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RANO WASH

RANO WASH
RURAL ACCESS TO NEW OPPORTUNITIES IN WATER, SANITATION, AND HYGIENE

FINAL REPORT
JUNE 2017 – JUNE 2023

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

FINAL REPORT
JUNE 2017 – JUNE 2023

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FRONT PICTURE

Sedra is very happy to have water nearby and of good quality. Fokontany Androy, Haute Matsiatra Region (Photo credit: RANO WASH)

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ACRONYMS AND ABBREVIATIONS

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

ERR	Environmental Review Report
ESF	Environmental Screening Form
FAA	Fonds d'Appui pour l'Assainissement (Global Sanitation Fund)
FUM	Follow-up Mandona
FY	Fiscal Year
GEM	Groupement des Entreprises de Madagascar
GoM	Government of Madagascar
GSF	Global Sanitation Fund
IBM	Integrated Behavioral Model
ICT4D	Information and Communication Technology for Development
IP	Implementing Partner
IPTT	Indicator Performance Tracking Table
IWRM	Integrated Water Resource Management
JSR	Joint Sectoral Review
KRFF	Local Committees at Fokontany Level
LDP WASH	Local Development WASH Plan
LP2D	Lettre de Politique pour la Décentralisation et le Développement Local
LSHTM	London School of Hygiene and Tropical Medicine
MCSP	Maternal and Child Survival Program
MID	Ministère de l'Intérieur et de la Décentralisation (Ministry of the Interior and Decentralization)
MEAH	Ministère de l'Eau, de l'Assainissement et de l'Hygiène
MEO	Mission Environmental Officer
MFI	Micro-Finance Institution
MHM	Menstrual Hygiene Management
MNP	Madagascar National Parks
MOC	Maîtrise d'Ouvrage Communale (Communal Project Management)
MoEEF	Ministry of Environment, Ecology, and Forest
MoFB	Ministry of Finance and Budget
MoID	Ministry of Interior and Decentralization
MoNE	Ministry of National Education
MoPH	Ministry of Public Health
MOU	Memorandum of Understanding
MTDN	Minister of Posts, Telecommunications, and Digital Development
NGO	Nongovernmental Organization
NPP-WSH	National Platform for the Promotion of Water, Sanitation, and Hygiene
ODF	Open Defecation-Free
ODDIT	Organisme de Développement du Diosèce de Toamasina (Toamasina Diocese Development Organization)
ONCD	National Office of Concertation and Decentralization
ORN	Office Regional de Nutrition (Regional Office of Nutrition)
PCDEAH	Plan Communal de Développement en Eau, Assainissement et Hygiène
PCT	Project Coordination Team
PGDI	Projet de Gouvernance et de Développement Institutionnel (Governance and Institutional Development Project)

PGRM	Projet de Gouvernance des Ressources Minières (Mining Resources Governance Project)
PHE	Population, Health, and Environment
PIC	Projet Pôles Intégrés de Croissance (Integrated Growth Pole Project)
PIDA	Program for Infrastructure and Development in Africa
PIRS	Performance Indicator Reference Sheet
PMP	Performance Monitoring Plan
PNI	WASH National Investment Plan
PNP-EAH	Plateforme Nationale de la Promotion de l'Eau, Assainissement et Hygiène (National Platform for the Promotion of Water, Sanitation and Hygiene)
PPP	Public–Private Partnership
PPR	Performance Plan Report
PSEAH	Programme Sectoriel en Eau, Assainissement et Hygiène
Q1, Q2, Q3, Q4	Financial Quarter 1, 2, 3, 4
RANO WASH	Rural Access to New Opportunities in Water, Sanitation, and Hygiene
RDONE	Regional Director of National Education
RDOPH	Regional Director of Public Health
RDoWEAH	Regional Director of Water, Sanitation and Hygiene
RPGEM	Réseau des Promoteurs de Groupes d'Epargne à Madagascar (Savings Groups Promoters Network in Madagascar)
SDG	Sustainable Development Goal
SE&AM	Suivi Eau et Assainissement de Madagascar (Madagascar Water and Sanitation Monitoring)
SILC	Specialized Investment and Lending Corporation
SLC	Structure Locale de Concertation (Local Dialogue Structure)
SMILER	Simple Monitoring of Indicators for Learning and Evidence-based Reporting
SMMEC	Société Malgache de Mutuelle d'Epargne et de Crédit
SO	Strategic Objective
SRB	Service Régional du Budget – Regional Budget Office
SRMO	Structure de mise en œuvre de la coordination Régionale
STEAH	Service Technique de l'Eau, Assainissement et l'Hygiène (Water, Sanitation and Hygiene Technical Department)
STeFI	Suivi Technique et Financier (Technical and Financial Monitoring)
STH	Soil-transmitted Helminth Infections
STTA	Short-term Technical Assistance
SWA	Sanitation and Water for All
SWAp	Sector-wide Approach
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TA	Technicien d'Appui
TDY	Temporary Duty
TFP	Technical and Financial Partner
ToR	Terms of Reference
ToT	Training of Trainers
USA	United States of America
USAID	United States Agency for International Development

USG	United States Government
VAT	Value Added Tax
VA/PSP	Village Agent/Private Service Provider
VSLA	Village Savings and Loan Association
WALIS	Water for Africa through Leadership Institutional Support
WASH	Water Sanitation and Hygiene
WASH-BAT	WASH Bottleneck Analysis Tool
WASH-BC	WASH Behavior Change
WHO	World Health Organization
WMA	WASH Market Assessment
WMDP	WASH Market Development Plan
WQAP	Water Quality Assurance Plan
WSP	WASH Service Provider

1 EXECUTIVE SUMMARY

1.1 PROJECT DESCRIPTION/INTRODUCTION

The USAID Madagascar Rural Access to New Opportunities in Water, Sanitation, and Hygiene (RANO WASH) Project (Cooperative Agreement No. AID-687-A-17-00002) has been a six-year, $33 million initiative designed to support the Government of Madagascar (GoM) in achieving its safe water and sanitation Sustainable Development Goals (SDG) targets as well as the GoM's target of universal access to water and sanitation services. The Project aimed 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.

CARE International led the RANO WASH consortium with core partners Catholic Relief Services (CRS), WaterAid, BushProof, and Sandandrano, alongside a broad range of resource partners (Figure 1). A full list of the communes in the Project regions is presented in Annex 10.

The Project developed a systematic partnership with national, regional, and commune governments; water and sanitation institutions (i.e., health facilities and schools); communities; private sector actors; and civil society organizations. The aim was to implement a strategic set of mutually supporting activities that contributed 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; and
3. Accelerating the adoption of healthy behaviors and the use of WASH services.

The Project contributed directly to the USAID/Madagascar Health Population and Nutrition's Intermediate Result (IR) 1.1 *Sustainable Health Impacts Accelerated* and corresponding 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 aligned with USAID Madagascar's Water for the World Country Plan[1] through contributions to three out of four program components[2]:

1. Improved WASH-enabling environment;
2. Public/Private Partnership for at least basic or safely managed service provision of clean water and sanitation; and
3. Rural sanitation and hygiene behavior change.

[1] https://www.globalwaters.org/wherewework/africa/madagascar
https://www.globalwaters.org/sites/default/files/wfw_madagascar_country_plan.pdf
[2] The fourth component is Urban Sanitation and Sanitation Service Provision.

The Project was 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).

Figure 1. RANO WASH Consortium and resource partners

This is the Final Report issued under RANO WASH and covers the period of June 15, 2017, through June 15, 2023. This report also serves as the final Quarterly Report under the Project, covering the period from May 1, 2023, through project completion on June 15, 2023.

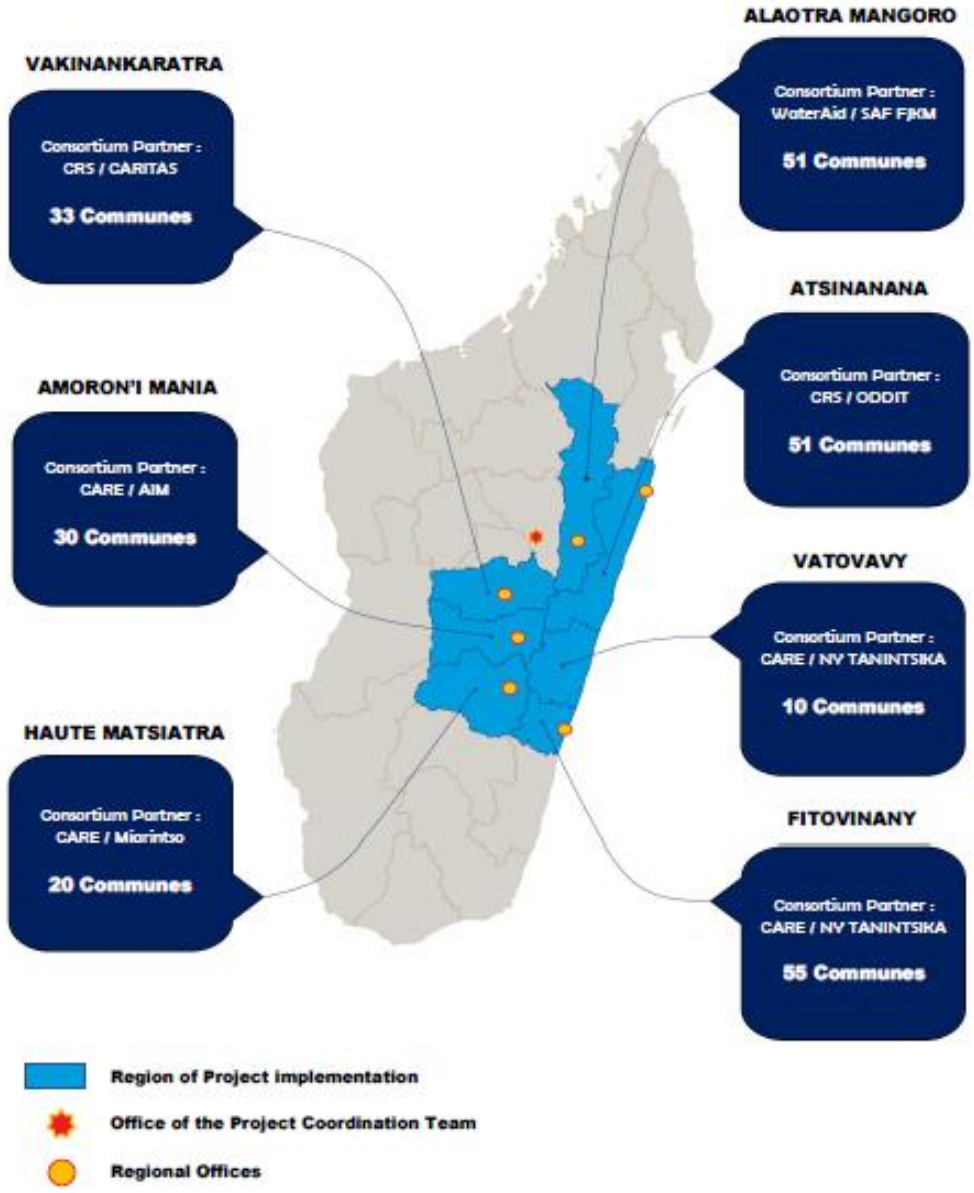


Figure 2. RANO WASH Regions

1.2 SUMMARY OF ACHIEVEMENTS AND IMPACT

OVERALL INDICATOR PROGRESS

This report highlights the actions and achievements of RANO WASH in its three key components—governance, private-sector engagement, behavior change and use of services—alongside the cross-cutting component of gender and social inclusion. Key achievements in each are summarized below.

Governance and monitoring of the WASH sector: RANO WASH has demonstrated significant progress in establishing a robust mechanism of sector planning, review, coordination and monitoring at the national, regional and communal levels. Leveraging the STEAH model, the program has effectively increased public investment in WASH initiatives across 146 communes, including an impressive $2 million in public funding mobilized for WASH services across seven regions. Furthermore, the successful implementation of WASH accountability mechanisms in 231 communes has ensured transparency and efficiency in service delivery. The SE&AM national monitoring platform has been instrumental in achieving a commendable 97-percent reporting rate from RANO WASH communes, facilitating continuous monitoring and evaluation.

Private-sector engagement in the delivery of WASH services: Through strategic partnerships and initiatives, RANO WASH has attracted substantial investments, with water operators contributing $700,000. Additionally, the program has successfully mobilized $78,000 for WASH products through VSLAs, primarily benefiting women. The establishment of more than 40 Public–Private Partnerships (PPPs) for water service delivery has given approximately 312,000 individuals access to clean water, demonstrating the Project's commitment to effective and sustainable WASH services development. 22 WSPs ("Builders – Co-investors – Managers") are managing 75 water systems.

Behavior change and use of services: RANO WASH has made commendable efforts in promoting behavior change and utilization of WASH services. With a strong emphasis on community engagement, the program has successfully fostered an environment conducive to Open Defecation-Free (ODF) practices, in contribution to the Government of Madagascar's Madio Madagasikara (Clean Madagascar) commitments. Nearly 1 million people in RANO WASH regions live in an ODF environment, significantly improving public health. Additionally, 742,500 individuals have gained access to basic or limited sanitation services, thereby promoting healthier and more hygienic behaviors within communities.

Mainstreaming gender and social inclusion in the WASH sector: The program has achieved significant milestones in promoting gender equality and social inclusion. RANO WASH has facilitated a threefold increase in the representation of women and youth in local entrepreneurship and leadership positions, thereby fostering greater inclusivity and more diverse perspectives. Incorporating gender focal points in the MEAH, MinPop, MoPH, and MNE has been instrumental in developing gender-sensitive policies and infrastructure, thereby promoting equitable access to WASH services. The program's focus on behavior change and gender-transformative approaches has also contributed to a dignified and serene life for girls and women during menstruation, understanding of gender equality principles, and engaging men in women's empowerment.

Impacts beyond RANO WASH project objectives: RANO WASH affected two paradigm shifts: adopting a systems approach and engaging the private sector. The impact of this work can be seen beyond RANO WASH direct intervention areas. With support from DREAHs, 10 communes received unsolicited offers for water system upgrades from private

investors. DREAHs assisted these communes in operationalizing the water systems and strengthening resource mobilization for others, including private-sector partnerships. Additionally, 22 strengthened WSPs aim to expand services beyond covered fokontany and RANO WASH intervention communes, and are currently negotiating with financial institutions to receive financial services. Equipment suppliers are collaborating with WSPs to provide tailored payment facilities, and communes with APS/APDs are sharing their study results to advance water system construction. RANO WASH is having a transformative impact that fosters inclusivity and sustainability.

The success of RANO WASH in the areas of governance, private-sector involvement and infrastructure development, behavior change and use of services, as well as gender and social integration, is evident in the significant impact it has had on both the WASH sector and the communities it serves. RANO WASH achieved these successes through a robust systems approach, strengthening local conditions and capacities to build momentum toward inclusive and universal WASH coverage. Through strategic partnerships, financial mobilization, and innovative methods, the Project has set an example for sustainable development initiatives. By leveraging the systems approach, RANO WASH has positioned government stakeholders, businesses, and communities to create long-term improvements in Madagascar to promote enhanced WASH services as well as more inclusive and equitable communities.

Table 1 below summarizes growing progress against indicators from FY 2018 to FY 2023.

Table 1. Summary progress toward key indicators[3]

Key Indicators	FY 2018		FY 2019		FY 2020		FY 2021		FY 2022		FY 2023		Life of Project (LoP)			
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Initial target	Revised target	Actual	%
# of people gaining access to basic drinking water services	22,000	-	60,100	5,363	52,500	37,180	101,616	56,055	89,122	55,736	55,666	18,183	**210,000**	**210,000**	**172,517**	82%
# of people gaining access to safely managed drinking water services	16,500	-	18,030	2,159	20,000	10,897	47,511	32,281	36,270	11,508	33,155	82,035	**90,000**	**90,000**	**138,880**	**154%**
# of people gaining access to a basic sanitation service	45,000	-	4,500	20,524	25,000	56,113	22,800	166,075	100,000	122,955	-	61,176	**94,500**	**362,712**	**426,843**	**118%**
# of people gaining access to a limited sanitation service	ND	NA	30,000	39,704	70,000	95,191	116,212	74,506	30,000	86,649	-	19,601	**280,500**	**264,401**	**315,651**	**119%**

[3] 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 and redesign_chart_JMP_JUL2017_3-02-e1501763782601.png (627×1357) (unwater.org)

Key Indicators	FY 2018		FY 2019		FY 2020		FY 2021		FY 2022		FY 2023		Life of Project (LoP)			
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Initial target	Revised target	Actual	%
# of institutional settings gaining access to basic drinking water services as a result of USG assistance	20	-	25	20	76	53	90	42	96	107	-	26	**211**	**211**	**248**	**117%**
# of communities verified as ODF as a result of USG assistance	150	56	600	624	1,050	1,386	887	1,523	1,360	Outcome	-		**2,500**	**5,429**	**5,543**	**102%**
# of communes certified as ODF as a result of USG assistance	-	-	-	-	-	4	19	18	34	55	-	8	**53**	**68**	**85**	**125%**

1.3 SUSTAINABILITY OF RANO WASH OUTCOMES

The RANO WASH project was deliberately framed according to a systems-strengthening approach (Figure 3), with the understanding that ensuring sustainability for WASH services – those directly catalyzed by RANO WASH investments as well as WASH services nation-wide – would require strong and capable WASH systems, including policy frameworks and coordination mechanisms, capable and motivated public and private-sector actors at all levels, informed planning and decision making, improved access to finance, and a deliberate focus on gender-equity and social inclusion.

