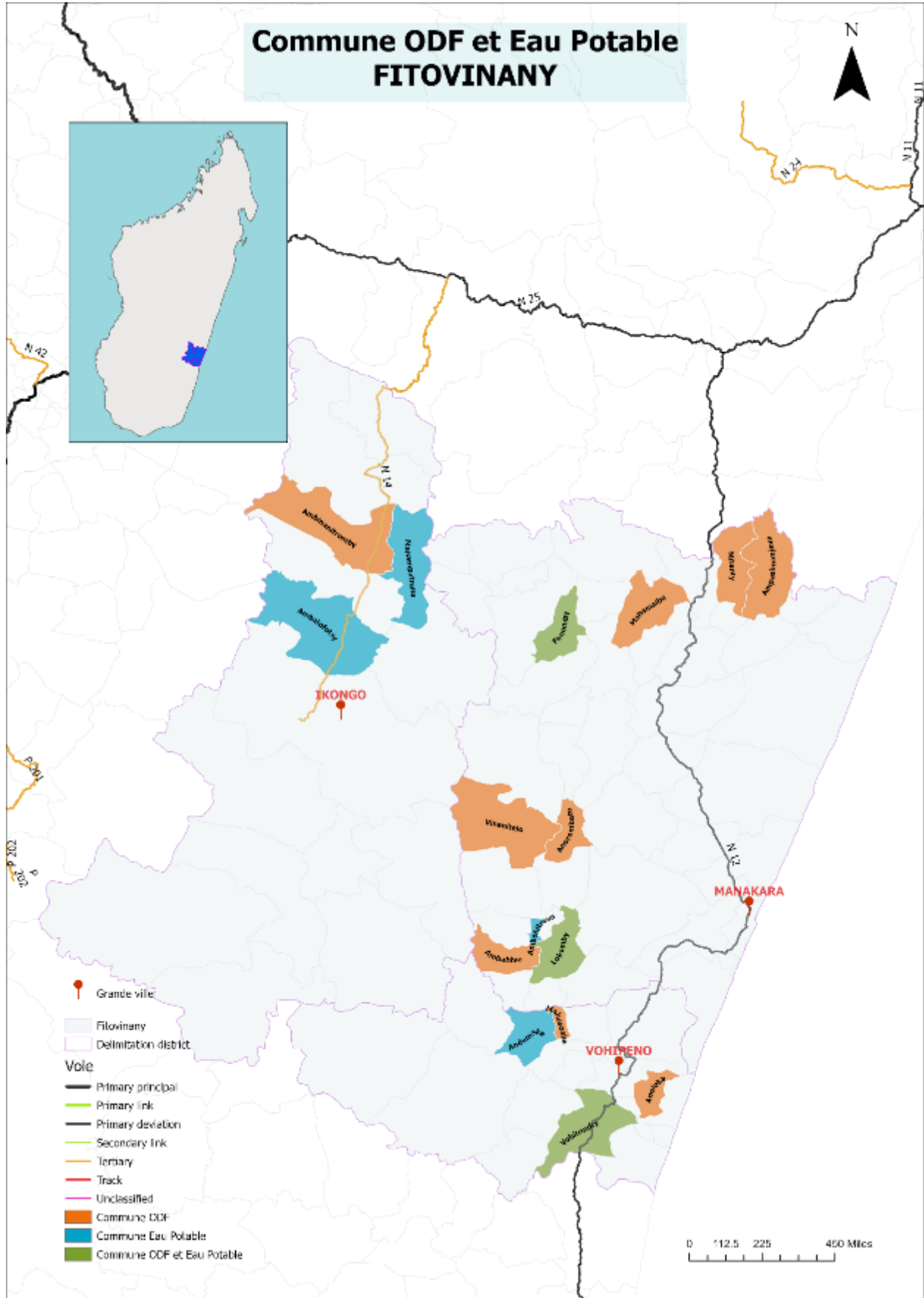


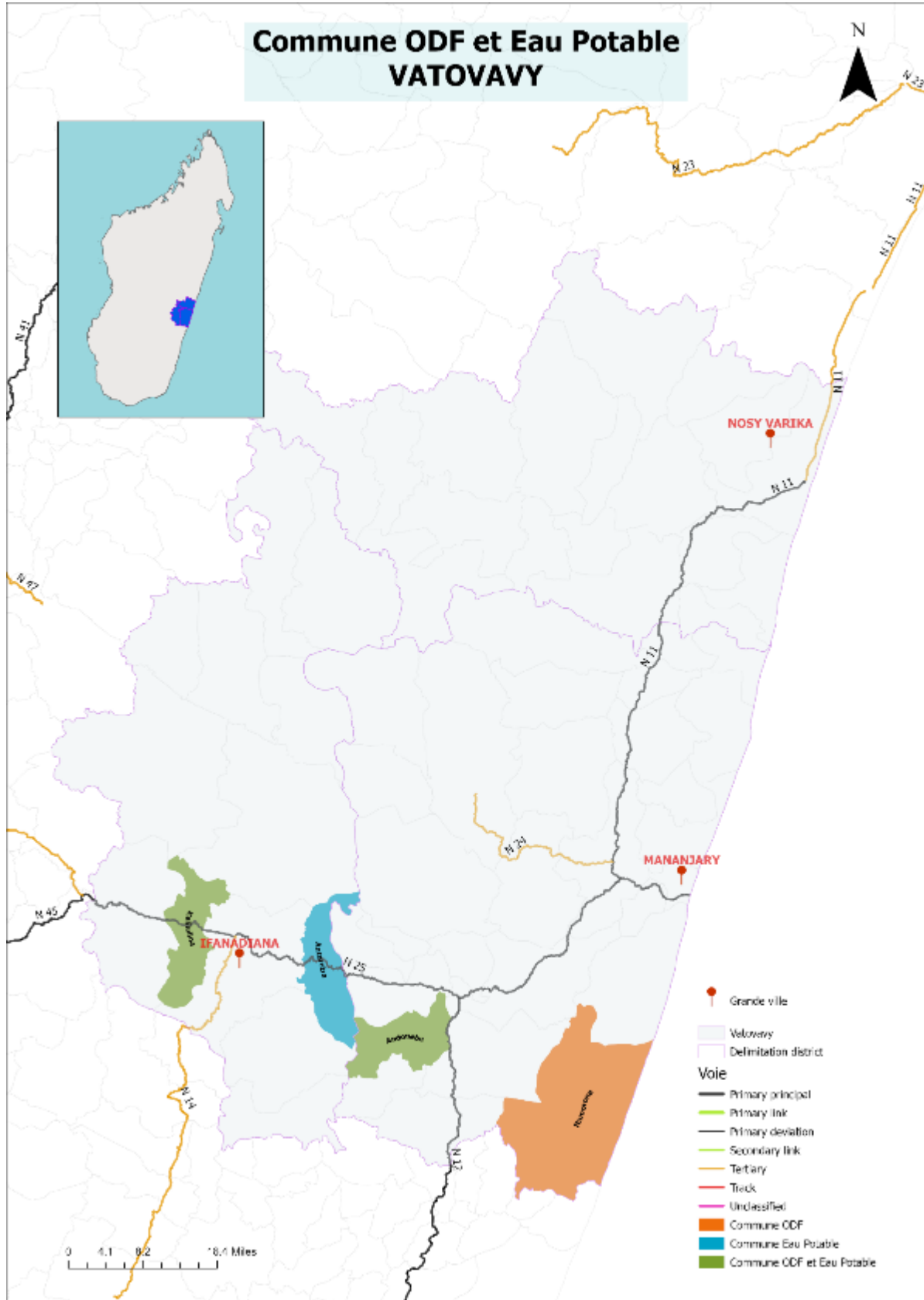














## ANNEX 64. INSTITUTIONS SUPPORTED BY RANO WASH Q4.FY22

### LIST OF SCHOOLS SUPPORTED BY RANO WASH

EPP = Ecole Primaire Publique (Public Primary School) EP= Ecole Privé (Private School)  
CEG = Collège d'Enseignement Général ( Public Middle School) EC = Ecole Communautaire (Community School)CP = Collège Privé ( Private College)

#	REGION	DISTRICT	COMMUNE	SCHOOL NAME	WATER	SANITATION
1	ALAOTRA MANGORO	AMPARAFARAVOLA	AMPARAFARAVOLA	CEG AMPARAFARAVOLA	yes	no
2	ALAOTRA MANGORO	AMPARAFARAVOLA	AMPARAFARAVOLA	ECOLE PRIVÉ LE NINOS	yes	no
3	ALAOTRA MANGORO	MORAMANGA	BEFORONA	ECOLE PRIVÉ MAHARY SCHOOL	yes	no
4	ALAOTRA MANGORO	AMPARAFARAVOLA	AMPARAFARAVOLA	ECOLE PRIVÉ ST MICHEL	yes	no
5	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	EPP ANOSIBE	yes	no
6	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	EPV FPPM AMBODINIFODY	yes	no
7	ALAOTRA MANGORO	MORAMANGA	BEFORONA	EP LA RUCHE	yes	no
8	ALAOTRA MANGORO	MORAMANGA	BEFORONA	EP SAINT TRINITE	yes	no
9	ALAOTRA MANGORO	MORAMANGA	SABOTSY ANJIRO	COLLÈGE PRIVÉ NINOS	yes	no
10	ALAOTRA MANGORO	MORAMANGA	SABOTSY ANJIRO	ECOLE PRIVÉ ST JOSEPH	yes	no
11	ALAOTRA MANGORO	AMPARAFARAVOLA	MORARANO CHROME	COLLÈGE D'ENSEIGNEMENT GENERAL MORARANO CHROME	yes	no
12	ALAOTRA MANGORO	AMPARAFARAVOLA	MORARANO CHROME	EPP MORARANO CHROME	yes	no
13	ALAOTRA MANGORO	AMPARAFARAVOLA	MORARANO CHROME	EPP SECTEUR 3 AMBAIBOHO MORARANO CHROME	yes	no
14	ALAOTRA MANGORO	AMPARAFARAVOLA	MORARANO CHROME	LYCEE MORARANO CHROME	yes	no
15	ALAOTRA MANGORO	MORAMANGA	SABOTSY ANJIRO	ANNEXE EPP SABOTSY ANJIRO	yes	yes
16	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	CEG ANOSIBE	yes	yes
17	ALAOTRA MANGORO	MORAMANGA	BEFORONA	CEG BEFORONA	yes	yes
18	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	CP LES PETITS JOYEUX	yes	yes