Figure 3. RANO WASH systems strengthening approach and WASH System Building Blocks (adapted from WaterAid)

The RANO WASH Final Evaluation sought to examine the extent to which the RANO WASH outcomes could be expected to be sustained and scaled by communes, private sector and local coordination mechanisms after the project end.

The below is a brief summary of outcomes under RANO WASH that suggest potential for the sustainability and scale of WASH services achieved under RANO WASH – as identified in the final evaluation. Section 3.6 provides more details on the factors that contribute favorably to the sustainability of water, sanitation, and hygiene outcomes achieved under RANO WASH:

- Increased collaboration between the public and private sectors in water supply, management and service delivery, as demonstrated by 40+ operational PPPs currently providing services.
- Significantly increased planning, budgeting, and monitoring capacities of commune governments in RANO WASH intervention regions, as demonstrated by WASH sector development plans and increased public WASH budgets.
- Increased coordination and active coordination mechanisms between national, regional, and commune governments and communities – including STEAH, SRMO, and SLC.
- Stronger WASH service providers and demonstrated business incentives to sustain and scale water services.

- Stronger local actors and businesses, reinforcing WASH behaviors and making sanitation and hygiene products more readily available.
- Households and small businesses have increased access to finance to enable purchases of WASH products and services

1.4 Lessons Learned and Recommendations

This larger report also describes challenges, lessons learned, and recommendations for the WASH Sector based on RANO WASH's experience. Sections 4 and 5 of the report describe granular challenges, lessons and recommendations in an attempt to convey actionable recommendations to assist future WASH programs.

A short selection of high-level lessons learned are included in this Executive Summary, below:

Using a system strengthening approach, and strengthening WASH governance at all levels were critical to success. Using a systems approach helped the RANO WASH program and key WASH sector stakeholders to simplify and identify the multiple dimensions of change within the WASH sector, and ensure attention to critical systems components that might otherwise be overlooked – including strengthening monitoring capacities and functions, strengthening accountability mechanisms between local government and communities, and increasing public revenue generation and public WASH budgets at the commune level. The RANO WASH team attributes this systems approach to exceeding project targets, and achieving greater impact than the project could achieve directly, by enabling and strengthening capacities within the broader set of actors, including service providers and service authorities at all levels, to plan, budget, scale, and sustain WASH services. However, embracing a systems approach signified a paradigm shift for the WASH sector in Madagascar, and required significant front-end investment as well as ongoing time and budget to help project staff, government teams, and stakeholders apply principles and tools to their day-to-day work.

Working with MEAH teams required a creative and flexible approach to capacity building. The transformation to a WASH systems approach had to start with the MEAH, as the primary entity overseeing the sector. The RANO WASH team's capacity building plan and strategy for the MEAH and DREAH improved knowledge and resources through use of trainings and workshops, ongoing coaching and supportive supervision, equipment and financial support (i.e., co-financing consultants for sector plan), toolkits and other guidance documents, pause and reflect sessions, joint outreach to banks and financial institutions, and other opportunities for MEAH leadership like webinars and WASH Fairs. The capacity plan was revisited during each of the three government changes to engage with new government teams in defining priorities and contribution to the road map for the sector. This created a culture of mutual support between the project and the MEAH and DREAH teams and inspired government leadership and commitment, strengthened awareness of sector issues in Madagascar (e.g., private sector engagement, sustainability, and sanitation), clarified roles and responsibilities both within the MEAH and between line Ministries, and led to significant changes in the MEAH

> *"Taking a systems approach and strengthening commune leadership were both really important to success, but also crucial was establishing a culture of learning and adaptation within the RANO WASH team. Team members were able to experiment, innovate and ask, "what strategies are working, and how can we adapt?" We encouraged regular reflection and exchange between regions and stakeholders, and discussion of both successes and failures."*
> Harisoa Rasamoelina, RANO WASH Senior Behavior Change Advisor

and DREAH teams' capacity to lead sector functions and provide support and monitoring to communes.

Private-sector actors are important WASH actors, and the WASH sector must recognize them as such. This has required a paradigm shift at all levels, to recognize businesses as dynamic actors that contribute to universal access to WASH through specific business models in WASH-related value chains and in providing products and services, and to ensure communities and service authorities understand their respective roles and the benefits and accountabilities of paid services. This has also required a greater focus on selection of and capacity strengthening for WASH service providers, particularly business and marketing capacities, to ensure effective business models that shorten time to profit and enable scale. The RANO WASH project proved the potential of PPPs as an instrument for the GoM to expand water services and close access gaps and tested and scaled the required investments in governance and business management to keep services permanent and accountable.

Behavior change at scale required thinking beyond project boundaries and taking an adaptive approach. RANO WASH significantly exceeded sanitation targets, by learning alongside key stakeholders and making multiple adjustments throughout the course of the project. RANO based its behavior change strategy on formative research and addressed key behavioral drivers, responded to and re-considered limited and basic sanitation preferences demonstrated by communities, developed and tested new products and MBS approaches with iDE, strengthened regional learning and coordination around behavior change approaches, and sought to enable the GoM (communes and the MEAH) to better reach ambitious "Clean Madagascar" campaign goals. This required thinking beyond standard approaches and encouraging learning and adaptation within and outside of the project.

> *"It was important that the RANO WASH team think bigger than just achieving open defecation free status in project communities, and ask "How can we help commune governments contribute to the bigger objectives of the Clean Madagascar campaign?" Once we worked to strengthen commune leadership and planning capacity to demonstrate gains towards this national objective, access to sanitation started to increase widely."*
> Avo Ratoarijaona, RANO WASH Deputy Chief of Party

1.5 Structure of the Report

This report is divided into six sections:

Section 1 is an executive summary;

Section 2 gives an overview of the WASH context in Madagascar and presents the Project;

Section 3 assesses the progress made toward accomplishing the Project objectives and gives an overview of the Monitoring and Evaluation Plan and Gender and Social Inclusion activities;

Section 4 summarizes the challenges faced during the Project;

Section 5 gives recommendations for future programming, and

Section 6 provides an overview of the Project and financial management.

An index of all reports and information products developed over the project implementation period is provided in Annex 1.

2 CONTEXTUAL OVERVIEW

2.1 WASH PROBLEM STATEMENT IN MADAGASCAR

Madagascar faces some of the worst water and sanitation issues in the world, making it unlikely to achieve universal access to WASH services by 2030. Only 35 percent of the population has access to improved water sources and just 10 percent use basic sanitation facilities.[4] According to the World Bank, access to water and sanitation in Madagascar suffers from deep inequalities and low-quality services that are vulnerable to extreme weather events.

Madagascar ranks at the bottom of the list of 76 developing countries with the least access to basic sanitation. The Joint Monitoring Program has found that 65 percent of Madagascar's rural population has no viable source of drinking water, 81 percent lacks access to improved sanitation facilities, and 52 percent practice open defecation.

Rapid population growth between 1990 and 2015 increased the number of people who practice open defecation by 65.2 percent, thus exacerbating the risk of fecal–oral contamination and exposure to environmental enteropathy. 90 percent of the poorest quintile of the population lives without access to an improved source of drinking water, and less than 1 percent of the poorest quintile of the population owns a hygienic latrine.[5]

At its inception, the Project conducted a gender analysis which identified the main challenges to gender equity in Madagascar: entrenched gender norms, underreporting of intergender violence, failure to enforce legislation aimed at reducing inequity, and underrepresentation of women, young people, and individuals with disabilities in decision-making roles. It also indicated that women, girls, young people, and people with disabilities face especially stark disparities in resource allocation and limited job opportunities. Moreover, the analysis made it clear that these factors are major obstacles that hinder women, girls, and disabled individuals from accessing crucial WASH services such as clean drinking water, adequate latrines, hygiene products, and menstrual hygiene support.

The challenges to accelerating and expanding the use of improved and sustainably managed WASH services are threefold: weak governance, monitoring, and management capacity; weak private-sector WASH supply; and unhealthy behaviors and low demand for WASH services.

2.2 SUMMARY OF THE RANO WASH PROJECT

The RANO WASH project in Madagascar was a six-year project funded by USAID from 2017 to 2023.[6] Cooperative for Assistance and Relief Everywhere Inc. (CARE) manages the RANO WASH consortium with core partners CRS, WaterAid, BushProof, and Sandandrano, alongside a broad range of resource partners.

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 across seven high-priority regions: Alaotra Mangoro, Amoron'i Mania, Atsinanana, Haute Matsiatra, Vakinankaratra, Vatovavy, and Fitovinany. To achieve these goals, the Project is developing a systematic partnership with national and regional governments, water and sanitation institutions, communities, private-sector actors,

[4] MICS, 2018.
[5] National Millennium Development Goal monitoring survey in Madagascar, 2013.
[6] In November 2021, USAID approved a 12-month no-cost extension until June 15, 2023.

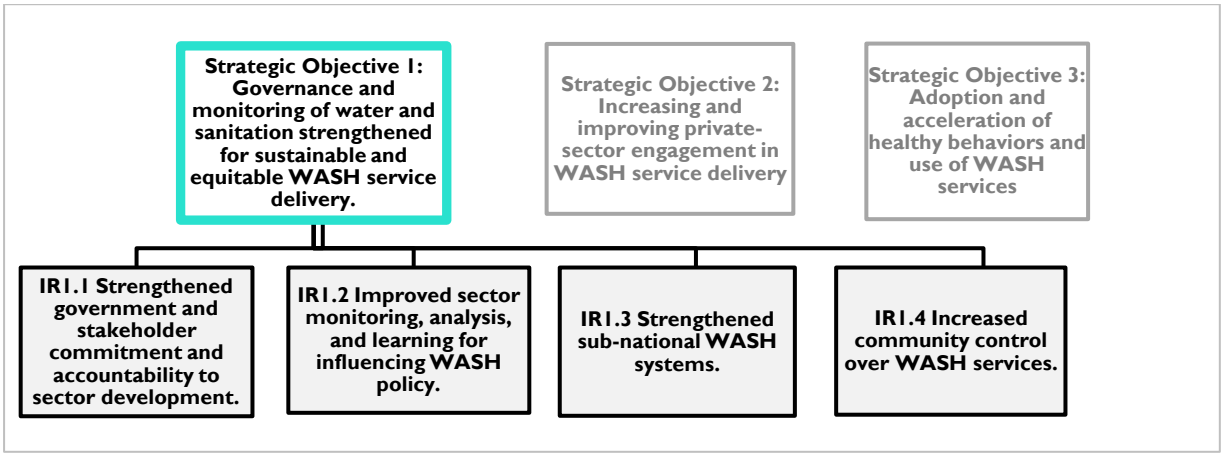
CSOs, and beneficiaries. The Project aims to implement a strategic set of mutually supporting activities that contribute to four interlinked strategic objectives, with gender and social inclusion as a cross-cutting component:

1. **Strengthen governance and monitoring of water and sanitation for sustainable and equitable WASH service delivery.**
    - Strengthen government and stakeholder engagement and accountability for sector development.
    - Improve sector monitoring, analysis, and learning to influence policy.
    - Strengthen sub-national systems at the commune level to facilitate inclusive planning and improved sector coordination.
2. **Increase and improve private-sector engagement in WASH service delivery.**
    - Improve WASH products, technologies, services, and business models.
    - Improve the design, construction, and management of WASH infrastructure.
    - Strengthen technical and business skills of private companies in the WASH sector.
3. **Promote the adoption and acceleration of health behaviors and the use of WASH services.**
    - Improve hygiene and sanitation behavior-change solutions through applied research.
    - Improve the implementation of WASH behavior change at all levels: communities, government, and the private sector.
    - Promote evidence-based WASH behavior change and hygiene promotion-sharing to influence policy and practice.
4. **Promote gender and social inclusion in all components of the RANO WASH project.**
    - Promote the engagement of men, women, and youth as decision-makers in policy spaces by strengthening responsive and gender-sensitive governance in the WASH sector to raise their voices in community-based organizations supported by the Project.
    - Engage the private sector in the provision of WASH services and products that are available and accessible to different community groups (including vulnerable groups) by promoting the economic empowerment of women and young people.
    - Implement a transformative approach to facilitate healthy behaviors and gender equity across the WASH sector to increase gender equality and social inclusion in households and communities.

Picture 1. A Sip of Happiness. Tasting clean water for the first time gave this 13-year-old immense joy. March 2023. Picture selected as a winning photo for the Strategic Objective 2 category in USAID's 2023 Water-Secure World Photo Contest on Global WATER about USAID's vision of a water secure for all. Photo credit: Razaka Rafenomanana Dahery, RANO WASH.

3 PROJECT IMPLEMENTATION AND RESULTS

3.1 STRATEGIC OBJECTIVE 1: GOVERNANCE AND MONITORING OF WATER AND SANITATION STRENGTHENED FOR SUSTAINABLE AND EQUITABLE WASH SERVICE DELIVERY



KEY ACHIEVEMENTS

- **Since 2020, SRMOs** in the seven intervention regions have **strengthened collaboration between regional actors,** and support from the MEAH's Projects and Partnerships Coordination Unit has **re-energized sector discussions at the national level,** including the annual review in December 2021, a national coordination meeting in July 2022, and the national WASH Fair in December 2022.
- RANO WASH surpassed its goal of an 86 percent completion rate for **commune updates** to the national WASH monitoring system (**SE&AM**), achieving **97 percent** by the end of the Project. The migration of the system to DHIS2 is now operational, allowing updates via tablets for communes and private operators.
- **223 communes have a WASH development plan (PCDEAH),** and 246 communes benefit from communal WASH support through **STEAHs**.
- **2,652,656 USD** was **mobilized for WASH services,** with **148 communes** engaging with the private sector. Additionally, **173 communes have costed 2022 PCDEAHs** for an estimated total budget of USD 496,000.
- **221 WASH-CSOs (147 percent of target) supported by the Project are currently operational**. These CSOs protect the rights of WASH service users through accountability mechanisms and dialogue forums. **231 communes have accountability mechanisms** that community, authorities, and service providers use to improve WASH services.

SNAPSHOT

Mandialaza mayor's dedication to promoting access to safe drinking water

Mr. Rabenandrasana proactively engaged with other mayors working with RANO WASH to explore the PPP model for water services, although Mandialaza was not one of the 250 RANO WASH intervention communes

Mr. Rabenandrasana, Mayor of Mandialaza Commune

Mr. Rabenandrasana, Mayor of Mandialaza since 2010, is well respected for his commitment to improving the well-being and health of his constituents. One of his main priorities has been ensuring their access to clean water. Currently, the water system in Mandialaza was managed by a volunteer-based committee, but it is over ten years old, and the system did not meet the needs of the population. During the dry season, there was a shortage of water, and the quality was also poor. This means that residents must line up from 4 a.m. every day for limited water, and some were forced to resort to unsafe sources like rice or crop fields.

Mr. Rabenandrasana sought technical support from RANO WASH to upgrade Mandialaza's water system using a PPP model. He connected with Enterprise Rano An'Ala B's, who submitted an unsolicited application to become the builder, co-investor, and manager of the water systems. Within three months, the company conducted technical, socio-economic, and financial studies.

Supported by community engagement, the mayor negotiated financial contributions from both the Commune and its partners, as well as the Contractor-Investor-Manager Company, and personally went door-to-door to emphasize the positive impact of clean water on people's lives and health. He rallied support from economic operators, associations, NGOs, the Catholic Church, and the people of Mandialaza to secure funding for the drinking water project. Throughout the process, RANO WASH—alongside the DREAH—supported the mayor and Rano An'Ala B in procuring, contracting and managing the PPP, including technical studies, financing, contractualization, construction work, and organizational setup to ensure the water system's smooth operation. The total cost for the water systems was MGA 340 million, with MGA 61 million contributed by Rano An'Ala B and the remainder by the Commune's partners.

With a population of 17,500 across nine fokontany, more than 5,000 individuals in three fokontany—including the chief town of Mandialaza, Fiherenana, and Ambomiarimba—now enjoy safe water services.

But Mayor Rabenandrasana's efforts did not end there. He also persuaded Rano An'Ala B to extend services to the Amborimborina fokontany. He is adamant: "I will not stop until all nine fokontany are served and have access to drinking water services." Furthermore, as of April 2023, the mayor was in the final stages of negotiations to secure rural electricity service for the Commune of Mandialaza.

IR 1.1 Strengthened Government and Stakeholder Commitment and Accountability to Sector Development.

STRENGTHENED SECTOR COORDINATION AND LEARNING MECHANISMS AT ALL LEVELS

Based on the final evaluation report by RANO WASH, coordination in the WASH improved over the course of the Project. Prior to the Project, the national WASH coordination mechanism was not functional—as reflected during a stoplight evaluation (red indicates low score). By the end of the Project, technical and financial support as well as coaching efforts raised the MEAH's leadership and re-dynamized national coordination to the yellow level. This signifies a remarkable improvement in the functioning of the national WASH coordination mechanism in the face of daunting challenges.

	Baseline value	Endline value
Indicator: National body for WASH-sector coordination is operational		

Coordination at the national level has faced several setbacks as successive ministers sought new forms of coordination. From 2018–2019, the Project focused on defining the structure, roles, and responsibilities, but the coordination mechanism was inconsistent. Exchanges resumed in March 2020, focusing first on responses to COVID-19. In 2021, coordination functions increased, notably with the annual review in December 2021, the coordination meeting in July 2022, and the National WASH Fair in December 2022. The Project always supported national initiatives such as the WASH Sector Plan (FY 2018–2019), TrackFin (FY 2018), WASH-BAT (FY 2018), GLASS (FY 2018 and FY 2022), AfricaSan FY 2021, and the SWA high-level meeting (Sanitation and Water for All - FY 2021), all of which have helped strengthen national-level coordination.

As of 2023, the MEAH has yet to promulgate the framework documents developed with sector partners. Although HP+ facilitated the development of the national WASH Policy, validated in 2021 by sector stakeholders, the MEAH did not succeed in turning it into law. UNICEF developed the WASH Sector Plan (PSEAH) in FY 2018–2019, but the Ministry suggested suspending the study pending validation of the national WASH Policy and development of the national WASH Strategy. The sector is expected to make major efforts to validate and operationalize these plans in the future.

At the regional level, RANO WASH supported the DREAHs since 2019 in establishing and energizing the SRMOs (regional-level coordination structures) in the Project's intervention regions. Under the leadership of the DREAHs, these structures have played a key role in aligning stakeholders' commitments and fostering local collaborations to make progress toward regional performance targets for 2023.

Each DREAH team set up and led an annual planning, monitoring and review cycle using the SRMOs. Joint annual planning processes occurred during the first two quarters of each year to identify commitments and any deviations from objectives in each region. The SRMOs also held exchange and follow-up quarterly meetings that involved various stakeholders in the WASH sector, technical services such as education, health and the environment, and regional WASH-CSOs. These were followed by annual sector reviews at the end of the year. Although some meetings included the participation of private-sector representatives, their involvement needs improvement.

SRMOs also supported regional initiatives contributing to Madagasikara Madio, the GoM's plan and targets to eliminate open defecation nationwide by 2030. Each SRMO established objectives and actions for their respective region, actively involving regional entities in mobilizing districts and communes in support of these regional commitments. Coordination meetings also had a positive impact on the water, hygiene and water resources management sub-sectors, including promoting exchanges between the Ministère de l'Environnement et du Développement Durable (MEDD) and WASH stakeholders for the protection of water resources. SRMOs also facilitated coordination during the COVID-19 period. DREAHs in RANO WASH intervention regions drew up COVID-19 contingency plans for WASH and coordinated and monitored member activities at local level.

This collaboration and coordination encouraged initiatives to develop the sector (ODF commune competitions or VSLA WASH model competitions), the organization of world WASH days, and discussions on drinking water challenges in urban cities. The SRMOs helped the DREAHs to reflect on how to adapt approaches from various programs for use in areas not covered by partners and to influence the design of new projects in the region. According to the RANO WASH Final Evaluation report, the DREAHs are actively coordinating the WASH sector at the regional level thanks to the SRMO and have made improvements to the Service Technique Eau, Assainissement, et Hygiene (STEAH) training curricula.

SRMOs also facilitated coordination during the COVID-19 period. DREAHs in RANO WASH intervention regions drew up COVID-19 contingency plans for WASH in addition to coordinating and monitoring member activities at the local level.

WASH Systems Approach Focal Points active at MEAH level

RANO WASH and the MEAH created and trained a network of WASH System Focal Points to promote understanding of systems approaches. The focal points helped DREAHs strengthen their understanding and use of systems approaches, leading governance analysis sessions in the seven intervention regions. They encouraged stakeholders to take a holistic view of the WASH system, analyzing the root causes of delayed progress or limited sustainability of services to create an action plan for annual and continuous sector strengthening. Each DREAH analyzed WASH system factors and players during regional sector reviews, and the MEAH used the matrix to inform its National Annual Review in December 2021.

The systems-strengthening training tools used by the Ministry are available on the RANO WASH website.[7] Other tools, such as WHO's GLASS reports and UNICEF's WASH-BAT results, complement sector tools. This represents a significant change in mindset toward systems-wide approaches and using them to tackle challenges in delivering sustainable and equitable WASH services.

Increased capacity to assess WASH financial needs

Since 2018, the MEAH has used yearly financial models, specifically Program Budgets by Regional Objective (BPORs) of the 22 regions as well as Program Budgets by National Objective (BPONs). The regions use BPOR/BPON tools to plan annual interventions, provide advice to new stakeholders in the region, and develop a business case to present at the SWA High-level Meeting in FY 2021. Additionally, the tools now help translate annual financial requirements at the regional level to achieve sector performance contract targets for 2023.

These tools are complemented by the "Life Cycle Costing," a tool for planning investments and resolving financing requirements to achieve universal access to water by 2030. At the

[7] https://care.mg/ranowash/gouvernance-et-suivi-du-secteur-eau-assainissement-et-hygiene/

MEAH level, "Life Cycle Cost" focal points analyze costs required for universal and sustainable access at the commune level. These focal points trained DREAHs and supported six communes for two years with the tool. The WHO conducted Phase 1 of TrackFin in FY 2018 to provide financial flows in the WASH sector. RANO WASH supported the validation and popularization of the study's results. WHO is currently implementing Phase 2 of TrackFin. These efforts have resulted in increased budgets and allocation for WASH in RANO WASH's intervention communes, as well as more timely expenditures. The government is also making an effort to increase the WASH budget at the national level.

IR 1.2 Improved Sector Monitoring, Analysis, and Learning, Influencing Policy

SE&AM STRENGTHENED AND EXTENDED

In 2018, RANO WASH helped launch the updated version of Madagascar's SE&AM national WASH monitoring system. This system provided data at all administrative levels on WASH service access rates, infrastructure availability, gaps in WASH services, financing needs, communal and regional priorities, and hydrology mapping. This was the first time that the GoM had comprehensive information for all fokontany in Madagascar. After six years, the GoM can lead and access reliable and timely sector data at multiple levels, which contributes to effective planning, monitoring, and evaluation of sector performance.

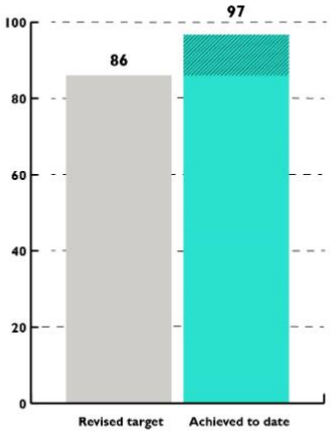
> *"I am very pleased to see that high-level decision-makers at the national level have detailed information about us."*
> – Mayor of Belavabary during a 2018 SE&AM meeting

RANO WASH also provided technical and material support (e.g., equipment provision) to MEAH and seven DREAHs to process and upload SE&AM data online. Since then, MEAH staff have developed additional modules in the SE&AM system, including waste management monitoring, mapping of major projects identified by the Ministry, and monitoring of the Ministry's internal projects.

RANO WASH worked with the MoWASH DSI (Office of Information Systems) team using the District Monitoring Assessment Tool (DiMat) developed by WaterAid to identify necessary changes and strengthening needed to make SE&AM an effective and functional monitoring and evaluation system. These assessments guided the improvements for the SE&AM upgrade in 2021–2022.

In 2022, RANO WASH supported the MEAH to develop the *WASH Sector Monitoring & Evaluation Manual*. This manual established a clear framework for the WASH Monitoring & Evaluation system. The Project then helped MEAH align the SE&AM with the manual, integrating all information from the old version and other data sources, including the 2018 General Population and Housing Census (RGPH3) and the results of the 2018 MICS survey. With the Project's assistance, MEAH mobilized stakeholders to update and validate the system. DHIS2 was adopted as the core system, allowing access to user-friendly functionalities such as customized dashboards, smartphone data updating, and integration of infrastructure photos. The SE&AM is now a working tool for MEAH staff, improving data for decision-making and informing new framework documents such as national WASH strategies and plans.

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



113%

In the Project's final year, the new system was rolled out in the seven project regions, while other partners, such as the World Bank, supported its roll-out in the southern regions of Madagascar. The Ministry is currently exploring the possibility of extending the updated SE&AM to all remaining regions of Madagascar.

At local level, RANO WASH helped 250 target communes systematically update the SE&AM. By the end of the Project, 97 percent of these communes regularly updated data in the system. RANO WASH also tested smartphone updates using mWater in 51 communes at the Project's start. When RANO WASH supported MEAH to upgrade SE&AM in 2021, we analyzed together the appropriate platforms for the WASH sector. And MEAH chose DHIS2 and did not continue with mWater. RANO WASH then equipped and trained the 250 intervention communes to update the SE&AM by smartphone using DHIS2. Additionally, in FY 2022, the Project encouraged private water operators supported by RANO WASH to update SE&AM and integrate project data into the system in the seven intervention regions.

ESTABLISHING A LEARNING CULTURE IN THE WASH SECTOR

RANO WASH supported the MEAH in better leveraging sector events for exchanges and learning among stakeholders. This improved platforms and mechanisms for sector dialogue and learning. Events included national sector reviews, World Water Day, World Water Week, and regional and national fairs, which attracted a diverse range of MEAH partners and stakeholders. These events drew a wide range of MEAH partners and stakeholders, including partner ministries, WASH-sector projects, WASH-CSOs and private-sector actors, and provided regular opportunities to discuss best practices and accountability toward WASH goals. The Project also shared its experience during these events, covering themes such as communal project management, mobilizing local financial resources for the WASH sector, PPPs, behavior change strategies, and gender and social inclusion in the WASH sector.

> "We have succeeded in obtaining funding for seven PCDEAH by the Ambatovy project in the Atsinanana region, drawn up by RANO WASH since the Project's withdrawal from our region. These APSs and APDs, accessible on the RANO WASH website, will enable us to attract other players to invest in our region," *declared the DREAH of Atsinanana at RANO WASH's closing ceremony in April 2023.*

RANO WASH also initiated various online and face-to-face events to share the approaches and tools developed and proven. For instance, we participated in international events such as All Systems Go Africa, All Systems Connect, and the University of North Carolina's Water and Health Conference to showcase Madagascar's achievements.

The SRMO facilitated sharing and exchanging lessons learned and approaches at the regional level. RANO WASH and stakeholders used quarterly meetings to share information, notably during regional sector reviews, which provided an opportunity for stakeholders to share "game-changers" for accelerating access to water, sanitation and hygiene.

RANO WASH inventoried and organized tools at the regional level and uploaded these to the Project website,[8] to serve as a publicly available resource library for regional and commune governments and other stakeholders. These tools included governance tools,[9] toolkits for PPP,[10] tools and research results on behavior change,[11] gender mainstreaming in the WASH sector,[12] as well as various resources such as presentations and exchanges at RANO WASH

[8] https://care.mg/ranowash/
[9] https://care.mg/ranowash/gouvernance-et-suivi-du-secteur-eau-assainissement-et-hygiene/
[10] https://care.mg/ranowash/ppp-eau-potable/
[11] https://care.mg/ranowash/changement-de-comportement-et-utilisation-de-services/
[12] https://care.mg/ranowash/genre-et-inclusion-sociale/

capitalization events in October 2022. The Project also developed a compendium for its tools and approaches using the WASH building blocks as a framework.[13]

IR 1.3 Strengthened Subnational Systems

STRENGTHEN REGIONAL STRUCTURES TO SUPPORT COMMUNE INITIATIVES

> *"When intersectoral dialogue starts to take shape: The regional health department has raised concerns about the water quality results from the RISE project in some water supply systems in the region, and they are asking us about the measures we will take to address the situation. We are currently in discussions with the municipality and the manager to respond to the request for corrective measures expressed."*
> – DREAH Fitovinany, April 2023

Our interventions at the regional level strengthened the WASH system in two ways: (1) enhanced regional coordination structures (SRMO) to engage stakeholders in working toward a common goal to accelerate the achievement of sector objectives, and (2) activated support functions of regional technical teams (DREAH) to improve the capacity of commune governments in expanding and managing access to WASH.

To achieve this, RANO WASH initially provided support to three regions/DREAH teams in FY 2018 (Alaotra Mangoro, Atsinanana, and Vatovavy Fitovinany). This support was then extended to the Vakinankaratra region in FY 2019, and the Haute Matsiatra and Amoron'i Mania regions in FY 2020. In 2022, the Vatovavy Fitovinany region was split into two, increasing RANO WASH's interventions to seven regions. Although both Vatovavy and Fitovinany regions now have their own regional directors and teams, the DREAH team was not split during implementation. As a result, even though support was provided to both regional directorates via the one DREAH team, results are reflected in only six of the seven regions, as explained below.

The SRMOs in six of the seven intervention regions are operational and led by the DREAH. As a result, the coordination of stakeholders and initiatives in six RANO WASH intervention regions is better structured with annual performance objectives (performance contracts), an annual joint planning session, a regional joint sector review process, and continuous dialogues (once or twice per quarter) among sector stakeholders and related decentralized services (e.g., health, education, environment). These points are detailed in section IR 1.1.1.

RANO WASH also supported the DREAHs in developing training tools for STEAHs and building up a pool of trainers[14] at the regional level that could cascade training to STEAHs. The STEAH training modules cover the roles and responsibilities of STEAHs, as well as the basic technical elements they need to monitor the quality of WASH services in their localities. The modules are available on smartphones, enabling STEAH to follow the courses remotely. RANO WASH covered the connectivity costs for the deployment of smartphone training for 160 STEAHs.

To build the capacities of our 250 communes, the DREAHs provided training and support in the development of WASH services. Over the course of the Project, the DREAHs trained STEAH in 240 communes; supported 223 communes in developing, reviewing and updating PCDEAH plans following training and coaching; and coached 148 communes in forging successful partnerships with the private sector. Improved regional capacity is already yielding positive results beyond the RANO WASH intervention communes. UNICEF and Ny Tanintsika in Vatovavy et Fitovinany, CRS, with the Zararano project in Atsinanana, mobilized these pools of trainers to train and coach STEAHs in communes not yet covered by RANO WASH.

[13] https://care.mg/ranowash/resource-guide-ranowash/
[14] The pool of trainers for each region is made up of DREAH technicians, responsible for providing support to the Communes.

Since FY 2020, regional departments of the Ministry of Finance and Budget (SRB) in six of our seven intervention regions have collaborated with the RANO WASH team to improve commune capacity in budgeting, expenditure frameworks, and funding streams. These collaborations included training communes on (1) commune budget development and costed PCDEAH; (2) mobilizing tax revenue; and (3) improving transparency in recording WASH expenses. Although significant progress has been made on the first two points, further efforts are still needed for the financial report, as communes are unable to codify expenditure and encounter difficulties in distinguishing budget allocations by sector—particularly WASH. These efforts have contributed significantly to increases in commune-level budgets described in IR 1.3.2. The Regional Budget Office (SRB) of the Vatovavy Fitovinany region systematically verifies the inclusion of the WASH component in the budget exercises for their communes. RANO WASH emphasizes the importance of regional institutional support and improving coordination to continue enhancing commune capacity in fulfilling their responsibilities. In addition to collaborating with the DREAH and SRBs mentioned above, partnerships were developed with the Regional Health and Education Directorates to enhance the guidance of processes related to WASH at the institutional level.

To monitor the functionality and financial accounting of water infrastructure—and inspired by the processes implemented in the Haute Matsiatra region over the past decade—DREAHs set up the Technical and Financial Monitoring of Drinking Water Services (STEFI) in six of seven intervention regions.[15] The STEFI model represents an important step toward strengthening regulation, oversight, and transparency for water infrastructure in Madagascar. As part of the STEFI process, the DREAH (1) collected the WSPs' reports, (2) processed semi-annual operating reports from WSPs, and (3) provided recommendations to address any issues. The DREAHs then organized field visits to share recommendations and monitor their implementation. RANO WASH organized exchange visits in Haute Matsiatra so the other six regions could learn from their experience and facilitated SRMO working groups in each region to adapt tools and develop action plans. See Table 2 below for STEFI status summaries by region. The regions of Vatovavy and Fitovinany worked together to help on-board the new DREAH team.

Table 2. Status of Regional STEFI Implementation

Region	Status of STEFI implementation at the regional level
Alaotra Mangoro	A cycle was completed in FY 2022 Q2 with the mobilization of 17 communes, each of which received action recommendations. Another cycle was started in FY 2022 Q4; the questionnaire was improved and rolled out to communes for data collection. DREAH is awaiting results from communes.
Amoron'i Mania	DREAH received STEFI data results from two RANO WASH systems managers, and is currently in the process of analyzing that data. Recommendations will be sent to systems managers to improve the water systems. DREAH plans to send the template to other systems managers with the goal of scaling up the process. They also recommend simpler templates for community-managed systems.
Atsinanana	The DREAH team has already communicated recommendations from STEFI data results analysis to commune system managers. The DREAH team are currently sending letters to follow up on such recommendations, and they plan to convene each commune and system manager to discuss how to further improve their water systems both technically and financially.
Haute Matsiatra	One cycle was completed with restitution for 117 water systems across 30 municipalities during FY 2022 Q2. Presentation of 12 commune-level STEFI results was held from April to September 2022, with recommendations provided to all relevant stakeholders.