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#	REGION	DISTRICT	COMMUNE	SCHOOL NAME	WATER	SANITATION
19	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	EC AMBODIRANO	yes	yes
20	ALAOTRA MANGORO	MORAMANGA	SABOTSY ANJIRO	CEG SABOTSY ANJIRO	yes	yes
21	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	EPP AMBODINIFODY	yes	yes
22	ALAOTRA MANGORO	AMPARAFARAVOLA	AMPARAFARAVOLA	EPP ANTSAHAVOLA	yes	yes
23	ALAOTRA MANGORO	MORAMANGA	BEFORONA	EPP BEFORONA	yes	yes
24	ALAOTRA MANGORO	MORAMANGA	SABOTSY ANJIRO	EPP SABOTSY ANJIRO	yes	yes
25	ALAOTRA MANGORO	MORAMANGA	BEFORONA	EPP MAROZEVO	yes	yes
26	ALAOTRA MANGORO	MORAMANGA	BEFORONA	ECOLE PRIVE CATHOLIQUE ST TRINITE	yes	yes
27	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	ECOLE CATHOLIQUE	yes	yes
28	ALAOTRA MANGORO	AMPARAFARAVOLA	AMPARAFARAVOLA	SAINT MICHEL	yes	yes
29	ALAOTRA MANGORO	MORAMANGA	SABOTSY ANJIRO	ÉCOLE PRIVÉE CATHOLIQUE ST CHANTAL	yes	yes
30	ALAOTRA MANGORO	AMPARAFARAVOLA	AMBOAVORY	CEG	yes	yes
31	ALAOTRA MANGORO	AMPARAFARAVOLA	MORARANO CHROME	COLLÈGE D'ENSEIGNEMENT GENERAL AMBAIBO	yes	yes
32	ALAOTRA MANGORO	AMPARAFARAVOLA	MORARANO CHROME	EPP MORARANO OUEST	yes	yes
33	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	CEG TSARAFASINA ANOSIBE IFODY	no	yes
34	ALAOTRA MANGORO	AMPARAFARAVOLA	VOHITSARA	CEG VOHITSARA	no	yes
35	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	EPP TSARAFASINA ANOSIBE IFODY	no	yes
36	ALAOTRA MANGORO	MORAMANGA	MORARANO GARA	CEG MORARANO GARE	no	yes
37	ALAOTRA MANGORO	AMPARAFARAVOLA	AMBOAVORY	EPP AMBOHIDEHILAHY	no	yes
38	ALAOTRA MANGORO	AMPARAFARAVOLA	AMBOAVORY	EPP AMBOAVORY	no	yes
39	ALAOTRA MANGORO	MORAMANGA	MORARANO GARA	EPP MORARANO GARA	yes	yes
40	ALAOTRA MANGORO	AMPARAFARAVOLA	SAHAMAMY	EPP SAHAMAMY	no	yes
41	ALAOTRA MANGORO	AMPARAFARAVOLA	SAHAMAMY	LA VIE	no	yes
42	ALAOTRA MANGORO	AMPARAFARAVOLA	AMBOAVORY	LYCÉE	no	yes

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43	ALAOTRA MANGORO	AMPARAFARAVOLA	SAHAMAMY	NDB	no	yes
44	AMORON_I_MANIA	AMBOSITRA	ILAKA CENTRE	CEG ILAKA CENTRE	yes	yes
45	AMORON_I_MANIA	AMBOSITRA	ANTOETRA	EPP ANTOETRA	yes	yes
46	AMORON_I_MANIA	FANDRIANA	SANDRANDAHY	EPP RONAMPY	yes	yes
47	AMORON_I_MANIA	AMBOSITRA	TSARASAOTRA	EPP TSARASAOTRA	yes	yes
48	AMORON_I_MANIA	MANANDRIANA	AMBATOMARINA	CEG AMBATOMARINA	yes	yes
49	AMORON_I_MANIA	MANANDRIANA	AMBATOMARINA	EPP AMBATOMARINA	yes	yes
50	AMORON_I_MANIA	MANANDRIANA	AMBATOMARINA	LYCEE AMBATOMARINA	yes	yes
51	AMORON_I_MANIA	AMBOSITRA	ILAKA CENTRE	EPP ILAKA CENTRE	yes	yes
52	AMORON_I_MANIA	AMBOSITRA	ILAKA CENTRE	LYCEE ILAKA CENTRE	yes	yes
53	AMORON_I_MANIA	AMBOSITRA	ILAKA CENTRE	EPP IKIANJA	yes	yes
54	AMORON_I_MANIA	AMBOSITRA	ILAKA CENTRE	EPP SOAVINA	yes	yes
55	AMORON_I_MANIA	AMBOSITRA	ILAKA CENTRE	CEG SOAVINA	yes	yes
56	ATSINANANA	TOAMASINA II	AMPASIMBE ONIBE	CEG AMPASIMBE ONIBE	yes	no
57	ATSINANANA	TOAMASINA II	AMBODITANDROROHO	CEG AMBODITANDROHO	yes	no
58	ATSINANANA	TOAMASINA II	AMPASIMADINIKA MANAMBOLO	CEG AMPASIMADINIKA	yes	no
59	ATSINANANA	BRICKAVILLE	MAHATSARA	CEG MAHATSARA	yes	no
60	ATSINANANA	BRICKAVILLE	MAHATSARA	CEG RANOMAINTY	yes	no
61	ATSINANANA	TOAMASINA II	AMBODILAZANA	CEG AMBODIMANGA VOLOBE	yes	no
62	ATSINANANA	BRICKAVILLE	ANDOVORANTO	CEG ANDOVORANTO	yes	no
63	ATSINANANA	VATOMANDRY	NIHERENANA	CEG NIHERENANA	yes	no
64	ATSINANANA	VATOMANDRY	TSARASAMBO	CEG TSARASAMBO	yes	no
65	ATSINANANA	VATOMANDRY	TSARASAMBO	EC VOHITRAOMBY	yes	no
66	ATSINANANA	VATOMANDRY	ILAKA EST	CEG ILAKA EST	yes	no
67	ATSINANANA	TOAMASINA II	AMBODILAZANA	ECOLE COMMUNAUTAIRE	yes	no

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#	REGION	DISTRICT	COMMUNE	SCHOOL NAME	WATER	SANITATION
68	ATSINANANA	TOAMASINA II	AMBODILAZANA	EPP AMBODILAZANA	yes	no
69	ATSINANANA	TOAMASINA II	AMPASIMADINIKA MANAMBOLO	EPP AMBARIMILAMBANA	yes	no
70	ATSINANANA	TOAMASINA II	AMBODITANDROROHO	EPP AMBOAKARIVO	yes	no
71	ATSINANANA	TOAMASINA II	AMBODILAZANA	EPP AMBODIMANGA VOLOBE	yes	no
72	ATSINANANA	TOAMASINA II	AMBODIRIANA	EPP AMBODIRIANA	yes	no
73	ATSINANANA	TOAMASINA II	AMBODILAZANA	EPP AMBODITEZA	yes	no
74	ATSINANANA	VATOMANDRY	NIHERENANA	EPP AMBODIVANDRIKA	yes	no
75	ATSINANANA	VATOMANDRY	TSARASAMBO	EPP AMPAHO	yes	no
76	ATSINANANA	VATOMANDRY	TSARASAMBO	EPP AMBODIVONTAKA	yes	no
77	ATSINANANA	TOAMASINA II	AMBODITANDROROHO	EPP AMBODITANDROHO	yes	no
78	ATSINANANA	VATOMANDRY	NIAROVANA CAROLINE	EPP BONAKA	yes	no
79	ATSINANANA	BRICKAVILLE	MAHATSARA	EPP ISOKATRA	yes	no
80	ATSINANANA	TOAMASINA II	AMBODITANDROROHO	EPP LA MARCELLE AHASOA	yes	no
81	ATSINANANA	VATOMANDRY	NIAROVANA CAROLINE	EPP MAHATSARA	yes	no
82	ATSINANANA	TOAMASINA II	AMBODITANDROROHO	EPP MAHATSARA	yes	no
83	ATSINANANA	VATOMANDRY	NIAROVANA CAROLINE	EPP NIAROVANA CAROLINE	yes	no
84	ATSINANANA	BRICKAVILLE	ANDOVORANTO	EPP ANDOVORANTO	yes	no
85	ATSINANANA	VATOMANDRY	NIHERENANA	EPP ANTANANAMBO	yes	no
86	ATSINANANA	TOAMASINA II	AMBODILAZANA	EPP LOMBOKA	yes	no
87	ATSINANANA	BRICKAVILLE	MAHATSARA	EPP RANOMAINTY	yes	no
88	ATSINANANA	BRICKAVILLE	MAHATSARA	EPP TANANDAVA I	yes	no
89	ATSINANANA	BRICKAVILLE	MAHATSARA	EPP TANANDAVA III	yes	no
90	ATSINANANA	VATOMANDRY	TSARASAMBO	EPP ANALANAMBA	yes	no
91	ATSINANANA	VATOMANDRY	TSARASAMBO	EPP MAROFARIA	yes	no
92	ATSINANANA	BRICKAVILLE	RANOMAFANA EST	EPP RANOMAFANA EST	yes	no

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93	ATSINANANA	VATOMANDRY	TSARASAMBO	EPP TSARASAMBO	yes	no
94	ATSINANANA	BRICKAVILLE	MAHATSARA	EPP VOHIBOAZO	yes	no
95	ATSINANANA	BRICKAVILLE	ANDOVORANTO	EPP AMBILA LEMAITSO	yes	no
96	ATSINANANA	TOAMASINA II	AMPASIMBE ONIBE	EPP SAHORANA	yes	no
97	ATSINANANA	TOAMASINA II	AMPASIMBE ONIBE	EPP AMPASIMBE ONIBE	yes	no
98	ATSINANANA	VATOMANDRY	ILAKA EST	LYCÉE ILAKA EST	yes	no
99	ATSINANANA	VATOMANDRY	NIHERENANA	EPP NIHERENANA	yes	no
100	ATSINANANA	TOAMASINA II	MAHAVELONA (FOULPOINTE)	LYCEE MIXTE ET CEG FOULPOINTE (ONE CONNECTION FOR 2 SCHOOLS)	yes	no
101	ATSINANANA	BRICKAVILLE	RANOMAFANA EST	EPP ANTONGOMBATO	yes	no
102	ATSINANANA	VATOMANDRY	NIHERENANA	EPP VOHIBARY	yes	no
103	ATSINANANA	BRICKAVILLE	MAHATSARA	EPP VOHIMARINA	yes	no
104	ATSINANANA	BRICKAVILLE	RANOMAFANA EST	CEG RANOMAFANA EST	yes	yes
105	ATSINANANA	TOAMASINA II	SAHAMBALA	EPP SAHAMBALA	yes	yes
106	ATSINANANA	TOAMASINA II	ANTETEZAMBARO	EPP ANTETEZAMBARO	yes	yes
107	ATSINANANA	VATOMANDRY	AMBODITAVOLO	EPP LAVAKORANA	no	yes
108	ATSINANANA	TOAMASINA II	SAHAMBALA	CEG SAHAMBALA	yes	yes
109	FITOVINANY	IKONGO	AMBATOFOTSY	CEG AMBALATENINA	yes	no
110	FITOVINANY	VOHIPENO	ANDEMAKA	CEG ANDEMAKA	yes	no
111	FITOVINANY	MANAKARA ATSIMO	FENOMBY	CEG Mangarivotra FENOMBY	yes	no
112	FITOVINANY	IKONGO	MANAMPATRANA	CEG MANAMPATRANA	yes	no
113	FITOVINANY	IKONGO	AMBINANITROMBY	EPP AMBINANITROMBY	yes	no
114	FITOVINANY	IKONGO	AMBATOFOTSY	LYCEE AMBATOFOTSY	yes	no
115	FITOVINANY	VOHIPENO	ANDEMAKA	LYCEE ANDEMAKA	yes	no
116	FITOVINANY	IKONGO	MANAMPATRANA	LYCEE MANAMPATRANA	yes	no