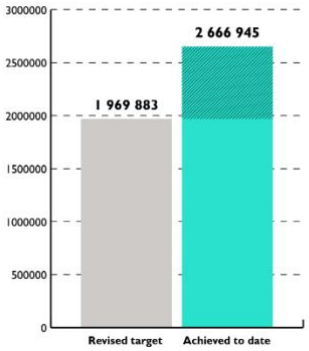
[15] In Madagascar, there are two STEFI models. For the first, developed in Haute Matsiatra, STEFI is a function of the DREAH; for the second, developed in Atsimo Andrefana, an external entity provides STEFI in return for remuneration.

Region	Status of STEFI implementation at the regional level
Vakinakaratra	During FY 2022 Q3, the first restitution of the technical and financial monitoring analyses 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.
Vatovavy and Fitovinany	Six of the 15 targeted system managers transferred their reports to the DREAH office following the DREAH team field trip. This field visit aimed to verify the managers' challenges and mobilize them to develop and submit their reports. The manager of the five other systems still requires close support from DREAH to complete the template; the four remaining systems are new and will soon integrate the process.

STRONG COMMUNES TO DELIVER WASH SERVICES THAT MEET COMMUNITY NEEDS

Throughout the six-year project, the 250 intervention communes gradually strengthened their WASH systems, leading to an improvement in access to quality and equitable WASH services.

Value of new funding mobilized to the water and sanitation sectors as a result of USG assistance



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The RANO WASH Final Evaluation highlighted the important role of commune-level governments in the WASH ecosystem. By making communes central actors in the Project, sustainable outcomes were achieved as they will continue to engage with other stakeholders, including the private sector, to enhance access to WASH services even after the Project close-out.

Currently, 97 percent of communes of the 174 communes that submitted budgets for 2022 have a WASH budget. Over the last three years, the WASH budgets at the communal level have steadily increased. At the end of the Project, 146 of the targeted 80 communes increased their WASH budgets, and the total WASH budget for all these communes in 2023 is MGA 2.116 billion (USD 492,000). Initially, most communes did not have a clearly defined WASH component in their budgets, but with the Project's support, they have started securing funding from other partners at the commune level to supplement their financing through in-kind contributions financed by communes and potential participation from other partners. The Final Evaluation showed a significant increase in the number of communes with WASH budgets across all regions between 2019 and 2020; most notably, 100 percent of Haute Matsiatra's communes had a WASH budget in 2021.

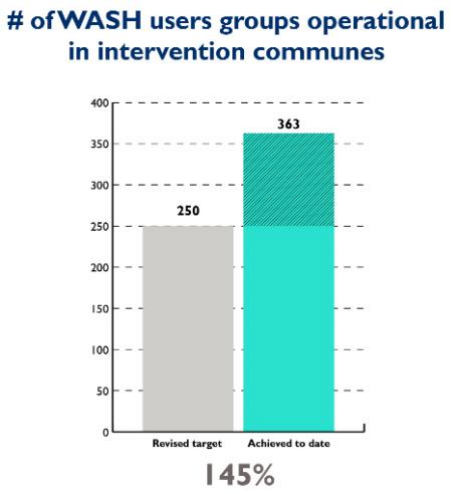
A total of 148 communes established partnerships with private operators to accelerate WASH access, surpassing the Project's target by 141 percent. This includes delegating the management of drinking water systems to private operators through a PPP model, collaborating with local masons or seamstresses to improve household and institutional access to latrines and increase women's access to reusable hygienic pads, and rehabilitating water points.

> *"Thanks to the implementation of the training conducted by the SRI (Regional Tax Service), it is the first time since the creation of the municipality that we have achieved an 85 percent tax revenue collection rate. This has allowed us to provide investments for each fokontany from the municipality."* – Mayor Androy, Haute Matsiatra Region, 2021

IR 1.4 Increased Community Control Over WASH Services

CIVIL SOCIETY ORGANIZATIONS COMMITTED TO QUALITY, INCLUSIVE AND SUSTAINABLE WASH SERVICES

The Project aimed to support communal civil society organizations (CSOs) involved in the WASH sector. The goal was to empower communities to demand and respect their rights related to WASH services. CSOs acted as watchdogs to ensure access to high-quality WASH services while also engaging in dialogues with authorities to further improve services.



CSOs played a crucial role in: (1) empowering communities to demand and respect rights related to WASH services; (2) engaging communes and WASH service providers to respond to community demands and feedback regarding service quality; and (3) mobilizing communities to participate in improving WASH services, enhancing their understanding of community responsibilities, and sharing messages and directives from authorities or service providers.

By the end of the Project, 363 service user groups were operational, exceeding the original target of 250. These groups consisted of 226 communal networks of CSOs and 137 Associations of Users of Drinking Water Supply Systems (ASUREP).

> *"Thanks to the dialogue within the Local Consultation Structure (SLC), we were able to advocate with the executive to establish an action plan to make Kelilanina commune ODF."* – OCS-EAH Member in Kelilalina, Vatovavy Fitovinany Region, 2021. (The Commune achieved ODF status in 2022.)

CSO-led advocacy and community mobilization efforts brought increased budget allocation for WASH at the communal level. These efforts included the successful development and operationalization of communal plans to reach ODF status, improved waste management practices, increased access to latrines in administrative establishments, protection of water resources, improved sanitation in public markets, and responsive handling of grievances by authorities and service providers. Additional quick wins achieved by project-supported CSOs can be found on RANO WASH's website: https://care.mg/ranowash/governance-et-suivi-du-secteur-eau-assainissement-et-hygiene/.

To achieve these results, RANO WASH implemented the following activities during the Project:

- **RANO WASH advocated with national and regional WASH-CSOs to strengthen their presence in our intervention communes.** The development of WASH-CSO presence at the communal level entailed supporting existing associations and organizations already working at the community level to diversify their interventions to include WASH activities. The Project developed a mapping of local associations or organizations and facilitated dialogues to generate interest. Then, the RANO WASH Field Agent provided training and coaching and set short- and medium-term action plans.

- **RANO WASH, in collaboration with national and regional WASH-CSOs, strengthened the capacity of communal WASH-CSOs** by educating the community about human rights and conducting diagnostics to assess whether these rights are being respected at the local level.
- **RANO WASH, in collaboration with national and regional WASH-CSOs, strengthened the capacity of communal WASH-CSOs to undertake advocacy activities with quick wins,** providing coaching to achieve these rapid gains at least once every three months.
- **In collaboration with national and regional WASH-CSOs, RANO WASH supported WASH-CSOs in conducting annual self-assessments of their profiles** (i.e., their strengths and weaknesses in relation to their roles and responsibilities, and systematically developing improvement plans).
- **RANO WASH also supported the national and regional WASH-CSOs in developing tools to track the evolution of communal WASH-CSOs** in addition to providing training and coaching.
- **Alongside supporting communal WASH-CSOs, RANO WASH supported revitalizing or establishing Associations of Users of Drinking Water Supply Systems (ASUREP).** Part of the communal WASH-CSOs, ASUREP members specialize in advocating for the rights of water service consumers.

ACCESSIBLE ACCOUNTABILITY MECHANISMS FOR SMOOTH COMMUNICATION AMONG COMMUNES, SERVICE PROVIDERS AND SERVICE USERS

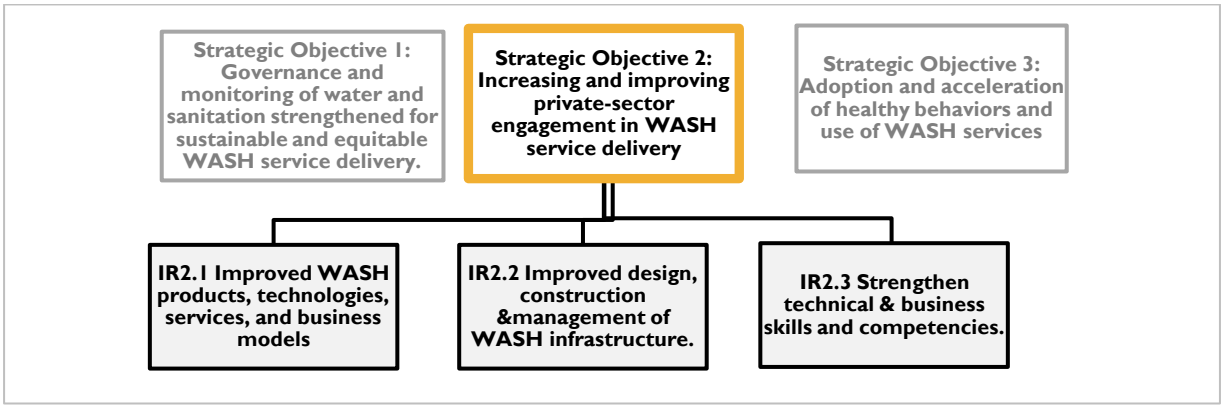
At the conclusion of the Project, 231 communes had effectively established an operational accountability system, surpassing the goal of 200. Additionally, 245 Local Consultation Structures (SLCs) facilitated communication and collaboration among stakeholders within the community, including communities, service providers, and government authorities. These platforms encouraged local discussions on the quality and expenses of services, and motivated communes and service providers to fulfill their duties. The RANO WASH website provides examples of this responsiveness: https://care.mg/ranowash/governance-and-monitoring-of-water-sanitation-and-hygiene-sector/.

Picture 2. Ranaivo Finoana Charles is a very active Fokontany Chief of Ambila Lemaitso in the Atsinanana region. The idea box on his right allows him to hear communities' voices to improve water services and ensure good management of services

To achieve these results, RANO WASH provided the following support:

- **Collaboration with the Ministry of Interior and Decentralization (MID) to revitalize and operationalize the Local Consultation Structures (SLCs).** Criteria considered include official approval of the structure validated by the district, establishment of internal regulations, a consultation action plan, and evidence of active discussions. The Project worked with the MID and the district staff to train and coach the SLCs.
- **Coaching and supporting the STEAH to mobilize SLCs for periodic discussions on WASH challenges at the commune level**. As members of the SLCs, WASH-CSOs often raise issues related to the respect of human rights to water and sanitation as entry points for discussion.
- **Training and coaching communes and CSOs to establish accountability mechanisms**, maintain a complaint register and track follow-up actions taken by the concerned parties.
- **Monitoring STEAHs** to ensure the regularity and effectiveness of the process and measures taken.

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



Key Achievements

- RANO WASH reached a total of **311,397 people with access to basic or safely managed water**, exceeding its Life of Project (LoP) objective of 300,000 (**104 percent of target**).
- The Project reached a total of **138,880 people with access to safely managed drinking water services**, exceeding its LoP objective of 90,000 (**154 percent**) and 172,517 out of 210,000 people (**82 percent**) with access to basic drinking water.
- **192 WASH service providers issued loan products for investment in WASH services**, representing 106 percent of the LoP target of 181.
- **21 WSPs managing 65 operational water systems** benefited from technical and/or financial support from the Project.

IR 2.1 Strategic Development and Innovation for Private-Sector Engagement in WASH Service Provision

Drinking Water Services Implementation: A Multi-Step Process

During the Project's initial stages, RANO WASH set higher targets for basic drinking water services than for safely managed services due to the prevalence of shared water points in rural areas. However, implementation revealed that households showed a greater preference for private water connections than had been anticipated. After six years of implementation, a total of 311,397 people gained access to water services with the support of USG assistance. Of these, 172,517 people (out of 210,000 targeted) gained access to basic drinking water services and 138,880 (out of 90,000 people targeted) adopted safely managed drinking water services.

Figure 4 below illustrates the progress made toward the Project's targets, demonstrating exponential growth in water users over the course of the Project, and highlighting the impact of iterative learning and strengthened capacities on water user coverage. Notably, FY 2023 saw the greatest growth in beneficiaries despite comprising only six months of project activities.

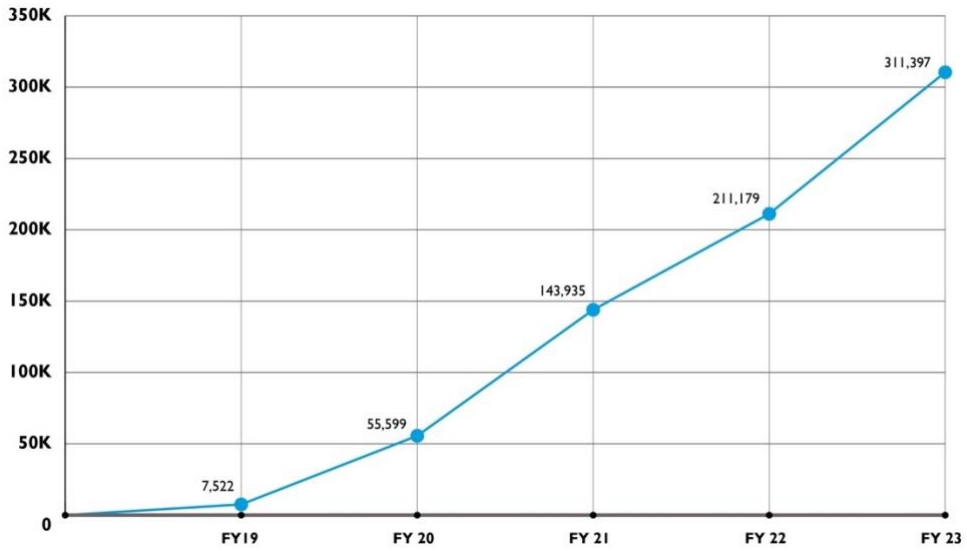


Figure 4. Water Users Evolution FY 2019–2023

Over the course of the implementation period, the Project overcame many challenges; these trials only strengthened collective learning and helped inform the Project's refined approach. Toward the end of the Project, the number of water users increased significantly due to the implementation of four critical sub-processes and lessons learned.
These processes are detailed below and summarized in Figure 5.

1. **Operational water systems that routinely ensured compliance with environmental**[16] **and water quality standards from the national to the communal levels**, which resulted in sustainable infrastructure and services, and greater consumer trust in and consumption of water services, thereby increasing new water connections and water consumption.
2. **Strengthening awareness and capacities at three key levels to create a favorable environment for PPPs:** 1) ensuring that communes understand the PPP model and can partner with WSPs to operationalize and scale PPP systems; 2) ensuring that technical services at the national and regional levels (MEAH/DREAH) understand the PPP concept, provide quality technical support, and assume their role as regulator; and 3) ensuring that communities are willing to pay for services and also value and protect water infrastructure.
3. **Infrastructure investments** by RANO WASH to generate potential users and accelerate extension of water services by WSPs.
4. **Closing the gap between potential and actual users** through capacity-building of the private sector and communes to develop and implement marketing plans.

[16] Environmental compliance activities include training, coaching, and monitoring for WSPs and communes.

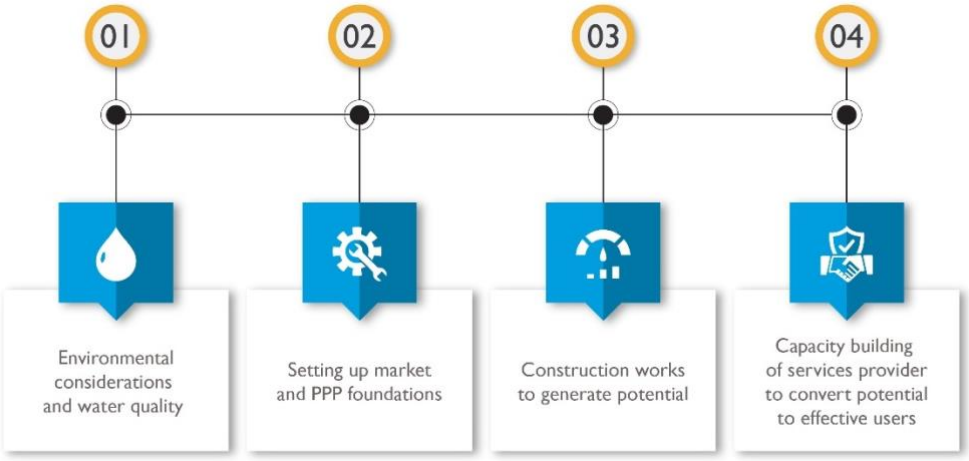


Figure 5. Water users build-up process

The Project worked with commune governments and WSPs during the design phase for the PPP contracts. These are investment, construction and management contracts, subject to a tender procedure for the construction work co-financed by the Project. The Project has supported eight communes in extending WSP services to fokontany not served by the initial water systems. More recently, ten communes have accepted unsolicited applications from private companies, and two water systems were operational by the end of the Project. The remaining communes in partnership with the WSPs continue to negotiate their respective financial contributions and the process of adapting to available resources. Before the end of the Project, DREAH took over to support the communes in the contracting process.

SETTING UP THE MARKET AND PPP FOUNDATIONS

When preparing to introduce paid water services into communes and communities long accustomed to community management models, generating interest is a critical early phase. To this end, RANO WASH sought to increase understanding of PPPs, benefits, and responsibilities in order to improve commune engagement throughout the service life, using process indicators to measure interest in PPPs. To provide guidance, as well as to standardize and scale best practices for each step in the PPP process, RANO WASH developed a variety of documents and a PPP toolbox for all actors.

Box 1: Highlights of disseminating the PPP approach

- 250 communes trained in PPP for water services
- 1,322 WSP/Commune staff trained in improved WASH service provision
- WASH Fairs: four regional or inter-regional events organized, involving 93 communes
- First *Salon de l'Eau, de l'Assainissement et l'Hygiène* organized by MEAH

Another innovation developed by the Project was its demand-led approach for selecting communes, which aimed to empower communes even before intervention began. Communes that prioritized WASH and were ready to engage potential partners in their localities were selected, and the Project developed a process and toolbox for this demand-driven approach. This was necessary because private-sector engagement requires a responsible and committed commune.

Although engaging all stakeholders (communes, WSPs, DREAH, and communities) in the PPP process does not lead to directly measurable results, it is a necessary preliminary process preceding the implementation of services. Many approaches to water services tend to underestimate the impact of a well-prepared environment, leading to a fragile business

environment—particularly at the communal level—and, consequently, to less sustainable services.

The Project also developed approaches, tools, and guidance to improve market development and strengthen the business case for WASH. We produced WASH Market Development Plans (WMDPs) for two regions and WASH Market Assessment (WMA) documents for seven regions. The Project supported communes in producing communal WASH business leaflets, and in distributing them during WASH fairs, to communicate market opportunities for the private sector. In FY 2023, RANO WASH supported the MEAH and its partners in holding the first "National WASH Fair" to demonstrate the government's willingness to engage the private sector in the WASH sector and scale the PPP approach. The WASH Fair model generated unsolicited bids from WSP enterprises for ten communes that expressed interest in engaging WSPs to manage their water system. In light of these successes, the GoM plans to hold more fairs using the model developed by RANO WASH.

CONSTRUCTION WORK TO GENERATE POTENTIAL BENEFICIARIES

Like many other projects, RANO WASH considered water infrastructures to be the main way to generate water service users. However, to measure sustainable service access, only effective users of the water connections can be considered beneficiaries. The Project built or rehabilitated 64 water systems, both pump-fed (13 systems spread in the coastal regions of Atsinanana, Vatovavy, and Fitovinany) and gravity-fed (51 systems across seven regions) as part of the PPP process. These water systems generated more than 400,000 potential water services users (see Annex 20. Water Service Coverage Projection until 2030).

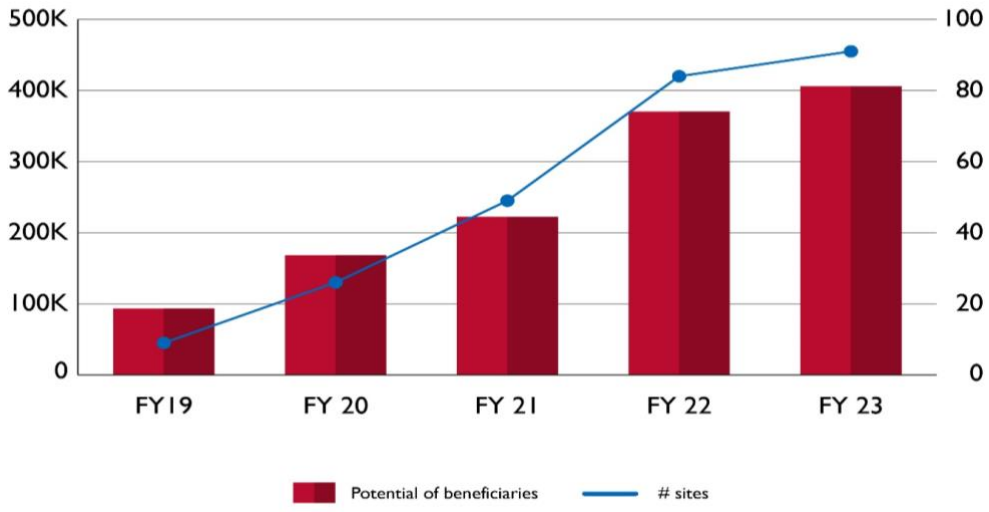


Figure 6. Correlation between water system installations and potential beneficiaries

Picture 3. A new water subscriber is happy to receive her subscription contract from AπR, the private manager of the water system in Ivato Centre, Amoron'i Mania.

This coverage plan reflects potential users across 91 communes that benefited from RANO WASH technical, material, and/or financial support related to water infrastructure. The Project supported 27 out of 91 communes to upgrade their water systems through capacity-building and networking activities, including rehabilitation of small non-functional water systems and installation of boreholes in isolated villages through partnerships with private donors. In addition, the Project provided financial and technical support to an additional 64 communes to implement the water PPP process. 84 percent of potential beneficiaries came from the 64 water supply systems built by the Project. The package of PPP activities implemented by RANO WASH significantly increased potential water service coverage, which in turn increased WSP profitability if they could effectively gain new customers.

SUPPORTING SYSTEM OPERATORS IN IMPLEMENTING A COVERAGE STRATEGY

Despite high service coverage rates, the cost of initial water connections slowed the growth of water service users, which called for appropriate responses. The Project used a range of financial and technical support methods, including:

- Material support to companies before service operations began so that they could launch a special offer with reduced water connection costs. This offer enabled at least 100 households to get water connections (private or social connections);
- RANO WASH provided training and coaching to operators on how to draw up a realistic business plan, taking into account the actions relating to their service plan (see IR 2.3); and
- From FY 2020, we piloted two models of automatic kiosks as an alternative before households connect to water connections; and
- Flexible and user-responsive payment systems.

One of the main challenges facing companies that seek to increase coverage is access to financial products. Starting in FY 2020, RANO WASH focused on connecting businesses with financial institutions. The Project aimed to investigate financial services and sources of financing that could meet the needs of WSPs. RANO WASH then organized events to present various service models, including:

- Partially subsidized loans (e.g., financing developed with SUNREF);
- Standard commercial loans offered by banks such as BNI/KRED, SMMEC,[17] Baobab,[18] BOA,[19] Accès Banque,[20] MCB, and BFV;
- Financial guarantees from institutions like Fonds De Garantie de Madagascar, Fihariana,[21] Solidis Garantie, and BSA Savoye[22];
- Capital investments from entities like Solidis Capital Investments[23] and Miarakap[24];
- Corporate Social Responsibility (CSR) mobilization from companies like Fanalamanga and TOTAL Energie; and
- Non-institutionalized resources, including contributions from associations of the Malagasy diaspora in the communes of intervention.

Box 2: Financial Institutions and Companies Foster New Initiatives

On the supply side:
- Financial institutions and guarantee funds better understand the WASH sector.
- New offers have been developed, such as SMMEC's management of revenue collection in Atsinanana.
- User loans for rural households registered with SMMEC in Amoron'i Mania Region.
- WSP functions as a mobile money provider for purchasing water connections in Amoron'i Mania Region.

On the demand side:
- Companies are actively mobilizing funds to expand their services.
- They selectively submit applications to institutions like SUNREF and banks.
- Extending partnerships with materials and equipment suppliers who offer payment facilities ranging from three to six months, or even longer in some cases.
- WSPs commonly use these extended payment facilities.

At the current stage of maturity in the sector, financial institutions as well as WSPs have launched initiatives to develop their businesses within the WASH sector. Some examples of WSP initiatives are listed in Box 2.

EXPAND ACCESS TO WATER SERVICES WITH AUTOMATED WATER KIOSKS

Because many households are reluctant or unable to afford the initial costs of private water connections, effective access to water points was a major challenge for the RANO WASH project. Social connections may be relevant alternatives, but managing water point use and water billing payments remains difficult and is effective only under specific conditions. (For example, the social water connection is more suitable for relatives sharing the same yard.) As for public water points, the main payment method used is "pay as you fetch." However, profitable management of public water points remains difficult for WSPs due to the need to pay a competent employee to run the water point, control revenues, and manage water spills or unpaid reclaimed water, which are common challenges for businesses.

[17] https://www.smmec.mg/
[18] https://baobab.com/
[19] https://boamadagascar.com/
[20] https://www.accesbanque.mg/
[21] https://fihariana.com/en/
[22] www.grassavoye.com
[23] https://www.solidis.org/en/home-2/
[24] http://miarakap.com/

Based on these gaps between supply and demand, as well as the opportunity to cover the beneficiaries of public water points, RANO WASH supported models of automatic water kiosks to efficiently provide water to users.

The Project piloted two types of kiosks—mechanical and electronic—as well as various business models in five regions. Chronologically, the Project implemented the initiatives in the regions of Atsinanana, Alaotra Mangoro, Amoron'i Mania, Vatovavy, and Fitovinany. The evolution of design and business models differs considerably among regions: in Atsinanana, it is a mechanical kiosk; the water system manager took full responsibility for revenue collection and kiosk management, while the kiosk supplier provided installation and maintenance training. In Alaotra Mangoro, the design was electronic with a concrete structure, and the business model was a subcontract between the kiosk supplier/manager and the water system managers.

The company managing the kiosk was responsible for revenue collection and purchased water from the water system managers. In Amoron'i Mania, Vatovavy, and Fitovinany, the design was still electronic but with a metal structure to facilitate installation and relocation. The water system managers were responsible for management and revenue collection, and the kiosk manager was responsible for installation, maintenance, and repairs if necessary.

SNAPSHOT

Automated Water Kiosks Revolutionize Water Services

Hasina Raharijaona explains how the kiosk works during the inauguration of the water system at Morarano Gare.

Automatic water kiosk in Alaotra Mangoro Region

Two innovative enterprises, Ny Ravo SarlU and Manampy Corporation, have collaborated in an effort to expand water services to communities where in-home piped water services are not yet viable. The two enterprises developed automatic coin-operated water kiosks from which customers purchase 20 liters of water by inserting an MGA 50 coin. This model eliminated the need for on-site staff, thereby reducing operating costs while extending social connections to additional households and communities outside of a water service provider's primary catchment zone.

How RANO WASH supported: Initially, PaolyJaona Rakotovololona (owner of Ny Ravo enterprise) and Raharijaona Hasina (owner of Manampy Corporation) faced challenges promoting their kiosks to water service providers as a viable model for increasing customers and revenue. However, with assistance from RANO WASH, their business model evolved significantly. They transitioned from simple delivery and installation services to more comprehensive distribution sub-contracts, eventually arriving at performance-based contracts between water service providers and kiosk enterprises.

Advancements and successes: Mechanical kiosks with automated water delivery were developed by Ny Ravo and improved by Manampy to use coins and record data on water dispensed. RANO WASH tested 80 kiosks with sub-contracts and 40 with performance-based contracts, with promising results, leading to significant revenue generation of MGA 2,000–6,000 per day with limited operating costs. The success rate improved from 40 percent to 90 percent in the second wave, inspiring interest from stakeholders. Kiosks are a viable option for water delivery in the Fitovinany region.

Inspiring transformation: The introduction of digital technologies for water delivery and management has gained attention from various stakeholders, including large enterprises like JIRAMA and aspiring entrepreneurs. The kiosk delivery model has paved the way for even the most rural water businesses to transform into modern, connected enterprises and address key bottlenecks to business viability.

Grateful testimony: "We may have the skill to make connected water points, but deploying them and reaching the current development stage with water service providers would have been impossible without RANO WASH," declared Hasina Raharijaona of Manampy Corporation. The journey of Ny Ravo and Manampy Corporation is an inspiration to aspiring entrepreneurs in the WASH sector. Their innovation, tenacity, and adaptability have exemplified new models for extending water services to underserved communities.

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

INSTALLING DRINKING WATER SYSTEMS

Installation was a complex process divided into three distinct phases: conception, construction, and exploitation.

The conception phase included technical studies (APS, APD, and ESF), site selection, enterprise selection, and PPP contract preparation. Technical studies were conducted in series. RANO WASH conducted 139 "Avant Projets Sommaires" (APS), of which 83 were further developed as "Avant-Projet Détaillé" (APD). Additionally, 51 "Environmental Screening Forms" (ESF) were developed and approved for construction. The following infographic summarizes the achieved technical studies.

250 Intervention communes

139 Avant-Projet Sommaires (Scoping Studies, APS)

83 Avant-Projet Détaillés (Detailed Design, APD)

51 Environmental Screening Forms (ESF)

40 Construction Contracts

67 Water Supply Systems

Following the study phase, the Project launched calls for tender to select companies for a "Build – Co-invest – Operate – Transfer" PPP model. We began with a call for expressions of interest resulting in the shortlisting of 91 companies. From this shortlist, we issued tenders for each water system construction. The Project developed a Model Tender Document for the sector, available on the Project website in the PPP toolbox.[25]

To facilitate learning relevant to PPP implementation, the Project conducted an After-Action review in FY 2021 sought to

Figure 7. Construction funnel FY 2018–2023

improve the tendering process and revise selection criteria for companies to become "Constructor – Co-investor – Manager" of water systems. Key revisions included establishing a mandatory minimum investment percentage for service providers at the tender stage, as well as a payback period not exceeding five years. By the end of the Project period, 22 companies had invested in, built, and managed 67 water supply systems in RANO WASH regions.

The construction phase is a "production" phase for the companies and the Project. Sandandrano and BushProof were responsible for technical studies and construction supervision. The pace of production has increased as the communes and teams become better prepared and accustomed to the PPP process. In FY 2020, the COVID-19 pandemic severely affected the market and people's ability to spend on basic services. However, construction work emerged after finding special measures to adapt to the restrictions. The Project capitalized on construction processes, infrastructure plans, reports and validation tools, and the training package accompanying the infrastructure.

[25] https://care.mg/ranowash/ppp-eau-potable/

Picture 4. This new water tank built in Vohitrindry, Fitovinany region, has a capacity of 50m3, and allow over 10,000 people to drink

All documents are available in the resource guide and on the Project website,[26] and the map of all RANO WASH water supply systems is available at the following link: https://crsorg.maps.arcgis.com/apps/webappviewer/index.html?id=5ef5eca5059a4be3bbd2e415de1b8bd0.

RANO WASH-supported water systems experienced infrastructure issues, notably with hybrid dams for surface water catchment. After the failure of the Morarano Chrome hybrid dam due to weather conditions in FY 2022, RANO WASH investigated and implemented three key measures: spillway and structural improvements, erosion and scour prevention measures, and flood preparedness measures. Lessons learned from this incident were documented and shared with WSPs and communes; the information is available on the Project website.

Environmental considerations were deeply integrated throughout the Project. An environmental impact assessment was conducted before construction, with approval from USAID. Additionally, Environmental Mitigation and Monitoring Reports (EMMRs) were produced annually, appended to the USAID's annual reports (see Annex 26: Environmental Mitigation and Monitoring Report (EMMR).

[26] https://care.mg/ranowash/engagement-du-secteur-prive/

IR 2.3 Strengthened Technical and Business Skills and Competencies

CAPACITY BUILDING OF SERVICE PROVIDERS TO CONVERT POTENTIAL TO EFFECTIVE WATER SERVICES USERS

The RANO WASH tendering process favored WSP companies that specialized in construction. This selection profile had advantages in the construction phase but disadvantages in the operation phase.

During the operating phase, construction-oriented companies tended to excel in managing day-to-day maintenance and operation, but often had difficulty adapting to the commercial aspects of water system development such as pricing and marketing, understanding and adapting to consumer needs, and planning for growth. Some companies remained attached to the idea that people could not afford to buy water connections instead of developing marketing strategies or adapting payment models. Construction companies often allocated financial and human resources to other construction and could not focus their management resources on service development.

RANO WASH supported and strengthened capacities of companies in several ways, such as by conducting a profile analysis to identify the support needed for each company, individual coaching of the companies, providing marketing support, and linking companies with financial institutions. The Project succeeded in strengthening companies' capacities to increase coverage and grow their businesses, although there is still need for added capacities; over the life of the Project, companies supported by RANO WASH recorded increased sales of up to 36 percent (FY 2021).

Figure 8 below shows the four key areas where RANO WASH focused on capacity-building for WSPs, tailored to each WSP's specific needs.

Figure 8. Capacity-building activities

Figure 9 below illustrates the evolution of potential and actual beneficiaries, indicating that they follow the same trend. The process adopted has facilitated a gradual increase in the number of beneficiaries, with 311,397 service users being reached through market preparation, potential generation, and beneficiary conversion activities carried out by the WSPs. The infographic shows that there is still a gap between potential and actual beneficiaries. To address this gap, the Project must incorporate capacity-building and material support for WSPs, which will help reduce the disparity and ensure a more effective reach of services to the target population.