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117	FITOVINANY	IKONGO	TANAKAMBANA	EPP TANAKAMBANA	yes	no
118	FITOVINANY	MANAKARA ATSIMO	LOKOMBY	LYCÉE LOKOMBY	yes	no
119	FITOVINANY	IKONGO	AMBATOFOTSY	CEG AMBATOFOTSY	yes	yes
120	FITOVINANY	MANAKARA ATSIMO	LOKOMBY	CEG LOKOMBY	yes	yes
121	FITOVINANY	IKONGO	AMBATOFOTSY	EPP AMBALATENINA	yes	yes
122	FITOVINANY	IKONGO	AMBATOFOTSY	EPP AMBATOFOTSY	yes	yes
123	FITOVINANY	IKONGO	AMBATOFOTSY	EPP AMBODIARA SAKORIHY	yes	yes
124	FITOVINANY	VOHIPENO	ANDEMAKA	EPP ANDEMAKA	yes	yes
125	FITOVINANY	IKONGO	MANAMPATRANA	EPP MANAMPATRANA	yes	yes
126	FITOVINANY	MANAKARA ATSIMO	FENOMBY	EPP FENOMBY	yes	yes
127	FITOVINANY	MANAKARA ATSIMO	LOKOMBY	EPP LOKOMBY	yes	yes
128	FITOVINANY	VOHIPENO	VOHITRINDRY	CEG VOHITRINDRY	yes	yes
129	FITOVINANY	VOHIPENO	VOHITRINDRY	EPP ANDRANOVOLO	yes	yes
130	FITOVINANY	VOHIPENO	VOHITRINDRY	EPP VOHITRINDRY	yes	yes
131	HAUTE MATSIATRA	AMBALAVAO	ANDRAINJATO	COLLEGE FJKM	yes	no
132	HAUTE MATSIATRA	LALANGINA	ANDROY	EPP ANDROY	yes	no
133	HAUTE MATSIATRA	AMBALAVAO	ANDRAINJATO	EPP MAHATSINJONY	yes	no
134	HAUTE MATSIATRA	LALANGINA	ANDRAINJATO EST	EPP MITONGOA	yes	no
135	HAUTE MATSIATRA	LALANGINA	ANDRAINJATO EST	EPP SAVAHAONA	yes	no
136	HAUTE MATSIATRA	AMBALAVAO	ANDRAINJATO	EPP TSIKARY	yes	no
137	HAUTE MATSIATRA	AMBALAVAO	ANDRAINJATO	LYCEE ANDRAINJATO	yes	no
138	HAUTE MATSIATRA	LALANGINA	ANDRAINJATO EST	LYCEE ANDRAINJATO EST	yes	no
139	HAUTE MATSIATRA	LALANGINA	ANDRAINJATO EST	CEG TAMBONIENJANINA	yes	no
140	HAUTE MATSIATRA	AMBALAVAO	ANDRAINJATO	CEG MAHATSINJONY	yes	no
141	HAUTE MATSIATRA	LALANGINA	ANDRAINJATO EST	EPP TAMBONIENJANINA	yes	no

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#	REGION	DISTRICT	COMMUNE	SCHOOL NAME	WATER	SANITATION
142	HAUTE MATSIATRA	LALANGINA	ANDROY	EPP ANKAMASOA	yes	yes
143	HAUTE MATSIATRA	LALANGINA	ANDROY	CEG ANDROY	yes	yes
144	HAUTE MATSIATRA	VOHIBATO	ANKAROMALAZA MIFANASOA	CEG ANKAROMALAZA CENTRE	no	yes
145	HAUTE MATSIATRA	VOHIBATO	MANEVA	CEG MANEVA	no	yes
146	HAUTE MATSIATRA	LALANGINA	AMBALAMHASOA	EPP AMBALAMHASOA	yes	yes
147	HAUTE MATSIATRA	AMBALAVAO	SENDRISOA	LYCEE SENDRISOA	no	yes
148	VAKINANKARATRA	ANTSIRABE_II	SOANINDRARINY	EPP SOANINDRARINY	yes	no
149	VAKINANKARATRA	ANTSIRABE_II	ANDRANOMANELATRA	TSARAVAVAKA	yes	no
150	VAKINANKARATRA	ANTSIRABE_II	ANDRANOMANELATRA	EPP ANDRANOMANELATRA	yes	no
151	VAKINANKARATRA	ANTSIRABE_II	ANDRANOMANELATRA	EPP ANTANETIBE	yes	no
152	VAKINANKARATRA	ANTSIRABE_II	ANDRANOMANELATRA	EPP BEMOLOLO	yes	no
153	VAKINANKARATRA	BETAFO	MAHAIZA	EPP FENOARIVO	yes	no
154	VAKINANKARATRA	BETAFO	MAHAIZA	EPP MAHAIZA	yes	no
155	VAKINANKARATRA	BETAFO	MAHAIZA	EPP MIANDRARIVO	yes	no
156	VAKINANKARATRA	ANTSIRABE_II	AMBOHITSIMANOVA	EPP ANTANAMALAZA	yes	yes
157	VAKINANKARATRA	BETAFO	ALAKAMISY-ANATIVATO	EPP ANJANAMASY	yes	yes
158	VAKINANKARATRA	ANTSIRABE_II	ANTSOATANY	EPP ANTSAMPANIMHAZO	yes	yes
159	VAKINANKARATRA	ANTSIRABE_II	ANDRANOMANELATRA	CEG ANDRANOMANELATRA	yes	yes
160	VAKINANKARATRA	ANTSIRABE_II	AMBANO	EPP AMBANO	yes	yes
161	VAKINANKARATRA	ANTSIRABE_II	AMBOHIDRANANDRIANA	EPP MIARINARIVO	yes	yes
162	VAKINANKARATRA	BETAFO	AMBOHIMANAMBOLA	EPP AMBOHIMANAMBOLA	yes	yes
163	VAKINANKARATRA	BETAFO	TRITRIVA	CEG TRITRIVA	no	yes
164	VAKINANKARATRA	ANTANIFOTSY	SOAMANANDRARINY	EPP AMBILONA	no	yes
165	VAKINANKARATRA	ANTSIRABE_II	ANDRANOMANELATRA	EPP TSARAVAVAKA	no	yes
166	VATOVAVY	IFANADIANA	KELILALINA	CEG KELILALINA	yes	no

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167	VATOVAVY	IFANADIANA	ANTARETRA	EPP AMBONGO	yes	no
168	VATOVAVY	IFANADIANA	ANTARETRA	CEG ANTARETRA	yes	yes
169	VATOVAVY	IFANADIANA	KELILALINA	CEG KIANJANOMBY	yes	yes
170	VATOVAVY	IFANADIANA	ANTARETRA	EPP ANTARETRA	yes	yes
171	VATOVAVY	IFANADIANA	KELILALINA	EPP KIANJANOMBY	yes	yes
172	VATOVAVY	IFANADIANA	KELILALINA	SEKOLY FO MADION' NY MARIA	yes	yes
173	VATOVAVY	IFANADIANA	KELILALINA	EPP KELILALINA	no	yes
174	VATOVAVY	MANANJARY	ANDONABE	CEG ANDONABE	yes	yes
175	VATOVAVY	MANANJARY	ANDONABE	EPP ANDONABE	yes	yes

**LIST OF HEALTH CENTERS SUPPORTED BY RANO WASH**

CSB = Centre de Santé de base

#	REGION	DISTRICT	COMMUNE	HEALTHCENTER NAME	WATER	SANITATION
1	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	CSB 2 AMBODINIFODY	yes	yes
2	ALAOTRA MANGORO	AMPARAFARAVOLA	AMPARAFARAVOLA	CHRD AMPARAFARAVOLA	yes	yes
3	ALAOTRA MANGORO	MORAMANGA	MORAMANGA	CHRD ANNEXE AMBOHITRANJVIDY	yes	no
4	ALAOTRA MANGORO	MORAMANGA	ANOSIBE IFODY	CSB 2 ANOSIBE	yes	yes
5	ALAOTRA MANGORO	MORAMANGA	SABOTSY ANJIRO	CSB 2 BEFORONA	yes	yes
6	ALAOTRA MANGORO	MORAMANGA	SABOTSY ANJIRO	CSB 2 SABOTSY ANJIRO	yes	yes
7	ALAOTRA MANGORO	AMPARAFARAVOLA	AMPARAFARAVOLA	CSB 2 AMPARAFARAVOLA	yes	yes
8	ALAOTRA MANGORO	MORAMANGA	MORARANO GARA	CSB 2 MORARANO GARA	no	yes
9	ALAOTRA MANGORO	AMPARAFARAVOLA	MORARANO CHROME	CSB 2 MORARANO CHROME	yes	no
10	ALAOTRA MANGORO	AMPARAFARAVOLA	AMBOAVORY	CSB2 AMBOAVORY	yes	yes
11	ALAOTRA MANGORO	AMPARAFARAVOLA	SAHAMAMY	CSB 2 SAHAMAMY	no	yes