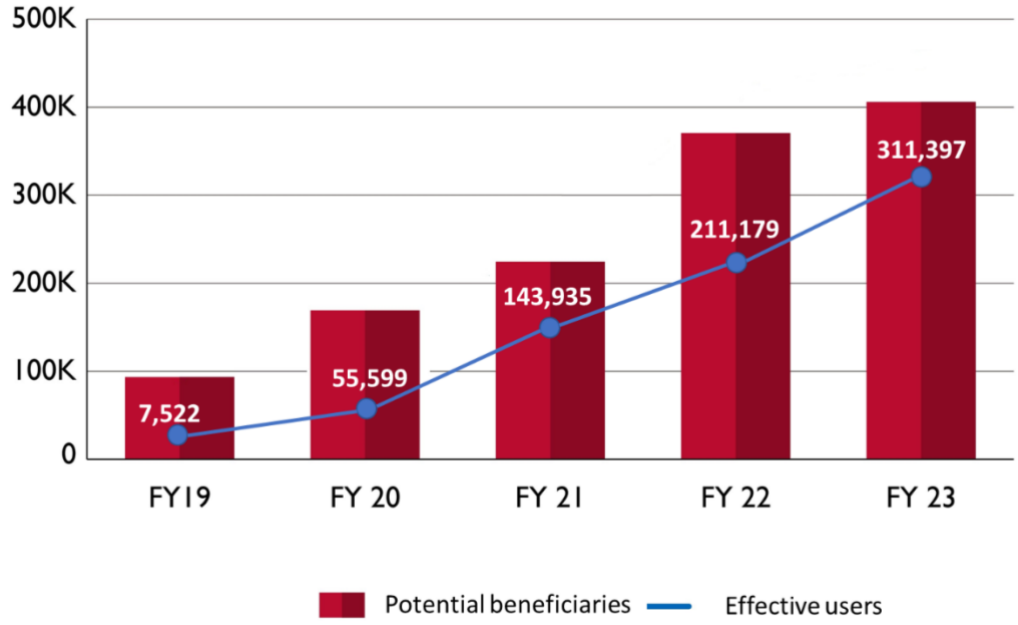


Figure 9. Potential and actual water users FY 2019–2023

The Project acknowledges that the selected WSPs' business plans did not consider market acquisition and lack long-term viability. Originally, the WSPs calculated payback periods and profitability based on low tariffs, which makes it challenging to introduce changes during operation. Consequently, the Project intervened by providing material and financial support to bridge this gap and accelerate the increase in water connections.

By addressing these issues and enhancing the WSPs' capabilities, the Project aims to make sustainable water services accessible to more people.

This parameter also explains why companies struggle to access commercial loans to finance their systems. In the past, companies took out bank loans to finance construction work or to support the bidding process, which they had to repay after completing the construction. However, loans for operational purposes—even for financially stable companies—were not feasible. The initial setting of low water tariffs severely limited WSPs' financial performance. WSPs defined these low tariffs to gain favor in tenders without fully considering the operational challenges.

Banks were reluctant to approve loans for such companies due to the risky nature of the business case. The low profitability resulting from the tariffs and the lack of market data indicating that people would pay for water made it difficult to assess the investment's viability. Moreover, investments in new systems were considered start-up activities, and as such were completely unfamiliar to banks and companies, which only exacerbated banks' reluctance to provide financing.

Partially subsidized impact investments (e.g., SUNREF) assessed the Project's impact on the environment and renewable resources, as well as the company's financial health. Unfortunately, in this case, the company's financial strength (Rano An'Ala B) did not meet the requirements to secure financing during the evaluation.

Annex 23 presents an analysis of the transition from the business plan to actual conditions and the impact of reimbursement, as well as a simulation of profitability if tariffs increased to higher but still acceptable levels. The following graphs show how potential and actual beneficiaries converged over the life of the Project.

RANO WASH set up water services with a large production capacity and a sustainable business to operate and grow through extensions. Existing water systems are expanding at different speeds to match the current market potential. Once the WSP reaches the potential users, population growth will increase the number of beneficiaries of existing water connections. At the end of the payback period, companies will likely reinvest in new systems, thereby generating an extension of service coverage. Annex 20 presents the projected number of beneficiaries up to 2030, and Annex 22 shows the required investments for communal coverage in the RANO WASH intervention communes.

Picture 5. Ambatomarina Dam, Amoron'i Mania

SNAPSHOT

Rano An'Ala B: Seizing Opportunities to Drive Water Services Growth

Rano An'Ala B office in Anosibe Ifody, Alaotra Mangoro Region

The Rano An'Ala B team and commune staff in Morarano Gara, Alaotra Mangoro Region

In the heart of the Alaotra Mangoro region, Rano An'Ala B has achieved remarkable growth in the water services industry. Starting with just two water systems, they now manage nine systems and continue to expand. Their journey can be summarized in two words: seizing opportunities. Through determination, innovation, and community-driven growth, Rano An'Ala B has become a shining example.

Creating a Path to Success: Rano An'Ala B's growth story began with relentless pursuit of every contract opportunity. They didn't wait for chances; instead, they created opportunities where none had existed, embodying the spirit of entrepreneurship.

From tender acquisitions to strategic collaborations: The enterprise diversified its strategies, acquiring two water systems through successful tenders with RANO WASH and engaging in co-financing extensions and rehabilitation projects. By replacing an underperforming enterprise, they showcased their commitment to service excellence.

Leveraging experience and diversifying partnerships: Leveraging their experience gained from RANO WASH, Rano An'Ala B pursued contracts with other projects and expanded their portfolio. By proactively approaching communes and pitching their services for water system rehabilitation, they found opportunities such as Mandialaza Commune.

Community-driven growth and financing: Engaging with communities, Rano An'Ala B secured support from the Project, ensuring rehabilitation for more than 500 households. They explored three more communes and sought financing from various programs, including SUNREF and FIHARIANA, to overcome financial sector reluctance.

Empowering the workforce and driving diversity: In line with their exponential growth, Rano An'Ala B 's team expanded from eight to 40 employees, with a remarkable 50:50 male–female ratio. The enterprise's commitment to empowering its workforce fosters a culture of inclusivity and drives innovation. As the financial sector trends toward improvement for WASH businesses, Rano An'Ala B's experience and enthusiasm promise to contribute significantly to the natural growth of the water services industry in the coming years.

Rano An'Ala B's triumphant journey showcases the power of seizing opportunities, determination, and community-driven growth. Transforming into a dynamic force in the water sector, they inspire aspiring entrepreneurs to create avenues for success. With a vision for sustainability and excellence, Rano An'Ala B continues to bring prosperity and hope, quench thirst, and make waves in the water services industry.

Picture 6. Visit by clients of the aspirational latrine prototypes launched in Lokomby with mentored masons to develop the MBS model in partnership with iDE, Lokomby Commune

MARKET-BASED SANITATION

At the start of the Project, access to sanitation services was an integral part of behavior change strategies. By its midpoint, the Project had already exceeded its sanitation target and so revised that target upwards, aiming to provide 627,113 people (up from 375,000) with access to limited and basic sanitation services. By its end, the Project had given 742,494 people access to limited and basic sanitation services. This good result is proof of the market potential for sanitation, as households mainly use self-built latrines. What's more, people prefer basic sanitation services (i.e., non-shared latrines): 426,843 vs only 315,651 for limited sanitation. To help households move up the sanitation ladder, the Project has begun to shape the supply-side sanitation market by training local masons in toilet production techniques and marketing, and by structuring them. In all, the Project has trained 287 masons to contribute to the overall sanitation effort in the communes.

To strengthen the market-based sanitation model, in FY 2021 the Project launched a two-phase Human-Centered Design (HCD) study with iDE. The objectives were to understand market drivers from the user's perspective, as well as constraints and overall business opportunities. The Project published two reports[27] on its website, which can be used by industry players to develop market-based sanitation businesses or services. A pilot phase was run in Lokomby, with the development of the Kabone Mandamina label. Products and communication tools from this pilot phase are also available on the Project website.[28]

[27] https://care.mg/ranowash/wp-content/uploads/2023/03/Preliminary-Phase_Final-Report_RANOWASH.pdf; https://care.mg/ranowash/wp-content/uploads/2023/03/Prototyping-and-tesing-phase_Final-Report_RANOWASH.pdf
[28] https://care.mg/ranowash/engagement-du-secteur-prive/

The Project also played an important role in influencing the WASH sector to develop the sanitation market. As the sanitation market study progressed, RANO WASH initiated exchange sessions with sector players, and the results of the study fed into the platform's thinking on market-based sanitation. Through these and other efforts, the Project has sparked a transformative shift in the WASH sector's perspective on strategies to improve access to sanitation services following the research with iDE. At first, WASH actors were of the opinion that toilets should be "basic and as inexpensive as possible"; however, RANO WASH introduced the concept of high-quality suction toilets, ushering in a market-oriented approach. The prototype test in Lokomby proved the viability of these models. Currently, product development and market analysis incorporate the HCD approach developed by RANO WASH.

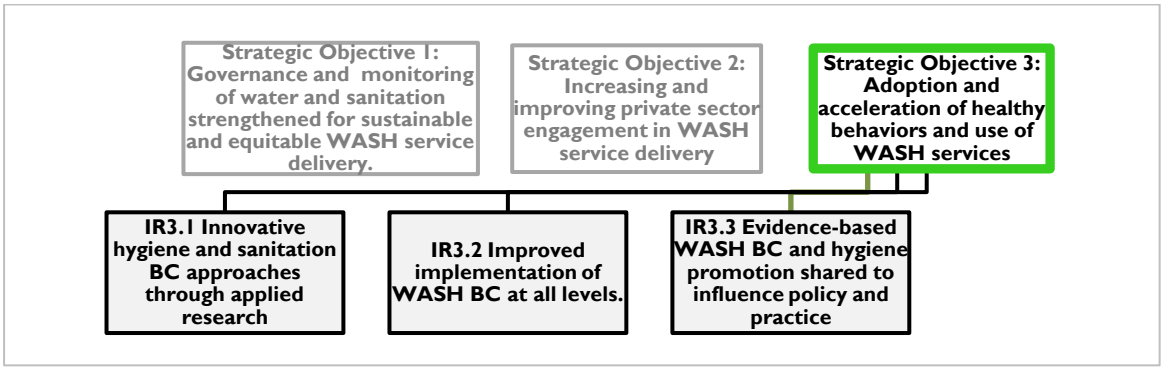
FECAL SLUDGE MANAGEMENT PILOT

RANO WASH has been running a fecal sludge management initiative since FY 2021, with the aim of strengthening the already-operational fecal sludge services as the Project received support needs for their business development during the regional WASH fairs organized. Through Sandandrano, the Project conducted an assessment of existing fecal sludge management initiatives in three regions and developed a scoring grid to compare the viability, potential, and opportunity for development of the services. Following this first phase, Sandandrano chose Eco-Dio to benefit from an in-depth study and provided institutional, legal, sociological, and technical recommendations.

The Project organized a workshop to discuss these recommendations with the DREAH of Haute Matsiatra, the *Commune Urbaine* of Fianarantsoa, and EcoDio. The Project also organized a webinar to share the study's findings with the sector; these resources are available on the Project website.

Other recommendations for future projects involving the FSM include incorporating the initiative into a broader approach to sanitation (particularly market-based sanitation).

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



Key achievements

- A comprehensive behavior change strategy that helped **85 communes** and **5,543 communities achieve ODF status**, gave **426,843 people** access to **basic sanitation services,** and **315,651 people** access to **limited sanitation services.**
- The Grow-Up Sticker approach helped **21,212 households obtain five petals** (i.e., practicing and maintaining all target behaviors).
- Research and sharing sessions on WASH behavior change, as well as WASH strategies and activities, resulted in **38 knowledge products** and **17 organizations practicing these strategies.**
- **Strengthened intersectoral collaboration**, especially between MEAH, MEN, and MPH, to improve **WASH interventions in schools and healthcare facilities.**
- Scaled up VSLA approach (group support, VSLA WASH fund, and VSLA contests) that incentivized **23,133 VSLA members** to make financial **investments in WASH services.**

IR 3.1 Improved Hygiene and Sanitation Behavior Change Solutions Through Applied Research

RESEARCH TO IMPROVE BEHAVIOR CHANGE INTERVENTIONS

Throughout implementation, RANO WASH used formative and action research to inform and design intervention strategies. Indeed, one of the Project's early findings from desk reviews of SBC interventions in Madagascar was the widespread use of awareness-raising and education activities to promote behavior change. However, although household knowledge of WASH behaviors was already high, this did not necessarily impact practices.

In FY 2018–2019, RANO WASH collaborated with the London School of Hygiene and Tropical Medicine (LSHTM) to conduct formative research to better understand the different WASH behavioral drivers that would inform the Project's strategy. This collaboration with LSHTM also developed action research on behavior change as well as the links between WASH and nutrition to influence practices and encourage learning within the WASH sector. These initial research activities enabled the Project to pursue an applied research approach to better inform interventions, "think outside the box," and encourage innovation to achieve improved practices at multiple levels.

Other research activities were conducted over the Project's six-year course to inform intervention strategies and contribute to the body of knowledge in the sector around WASH behavior change issues in Madagascar. The research activities and their use in the Project are summarized in Table 3 below:

Table 3. Research activities carried out and their use in the Project

Research	Partner	Product	Project use
Attitudes, practices, and perceptions of implementing partners regarding behavior change in Madagascar	LSHTM	Study report https://care.mg/ranowash/wp-content/uploads/2023/03/1_Behaviour-change-Attitudes-perceptions-and-activities.pdf	Enhanced understanding of stakeholder practices, especially around implementation fidelity as well as challenges and opportunities. The team was also able to better understand the latest innovations in behavior change.
WASH and nutrition integration in Madagascar	LSHTM	Study report followed by stakeholder feedback https://care.mg/ranowash/wp-content/uploads/2023/03/3_WASH-and-Nutrition-in-Madagascar_Rapport.pdf Presentation https://care.mg/ranowash/wp-content/uploads/2023/03/4_WASH-and-nutrition-in-Madagascar_presentation.pdf	Enabled the Project team to reflect on which behaviors to promote and how to integrate WASH activities with nutrition activities. This report was the source of collaboration with the World Bank-funded FAFY project and reflections on coordination/integration of WASH and nutrition activities in the field.

Research	Partner	Product	Project use
Formative research on the determinants of WASH behaviors: Using the BCD approach	LSHTM	Recommendations on behavioral determinants, which informed the Project's behavior change strategy https://care.mg/ranowash/wp-content/uploads/2023/03/BC-Strategy-1.pdf	Recommendations informed the Project's behavioral strategy, including the Grow-Up Sticker approach, school-based nudges, and combining CLTS with market approaches.
Barrier analysis for handwashing with soap	LSHTM and Connecteo	Study report on handwashing with soap by mothers https://care.mg/ranowash/wp-content/uploads/2023/03/5_Barrier-analysis-in-handwashing-with-soap-in-Madagascar.pdf	Recommendations confirmed relevance of behavior change activities and provided new perspectives for improving implementation.
Barrier analysis on use of privately managed water services	Internal	Study report on the use of privately managed water services https://care.mg/ranowash/wp-content/uploads/2023/03/6_Barrier-analysis-on-use-of-water-managed-by-private-operator.pdf	Recommendations generated discussions within the Project team to address issues private managers encountered, particularly in improving service quality, and support the Project should provide in this direction.
Case study on the contribution of savings groups to improving WASH services	Internal	Study report https://care.mg/ranowash/wp-content/uploads/2023/03/8_Case-study-VSLA-contributions-to-WASH.pdf	Identified better ways to mobilize savings groups to practice WASH behaviors.
Research using HCD to develop a market-based sanitation pilot model	iDE	A final preliminary study report https://care.mg/ranowash/wp-content/uploads/2023/03/Preliminary-Phase_Final-Report_RANOWASH.pdf A final report on the prototype and test phase https://care.mg/ranowash/wp-content/uploads/2023/03/Prototyping-and-tesing-phase_Final-Report_RANOWASH.pdf Product, Demand, Supply and Finance documents https://drive.google.com/file/d/1gpMa3Tkt1-kyW3xmwvZcZMpxtPOWZrcn/view?usp=share_linkpour https://care.mg/ranowash/wp-content/uploads/2023/05/Supply-Annexes-Final-Deliverable.zip	This research informed the Kabone Mandamina model pilot and further reflection on market-based approaches. The study was presented and shared on several occasions with MEAH, members of the market-based sanitation working group, and during the industrial consultation workshop organized by MEAH and UNICEF.

Research	Partner	Product	Project use
Research on approaches to promoting handwashing with soap with Happy Tap and Fondation Mérieux	Fondation Mérieux Happy Tap	An interim report is available at the link below. The final report is still underway. https://care.mg/ranowash/wp-content/uploads/2023/08/Brief-handwashing-in-school.pdf	This study enabled the Project to take part in a simple comparative study to measure the practice of handwashing by primary school pupils. More specifically, this research was able to confirm the importance of implementing nudges to encourage the practice of handwashing with soap. The results will be used by actors in the sector, especially the MEN.

Picture 7. A mother in Androy, Haute Matsiatra region, participated in the ideal kitchen contest to improve her hygiene

SNAPSHOT

Ranomainty Commune: An example of an ODF Commune

On its 25th anniversary, Ranomainty Commune in Alaotra Mangoro Region was declared an ODF Commune and a Model Commune.