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#	REGION	DISTRICT	COMMUNE	HEALTHCENTER NAME	WATER	SANITATION
12	ALAOTRA MANGORO	AMBATONDRAZAKA	AMBOHITSILAOZANA	CSB 1 ANTANDROKOMBY	no	yes
13	ALAOTRA MANGORO	AMBATONDRAZAKA	AMBOHITSILAOZANA	CSB 2 AMBOHITSILAOZANA	no	yes
14	AMORON_I_MANIA	AMBOSITRA	AMBALAMANAKANA	CSB 2 AMBALAMANAKANA	yes	yes
15	AMORON_I_MANIA	AMBOSITRA	AMBATOFITORAHANA	CSB 2 AMBATOFITORAHANA	yes	yes
16	AMORON_I_MANIA	MANANDRIANA	AMBATOMARINA	CSB 2 AMBATOMARINA	yes	yes
17	AMORON_I_MANIA	AMBOSITRA	SAHATSIHO AMBOHIMANJAKA	CSB 2 AMBOHIMANJAKA	yes	yes
18	AMORON_I_MANIA	MANANDRIANA	ANJOMAN_ANKONA	CSB 2 ANJOMAN'ANKONA	yes	yes
19	AMORON_I_MANIA	AMBOSITRA	ANKAZOAMBO	CSB 2 ANKAZOAMBO	yes	yes
20	AMORON_I_MANIA	AMBOSITRA	ANTOETRA	CSB 2 ANTOETRA	yes	yes
21	AMORON_I_MANIA	FANDRIANA	FIADANANA	CSB 2 FIADANANA	yes	yes
22	AMORON_I_MANIA	AMBOSITRA	ILAKA CENTRE	CSB 2 ILAKA CENTRE	yes	yes
23	AMORON_I_MANIA	FANDRIANA	SANDRANDAHY	CSB 2 SANDRANDAHY	yes	yes
24	AMORON_I_MANIA	AMBOSITRA	KIANJANDRAKEFINA	CSB 2 KIANJANDRAKEFINA	no	yes
25	AMORON_I_MANIA	AMBOSITRA	MAROSOA	CSB 2 MAROSOA	no	yes
26	ATSINANANA	TOAMASINA II	AMBODILAZANA	CSB 1 LOMBOKA	yes	no
27	ATSINANANA	TOAMASINA II	AMBODITANDROROHO	CSB 1 AMBODITANDROHO	yes	no
28	ATSINANANA	TOAMASINA II	AMBODITANDROROHO	CSB 2 AMBODITANDROHO	yes	no
29	ATSINANANA	TOAMASINA II	AMBODILAZANA	CSB 2 AMBODILAZANA	yes	no
30	ATSINANANA	BRICKAVILLE	ANDOVORANTO	CSB 2 ANDOVORANTO	yes	no
31	ATSINANANA	TOAMASINA II	AMPASIMADINIKA MANAMBOLO	CSB 2 AMPASIMADINIKA	yes	yes
32	ATSINANANA	BRICKAVILLE	MAHATSARA	CSB 2 MAHATSARA	yes	yes
33	ATSINANANA	VATOMANDRY	NIAROVANA CAROLINE	CSB 2 NIAROVANA CAROLINE	yes	yes
34	ATSINANANA	BRICKAVILLE	RANOMAFANA EST	CSB 2 RANOMAFANA EST	yes	no
35	ATSINANANA	VATOMANDRY	TSARASAMBO	CSB 2 TSARASAMBO	yes	no

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#	REGION	DISTRICT	COMMUNE	HEALTHCENTER NAME	WATER	SANITATION
36	ATSINANANA	BRICKAVILLE	MAHATSARA	CSB 1 RANOMAINTY	yes	no
37	ATSINANANA	VATOMANDRY	NIHERENANA	CSB 2 NIHERENANA	yes	no
38	ATSINANANA	BRICKAVILLE	RANOMAFANA EST	CSB 1 ANTONGOMBATO	yes	no
39	ATSINANANA	TOAMASINA II	SAHAMBALA	CSB 2 SAHAMBALA	yes	no
40	ATSINANANA	TOAMASINA II	AMPASIMBE ONIBE	CSB 2 AMPASIMBE ONIBE	yes	no
41	ATSINANANA	TOAMASINA II	MAHAVELONA (FOULPOINTE)	CSB 2 FOULPOINTE	yes	no
42	FITOVINANY	MANAKARA ATSIMO	FENOMBY	CSB 2 KIANJAMIAKATRA	yes	yes
43	FITOVINANY	IKONGO	KALAFOTSY	CSB 2 KALAFOTSY	yes	no
44	FITOVINANY	MANAKARA ATSIMO	LOKOMBY	CSB 2 LOKOMBY	yes	yes
45	FITOVINANY	IKONGO	MAROMIANDRA	CSB 2 MAROMIANDRA	yes	no
46	FITOVINANY	IKONGO	MANAMPATRANA	CSB 2 MANAMPATRANA	yes	yes
47	FITOVINANY	IKONGO	AMBATOFOTSY	CSB AMBALATENINA (ANNEXE CSB 2 AMBATOFOTSY)	yes	no
48	FITOVINANY	IKONGO	AMBATOFOTSY	CSB 2 AMBATOFOTSY	yes	no
49	FITOVINANY	VOHIPENO	ANDEMAKA	CSB 2 ANDEMAKA	yes	yes
50	FITOVINANY	VOHIPENO	VOHITRINDRY	CSB 2 VOHITRINDRY	yes	yes
51	HAUTE MATSIATRA	LALANGINA	ANDROY	CSB 2 ANDROY	yes	yes
52	HAUTE MATSIATRA	LALANGINA	ANDRAINJATO EST	CSB 2 MITONGOA	yes	no
53	HAUTE MATSIATRA	AMBALAVAO	ANDRAINJATO	CSB 2 ANDRAINJATO	yes	no
54	VAKINANKARATRA	ANTSIRABE_II	SOANINDRARINY	CSB 2 SOANINDRARINY	yes	yes
55	VAKINANKARATRA	BETAFO	AMBOHIMANAMBOLA	CSB 2 AMBOHIMANAMBOLA	yes	yes
56	VAKINANKARATRA	ANTSIRABE_II	AMBANO	CSB 2 AMBANO	yes	no
57	VAKINANKARATRA	ANTSIRABE_II	SAHANIVOTRY-MANANDONA	CSB 2 SAHANIVOTRY	yes	yes
58	VAKINANKARATRA	BETAFO	MANDRITSARA	CSB 2 ANKABAHABA	yes	yes
59	VAKINANKARATRA	ANTANIFOTSY	AMBATOTSIPIHINA	CSB 2 AMBATOTSIPIHINA	yes	yes

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#	REGION	DISTRICT	COMMUNE	HEALTHCENTER NAME	WATER	SANITATION
60	VAKINANKARATRA	BETAFO	MAHAIZA	CSB 2 MAHAIZA	yes	yes
61	VAKINANKARATRA	ANTSIRABE_II	ANDRANOMANELATRA	CSB 2 ANDRANOMANELATRA	yes	no
62	VAKINANKARATRA	ANTSIRABE_II	ANDRANOMANELATRA	CSB 2 AMBEROBE	yes	no
63	VAKINANKARATRA	BETAFO	TRITRIVA	CSB 2 TRITRIVA	no	yes
64	VAKINANKARATRA	ANTANIFOTSY	AMBOHIMANDROSO	CSB 2 AMBOHIMANDROSO	no	yes
65	VAKINANKARATRA	BETAFO	SOAVINA	CSB 2 SOAVINA	no	yes
66	VAKINANKARATRA	ANTSIRABE_II	AMBOHIDRANANDRIANA	CSB 2 AMBOHIDRANANDRIANA	no	yes
67	VAKINANKARATRA	ANTANIFOTSY	SOAMANANDRARINY	CSB 2 SOAMANANDRARINY	no	yes
68	VAKINANKARATRA	BETAFO	ANTSOSO	CSB 2 ANTSOSO	yes	yes
69	VAKINANKARATRA	ANTSIRABE_II	ANTSOATANY	CSB 2 ANTSOATANY	yes	yes
70	VAKINANKARATRA	ANTSIRABE_II	AMBOHITSIMANOVA	CSB 2 ANTANAMALAZA	yes	yes
71	VATOVAVY	IFANADIANA	ANTARETRA	CSB 2 ANTARETRA	yes	no
72	VATOVAVY	IFANADIANA	KELILALINA	TOBY PIVOT	yes	no
73	VATOVAVY	MANANJARY	ANDONABE	CSB 2 ANDONABE	yes	yes

## ANNEX 65. SUMMARY OF GENDER MAINSTREAMING ACHIEVEMENTS IN FY2022



### Gender and social inclusion

- Women operators provide WASH services.
- WASH services consider specific needs: latrines, WASH infrastructure in schools and health centers, sanitary napkins of different sizes
- Men and women can discuss menstrual hygiene
- Women are represented and participate in decision-making bodies
- Women are recognized and selected to become leaders in public and private institutions
- Women fight against GBV
- The distribution of roles and responsibilities in the family contributes to the adoption of healthy behaviors.
- Women, men, and children eat together at home.



### Institutional Arrangement

- The functionality of the different development structures with the participation of men and women, and youth: SRMO, SLC, local committees
- Consultation of the different entities in the planning process
- Importance of the strong contribution of VSLA in achieving communal objectives (e.g., participation and contribution to the ODF celebration)



### Sector Co-ordination and integration

- Institution of a sectoral review every six months with all the actors of the sector
- Region, District, STD, and Regional Management conduct the ODF audit together



### Monitoring

- Monitoring of the communal action plan involving all local structures (Commune/STEAH, ASUREP, OSCEAH, leaders)
- Private operators make detailed follow-ups of clients
- Efforts for disaggregated data in the SE&AM system



### Strategic planning

- Consultation of community groups with representatives of various local structures during the development of the PCDEAH
- Inclusive SLC set up in each Commune
- Evaluation of communal governance conducted in a participatory manner



### Financing

- WASH funds were initiated with VSLA groups.
- Networking of local masons and local seamstresses, including men and women small operators
- Linking VSLA groups, local masons' and tailors' networks to microfinance institutions
- Mobilization of communal taxes, households, and groups' funds for the WASH sector



### Service delivery & behaviour change

- Inclusive institutional infrastructure models: with ramps, separate latrines for men and women, boys and girls
- Private operators developing products and services that meet the needs of different categories of clients: latrines, showers, water connections, sanitary pads, handwashing devices with soap
- Communities and households openly discuss menstrual hygiene.
- Various payment modalities for WASH services developed by the WASH private operators: payment in installments, consideration of lean and harvest periods, payment in kind
- Use of social cohesion



### Accountability and regulation

- Operational accountability mechanisms for WASH services at the community and communal levels
- OSCEAH and ASUREP dynamic
- Traditional leaders are committed to facilitating resolutions to WASH-related problems



### Environment and water resources

- Increased use of washable sanitary pads in rural areas
- Model households apply environmentally friendly behaviors: garbage pits, clean and covered latrines, clean houses, ...
- Private operators and ASUREP are engaged to protect water systems: catchment areas, reservoirs, and water pipes.
- WSP is committed to monitoring the quality of water provided to the population
- Various local initiatives for reforestation activities and the establishment of firewalls

# **RANO WASH**

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