Celebration of the ODF Bejofo Commune, Alaotra Mangoro Region

Celebration of the ODF Bejofo Commune, Alaotra Mangoro Region

Since it began collaborating with RANO WASH in April 2020, Ranomainty Commune has enjoyed unprecedented growth and change, recalls 31-year-old Jeannot Randrianarimbola, Ranomainty's youthful and dynamic mayor. The partnership has established a local consultation structure, a space for inclusive dialogue and consultation, and created the OSCEAH, which advocates for increasing the WASH sector budget allocation.

After overcoming opposition from fokontany chiefs, the Commune now has a budget for sanitation and hygiene. The RANO WASH team focused on building the Commune government's capacity to lead WASH activities, including PCDEAH and STEAH agents, joint triggering for CLTS, and sector reviews.

RANO WASH's efforts focused on achieving ODF status at the commune level, where legal and governance frameworks have proven highly effective in such efforts. To succeed, commune governments must have a WASH plan and governance frameworks. RANO WASH aimed to build the Commune government's capacity to spearhead planning, monitoring, and budgeting of WASH activities by engaging in sector reviews, discussing bottlenecks, and identifying best practices. This approach challenged the prevailing belief that communities alone were responsible for achieving and maintaining ODF status. "All these efforts will be in vain if we don't maintain ODF status," concluded Mayor Randrianarimbola.

Communes are the decentralized authority closest to the population, where service authorities make decisions that affect villages under their jurisdictions, emphasizing the importance of strengthening government leadership and support for governance.

Eighty-four other communes have also achieved ODF status under RANO WASH, and all 84 are equipped to maintain this status beyond the end of the Project.

IR 3.2 Improved Implementation of WASH Behavior Change at All Levels: Communities, Government, and Private Sector

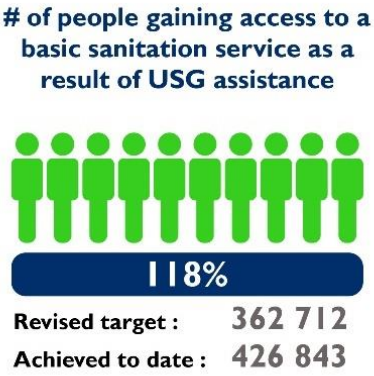
RANO WASH's SBC strategy contributed to many important gains, including nearly 1 million people living in an ODF environment, more than 678,000 households with access to basic and safely managed sanitation services, and an increase from 16 to 34 percent in handwashing with soap and water.

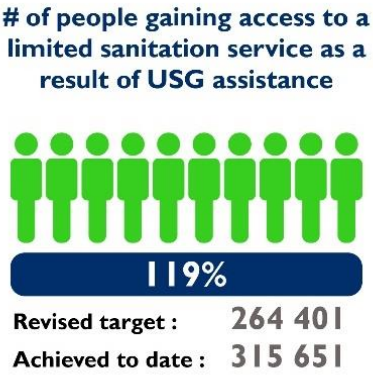
Thanks to the Project, women and girls now experience menstruation with dignity and serenity, having access to showers and sanitary towels that meet their needs. Through the Grow-Up Sticker (GUS) approach, 30,688 households have adopted key menstrual hygiene practices, and local seamstresses have sold 91,810 reusable sanitary towels.

The behavior change strategy was refined and adapted throughout the six-year implementation period and was informed by formative, action, and implementation fidelity research. To achieve these large-scale gains, RANO WASH implemented a systems approach that focused on commune-level government as the entry point and tested different combinations of approaches to assist communes in achieving ODF status. The RANO WASH strategy mobilized commune governments, the private sector, formal and informal leaders, women's rights organizations, schools, health facilities, and community members.

SANITATION APPROACH

RANO WASH's sanitation approach was aligned with, and contributed to, meeting the objectives and goals for the GoM's Madagasikara Madio 2030 strategy. The Project tested layering, timing, and sequencing of multiple demand-raising approaches, including SBC, Community-Led Total Sanitation (CLTS), Follow-up Mandona (FUM), and supply-side approaches such as market-based sanitation (MBS). Performance of sanitation indicators are outlined below.





Picture 8. ODF celebration in Andrainjato commune by "Firaisantsoa," a VSLA of WASH actors committed to making their commune one of the top ten Madio communes in Haute Matsiatra.

In collaboration with the FAA, the Project used the standard CLTS + FUM approach during the first two years of implementation, including field-level triggering, action planning, and training of local masons (in collaboration with NGO Saint-Gabriel), as well as follow-up and re-triggering. RANO WASH developed the first iteration of its CLTS and sanitation strategy in 2019, which it continued to reiterate and refine throughout implementation. The final strategy can be consulted on the website[29].

As implementation progressed, the team used action research, the M&E system, and pause-and-reflect sessions with field staff to further refine the sanitation strategy, including adaptations to CLTS. This involved integrating a governance component to incorporate institutional triggering of commune government teams as well as increasing the capacity and leadership of commune teams to plan, budget, and monitor for sanitation and hygiene. On the supply side, to increase availability of aspiration and affordable sanitation and hygiene products, the team and iDE ran an MBS pilot in Lokomby Commune in Fitovinany Region and integrated more robust business planning and marketing support for local masons and seamstresses (more details discussed in Section 3.2).

[29] https://care.mg/ranowash/wp-content/uploads/2023/03/CLTS-and-Sanitation-Strategy.pdf

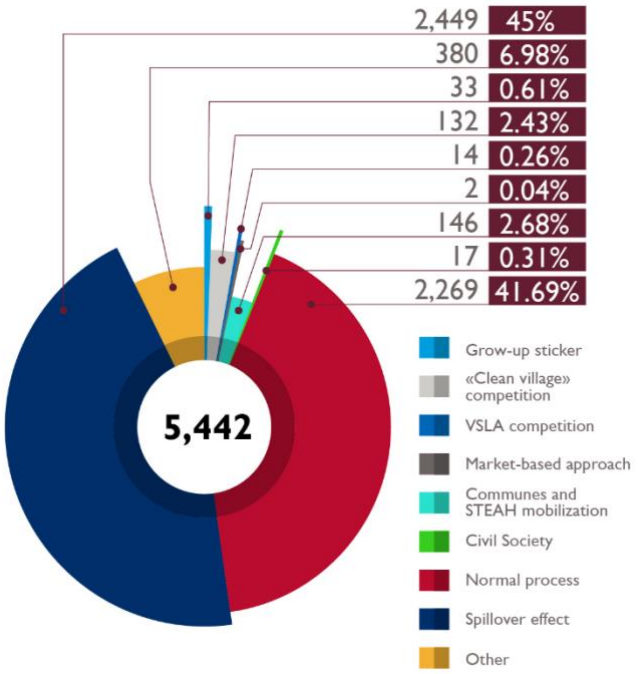
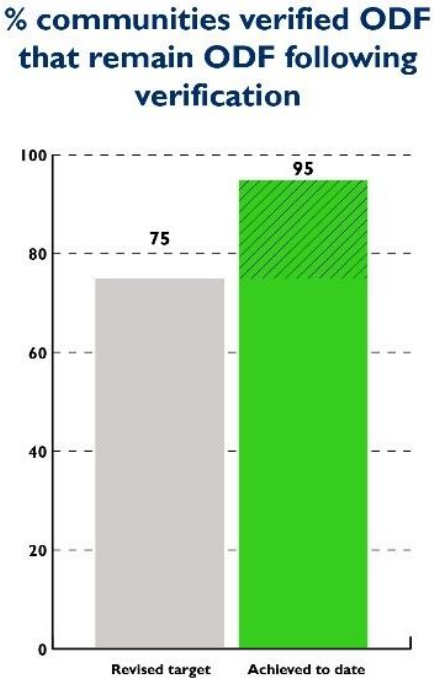


Figure 10. RANO WASH ODF Process



In 2020, sanitation gains began to scale to the commune level, with several communes achieving ODF status. The Project's learning sessions identified best practices and strategies for scaling these gains across the seven intervention regions, achieving impressive results and exceeding the targets.

One major finding was the importance of the commune as an entry point for strengthening government leadership and support to communes around sanitation. Previous efforts in Madagascar focused only on communities, anchored by a belief that communities were solely responsible for achieving and maintaining ODF status.

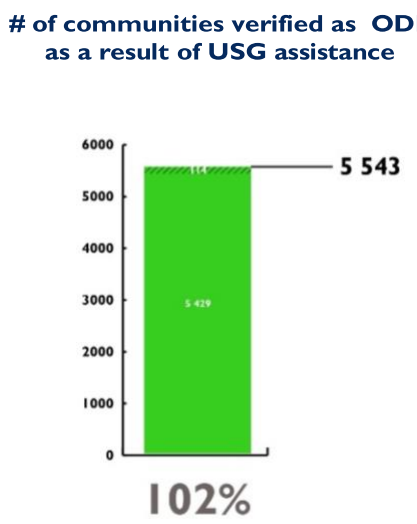
Our team challenged this assumption by recognizing that ODF is influenced by the legal and governance frameworks at the commune level.

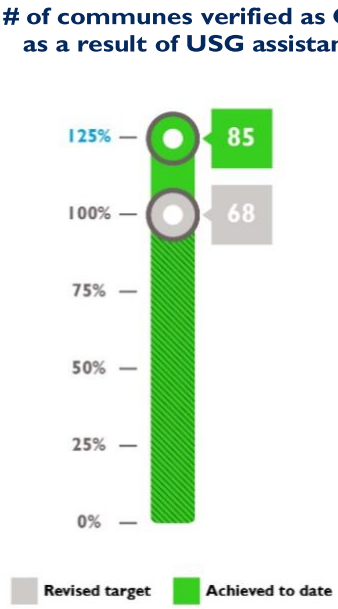
Therefore, for demand- and supply-side interventions to succeed, commune governments must have a WASH plan and governance frameworks to achieve and maintain ODF status. This approach not only accelerated coverage of ODF, but also reduced recidivism among communities as evidenced by the graph above.

Building on these lessons learned among ODF communes, the team adapted its sanitation strategy and synthesized those lessons into a brief, which is available in English [30] and Malagasy. [31] Results were also disseminated among regional teams.

[30] https://care.mg/ranowash/wp-content/uploads/2023/03/Learning-brief-ODF-COmmune.pdf
[31] https://care.mg/ranowash/wp-content/uploads/2023/03/Torolalana-Kaominina-ODF-Malagasy-2.pdf

To better understand how ODF status was achieved, the Project tracked the different sanitation approaches and found that a "ripple effect" enabled 45 percent of communities to achieve ODF status. The second most common approach was the CLTS approach. The following graph maps the different methods used and captured by the Project's M&E system. The spillover effect was defined when no CLTS trigger was initiated in the village or community, but community members nevertheless decided to become ODF. There was no one winning formula for layering, sequencing, and timing different sanitation approaches. CLTS remained





key to generating early demand, but it requires that communes critically reflect on the package of activities and determine adaptations for their specific governance and community dynamics, population densities, and hydrogeological contexts. The availability of products and services facilitates the uptake of behaviors and should be considered before or after demand-raising approaches.

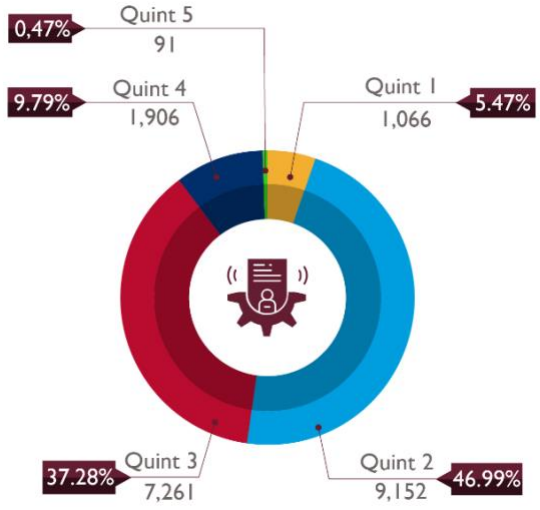


Figure 11. Distribution of households by poverty quintile

In terms of sanitation reach across wealth quintiles, the Project reached poor and middle socio-economic household caegories, but its impact among the poorest households (Quintile 1) was lower than expected. (Figure 11)

MARKET-BASED SANITATION PILOT

As mentioned in Section 3.1, the Project collaborated with iDE to set up an MBS pilot from FY 2021–2023 in the Lokomby commune of Fitovinany. The pilot produced a product range of toilet models and add-ons (slabs, pits, pans, and superstructures) based on the aspirations of future customers (Kabone Mandamina brand) and tested a local mason network service delivery model (Mpandraharaha Kabone Mandamina). To test the model and conduct market outreach, the team held a three-day exhibition that resulted in 35 orders. This confirmed the feasibility of a potential sanitation market in a high-density rural commune.

The pilot used two key approaches: (1) the use of HCD to develop products and customer segments and (2) consideration of different aspects of the sanitation market, particularly financing and the supply chain, at the same time that product development and market research were conducted. However, the scale of the pilot was small (just one commune) and incomplete due to time and resource constraints.

More details on this pilot are available on the project website[32] and direct links to the resources document are provided in Table 3 Research activities carried out and their use in the Project.

Figure 12. Grow Up Sticker

THE GROW-UP STICKER APPROACH TO PROMOTING HYGIENE AT THE HOUSEHOLD LEVEL

For hygiene-related activities, the Grow Up Sticker (GUS) approach promoted hand, food, and menstrual hygiene behaviors at the household level. To standardize and scale GUS, the Project developed a practical guide [33] and tools for implementation, including the implementation guide[34] for the local promoter and the facilitation guide[35] (both are available in Malagasy).

After six years of project intervention, the Project had increased the practice of handwashing with soap from 16.08 percent to 34 percent, fulfilling 96 percent of the target.

[32] https://care.mg/ranowash/engagement-du-secteur-prive/
[33] https://care.mg/ranowash/wp-content/uploads/2023/03/1_Practical-guide-to-Grow-Up-Sticker-Approach.pdf
[34] https://care.mg/ranowash/wp-content/uploads/2023/03/TOROLALANA-MPANETSIKA-IFOTONY.pdf
[35] https://care.mg/ranowash/wp-content/uploads/2023/03/7_Guide-de-facilitation-finale-ENG.pdf

The GUS approach used a flower to signify a "Model Household" and petals as a reward mechanism that households gain when practicing and maintaining a behavior. As of FY 2023, 21,212 households have obtained all five petals to become Model Households.

Table 4 presents the distribution of each petal by household.

Table 4. Grow Up Sticker Petals results

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%

Picture 9. A mother in the Andranomanelatra Commune, Vakinankaratra region, is very proud to practice all the hygiene behaviors and becomes a model in her community.

SNAPSHOT

How Village Agents and VSLA contests helped improve access to water

Jeanne Arlette, a Village Agent, mobilized the VSLA group Fivoarantsoa to improve access to water services in her community. According to this woman leader, progress is achieved through behavior change and financial empowerment.

Jeanne Arlette Rafanjamala

Jeanne Arlette is a Village Agent in the Andrainjato Ambalavao Commune of the Haute Matsiatra Region. Her main responsibility is to initiate the creation of village savings and loans associations (VSLAs). She chose this job because she strongly believes that bringing together a small group of people to work in unison and support each other can bring about change in the world. In her case, the combination of behavior change, and financial empowerment has aided progress and will help to develop her community. Over the past year, she has successfully established 25 savings and loan groups, despite such challenges as walking long distances under the scorching sun from one town to another. She says, "The adversity did not deter me from contributing to the development of my commune."

At the beginning of the year, the RANO WASH project launched the WASH VSLA contest to increase the number of people who can access drinking water. Arlette managed to persuade ten VSLA groups to participate in the contest—but only one group, the Association Fivoarantsoa, completed the task. Together, they strategized to create maximum private connections by conducting door-to-door visits, organizing meetings or animations during market days, and building collective water points. They successfully created two water points that benefited 800 people. The Fivoarantsoa group raised MGA 1,800,000 among themselves to execute their action plan, but it wasn't easy. They had to walk several kilometers daily—often with nothing more to eat but green mangoes found on the road. Rasamimanga Marcelle, a municipal councilor of Andrainjato Commune and member of the Voamami Fivoarantsoa group, actively participated in the contest. She recalls, "Convincing the household to purchase water connections was not easy. We had to come back two or three times and quickly take them to the private manager, so they don't change their mind."

The VSLA contest was one of the Project's strategies to promote better hygiene practices and to improve access to toilets or water services. Mobilizing VSLA groups like the Fivoarantsoa group, Village Agents like Arlette, and local authorities like Marcelle has proven to be effective in increasing access to water services. VSLA groups are easy to mobilize because they have a culture of mutual influence and leadership, coupled with greater financial resources than other households.

Picture 10.Several women have become autonomous through the savings and loan provided by the VSLA Taratra group in Ambatotsihy Andrainjato Ambalavao Commune. Ambatotsihy is an ODF Fokontany thanks to this dynamic VSLA group

THE VSLA APPROACH

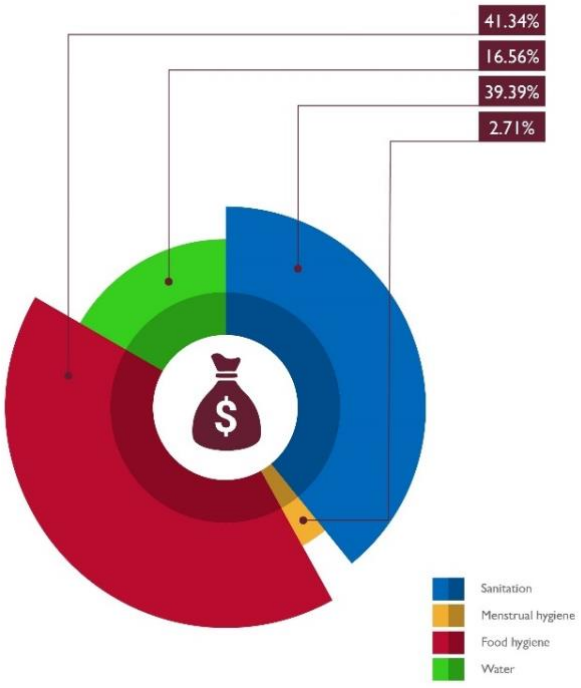


Figure 13. WASH investment allocation

The Project also used the VSLA approach to promote sanitation and hygiene; the Project's VSLA strategy is available on its website.[36]

The VSLA strategy played a significant role in achieving and exceeding Project objectives. This strategy involved various activities that recognized and utilized VSLAs as pioneers, early adopters, and agents of change. This included supportive supervision and group support provided by Village Agents (VAs) and RPGEM, VSLA contests that promoted the concept of an "Ideal Kitchen," and the creation of a VSLA WASH fund for each group.

After six years, VSLA members had pooled together a sum of USD 97,472 to purchase WASH products and services. Additionally, among the 872 groups listed on

[36] https://care.mg/ranowash/wp-content/uploads/2023/03/RANO-WASH-VSLA-STRATEGY.pdf

SAVIX, comprising 15,356 members, the value of the total saving amounted to MGA 1,086,102,288 (approximately USD 240,292).

These groups provided 7,703 loans worth a total of MGA 765,633,809 (USD 169,390), with an average loan amount of MGA 108,247 (roughly USD 24). This indicates that the Project not only mobilized savings groups for WASH access but also went beyond by contributing to women's economic and financial empowerment, as women made up 73 percent of the savings groups.

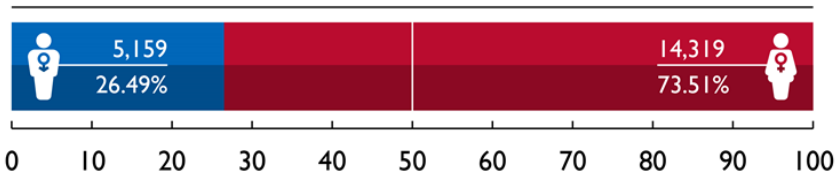


Figure 14. Proportion of men Vs women who invested in VSLAs

To institutionalize and document the approach, the team developed practical guidelines and documents to support implementation in collaboration with RPGEM. These include the ToR to organize VSLA contests, how to set up VSLA groups, how to ensure quality in VSLA groups, financial education curriculum for VAs, and a series of cards[37] with tips to help VAs facilitate sessions with their groups. All of these documents can be found on RANO WASH's website. The Project collaborated with 741 VAs (more than half of whom were women, and almost half of whom were between 17–35 years old), providing training and guidance to professionalize the VAs so they can continue to set up and support VSLAs as way to improve income generation for rural households, and thus, to access to WASH services and products.

APPROACH FOR INSTITUTIONS (SCHOOLS AND HEALTH FACILITIES)

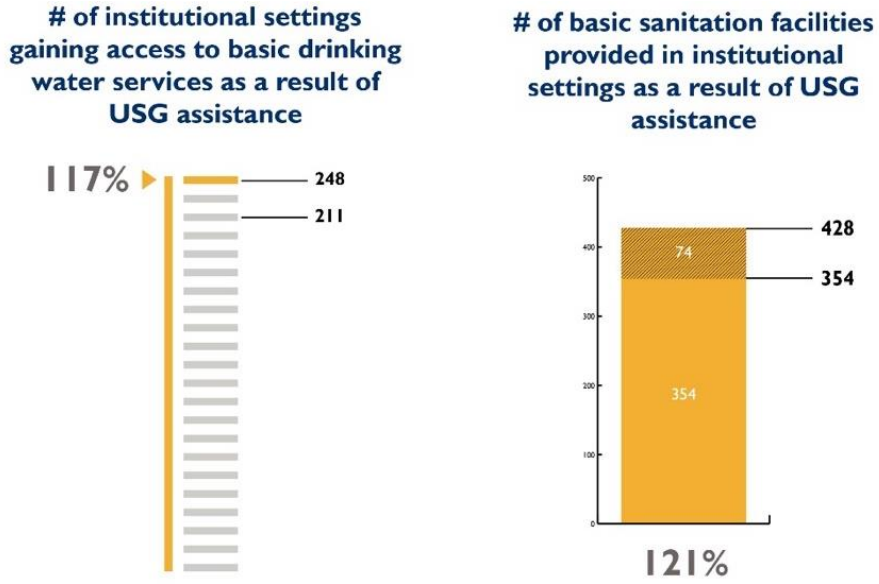
The Project also collaborated with the Ministry of Public Health and the Ministry of Education to help health facilities and schools increase their access to WASH services and improve behavioral practices. The WASH in Institutions approach provided infrastructure investment and supported schools' and health facilities' efforts to adopt and improve the GoM's "WASH-friendly" approach. However, the number of schools and health facilities that achieved WASH-friendly status was not considered a valid indicator for progress, given the systemic and operational difficulties in implementing this approach. Such difficulties included the centralized process and the quality of the training, which was not oriented toward specific competencies. (More details on this are given in IR 3.3.)

The Project also contributed to the development of a guide for sustainability of WASH services at the institutional level. Although line ministries have yet to validate it, the document contains the essential elements needed to fuel reflection and enable stakeholders to advance their thinking on the sustainability of WASH services at schools and health facilities. The Project developed several practical tools to help institutions; these can be accessed on the Project website.

They include a tool to calculate annual WASH expenditures, and another to elaborate a simple action plan.

[37] https://care.mg/ranowash/wp-content/uploads/2023/03/18_Carte-conseil-en-education-financiere.pdf

The following results were obtained at the institutional level:



Pictures 11. Students wash their hands at Ampasimadinika primary school, Atsinanana)

IR 3.3 Evidence-Based WASH Behavior Change and Hygiene Promotion Shared to Influence Policy

SRMO: COORDINATION AND LEARNING FOR BEHAVIOR CHANGE

The Project originally conceived of a "learning hub" as its initial strategy for promoting structured learning to influence behavior change practices and policy. However, the Project team concluded that the best way to promote learning and influence practice was to use existing coordination platforms at the national and regional levels (supported under SO1) rather than to create a new structure. As part of their mandate, the SNC-EAH (national coordination body) and the SRMOs (regional coordination platforms) aim to facilitate joint planning, implementation of plans, sectoral reviews, learning and sharing among the various WASH players in the public and private sectors as well as TFPs. The Project became co-leader of SRMOs in three regions (Atsinanana, Alaotra Mangoro, and Fitovinany) which enabled it to better use this platform for learning.

These structures were leveraged to facilitate exchanges and promote successful behavior change approaches, including sanitation strategies and models to fulfill Madagascar Madio targets. As a result, RANO WASH shared best practices that were adopted beyond the Project's intervention districts. This was the case in Alaotra Mangoro and Atsinanana, where (thanks to the SRMOs and support from the DREAH), RANO WASH sanitation strategies—especially CLTS adaptations and working with local masons during Follow-Up Mandona—were used in districts other than those in which the Project was active, thereby helping the regions to better plan their interventions toward the fulfillment of Madagascar Madio. Furthermore, the Project also seized the opportunity offered by SRMOs to share other project strategies, such as the GUS approach and the VSLA approach.

CROSS-SECTOR COLLABORATION TO INFLUENCE PRACTICES AND POLICIES

At national, regional, and local levels, the Project promoted cross-sectoral collaboration, working with the Ministries of Education and Public Health to improve access to WASH services at the institutional level while also collaborating with the Health Population and Environment Network to integrate WASH activities into environmental protection activities.

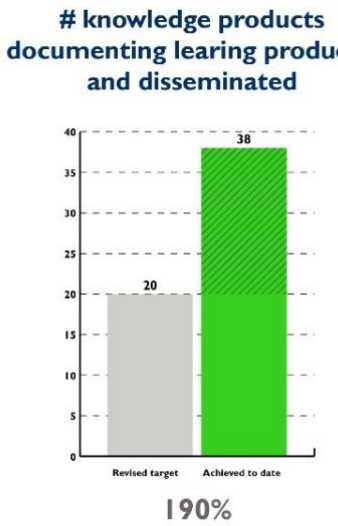
At the level of schools and health facilities, the Project worked closely with line ministries—MEAH, MSP, and MEN—to improve the WASH-friendly approach. Indeed, very few schools and health facilities achieved this status, and the challenges can be summed up in three key points: (1) the process is too centralized and does not allow for the empowerment and capacity-building of regional and local players, (2) the training provided is not practical and does not enable players to implement concrete actions to improve access to WASH services in institutions and, finally, (3) the mechanism for sustaining WASH services at an institutional level is unclear, which means that even if schools and health facilities are supported in accessing services and products, they are unable to ensure the continuity of these services there in the long term. These problems stem from endemic decentralization challenges in Madagascar.

In collaboration with other technical and financial partners, RANO WASH helped resolve some of these problems through activities such as the creation of a training curricula for health workers, community agents and hygiene committees for the WASH-friendly training approach that was finalized by the Ministry of Public Health, and which will facilitate the decentralization of training and related processes. In addition, as mentioned under IR 3.2, the Project and three ministries developed a sustainability guide that identifies stronger mechanisms for the sustainability of WASH services at the institutional level. A key success factor was the involvement of other ministries, including that of the Interior and Decentralization (MID) and

Economy and Finance (MEF), as well as technical and financial partners. The next step for sector players is to validate and disseminate the guide.

The Project also strengthened intersectoral collaboration in Madagascar through the Health Population Environment approach. RANO WASH collaborated with the Health Population and Environment Network and developed pilots that promoted collaboration with other regional and local players to ensure the integration of interventions and results in the environmental, WASH, and health sectors. In Vatovavy, for example, the Project—together with Centre Valbio—improved water source protection activities (reforestation and environmental education in schools) around the Kianjanomby drinking water supply system. In Atsinanana, the Project collaborated with several stakeholders to develop integrated WASH and conservation interventions in Ivoloina National Park. Finally, in the seven regions where it operates, the Project systematically collaborated with the DREDDs to obtain seedlings for reforestation around water source protection perimeters.

LEARNING AND SHARING SESSIONS AT NATIONAL AND INTERNATIONAL LEVEL TO INFLUENCE PRACTICES



The Project also valued learning sessions throughout implementation and carried out several sharing activities. For example, after the first GUS pilot, the Project organized a sharing session that garnered insights from other CARE offices, local organizations and the MEAH team. The Project also organized two learning workshops—one in September 2022 and another online in March 2023—which centered on governance, private-sector engagement, behavior change, and gender. Specifically, on behavior change, we shared VSLA's roles in behavior change, ODF Commune strategy, and interventions at institutional settings. Learning activities often focused on producing learning products that were disseminated through webinars, presentation workshops, or the Project website. The team developed 38 learning products (see graph opposite), nearly doubling the 20 that had been planned. These included briefs, reports, and technical guides on GUS implementation, learnings from ODF communes, and financial education curricula. All are available in the Resources Guide on the Project website.

The Project also promoted the use of these approaches and strategies to improve practices in the field. During the five years, 17 organizations reported using RANO WASH approaches and strategies in sites outside the Project intervention area. These organizations include the local partner NGOs, consortium members, private management companies, and other organizations who attended the project-sharing sessions.

The Project participated in sharing sessions at national and international levels to share and influence practices. One notable presentation was made during the workshop on WASH behavior change strategies by the NGO Ran'Eau. The Project's strategy was showcased, along with activities in the field carried out in Alaotra Mangoro. Another presentation emphasized the professionalization process for VAs, which was part of a workshop organized by RPGEM and its members. Additionally, the Project presented its activities in water, sanitation, and hygiene (with a focus on the systems-strengthening approach) to members of the PHE network.

The Project also made several presentations and shared information at the All Systems Go Africa[38] (ASGA) conference in Accra, Ghana; the UNC Conference in Chapel Hill, North Carolina, USA[39]; and the menstrual hygiene podcast produced with Impact Tank. These presentations aimed to disseminate the lessons learned from the Project.

Picture 12. Members of VSLA, from all village savings and loan association in Andrainjato Ambalavao, Haute Matsiatra region, organized a reforestation session to protect the new water supply system perimeter. The Mickael company manages this water system.

[38] https://www.ircwash.org/all-systems-go-africa
[39] https://waterinstitute.unc.edu/conferences/2021-unc-water-and-health-conference
https://www.youtube.com/channel/UCcnCktZmjYgCM7-QaEA7MhQ/videos

3.4 GENDER MAINSTREAMING

As of 2023, there has been clear progress on female and youth empowerment and participation in WASH decisions:

- **Three times more women and youth in local participation.** The number of women and young members of local decision-making bodies rose from 10 percent to almost 35 percent.
- **Women are taking on more leadership positions.** These included a Minister of WASH (from 2019–2021) as well as women serving as Mayors, Fokontany Chiefs, District Chiefs, and Regional Directors. Women in such public offices exhibited management skills, with positive results: women now occupy more administrative, logistical, and financial positions at the local level. Women make up 16 percent of leadership positions in local decision-making structures and 24 percent in CSOs. They are more active within community-level platforms, are more vocal sharing their opinions, and are more involved in decision-making through their participation in consultation structures, as well as in the coordination and planning of communal meetings.
- **The government is building for change.** The Ministry of Population has paid to include a gender focal point at all levels of the Ministry. 177 Gender Focal Points are embedded in the MEAH and line ministries at the national and regional levels.
- **50-percent increase in women in income-generating activities.** Women made up 48 percent of participants in activities designed to increase assets, credit, income or employment, up from 30 percent at the beginning of the Project.
- **Public leaders support gender equality.** The Gender Task Force led by the MEAH holds regular meetings. 34 percent of local leaders have the training to support gender equality through their roles, compared to 25 percent in 2018.
- **Policies support equality in WASH.** There is now a national strategy on menstrual hygiene, and its dissemination and communication are the next steps for MEAH team.
- **Infrastructure is being built for equality.** WASH service providers are building water systems and latrines to make sure everyone has safe access to water and sanitation.
- **More equitable division of household labor.** The final evaluation found that the number of households that adopted equitable gender division of labor had grown from the baseline, with "Model Households" from the GUS approach making up the majority.
- **Savings groups have been a key platform for women's leadership.** Compared to local government, where only 5 percent of elected mayors are women, **93 percent of savings group leaders are women**. Through VSLAs, businesses led by women and youth accessed nearly USD 170,000 in loans to grow their companies, purchasing power, and income. VSLA members were also innovators, change agents, and early adopters; some 14,219 women in VSLAs invested in WASH products and services for their families.
- **Women entrepreneurs make a difference. 470 women** established and grew businesses in sanitary pad production. In 2021, there was only one woman entrepreneur among the 16 water enterprises that manage piped water networks under support from the Project. Today, women make up 33 percent of WSP staff—and in Fitovinany, women make up more than half of WSP staff. However, there remains a need for more concerted efforts to recruit, train, and retain women in water and sanitation businesses.

GENDER ANALYSIS AND GENDER MAINSTREAMING STRATEGY

At the start-up phase, the Project conducted a context-specific gender analysis in the intervention regions. The gender analysis was guided by CARE International's Women's Empowerment Framework, based on three key sub-dimensions of women's empowerment as the sum total of: (1) changes in her agency (e.g., issues related to the capacity of the individual, self-confidence, knowledge); (2) her structure (e.g., institutions, organizations, laws, norms); and (3) her relationships of power (e.g., within the household, community).

GENDER ANALYSIS HIGHLIGHTS

- Women have less time than men due to expectations of running the household and contributing to working in the field. Women are expected to be flexible and clean and to respect men.
- Although violence and harassment are illegal, some women fear retaliation if they contribute opinions on decisions, and distant water sources are likely a risk of GBV for women and girls.
- Women and people with disabilities are expected to remain silent; thus, major decisions regarding selling, purchasing, and constructing are made by men.
- Women, girls, and people with disabilities are the most disadvantaged due to use of poor WASH infrastructure.
- Social norms put women in a relationship of dependence, even submission, that prevents them from engaging in viable economic actions and contributing to decision-making.

The RANO WASH gender analysis aimed to:

- **Identify gender dynamics in households and communities before mainstreaming actions directed toward women or men:** current gender inequalities, roles of women, men, girls, boys, and disabled people at the familial and community levels; their respective access to, and control over, the material and non-material benefits of society; and their priorities, needs, and responsibilities;
- **Highlight social trends that promote more equitable norms and practices** that can benefit the Project in advancing gender equality activities; and
- **Identify changes desired by respondents as well as entry points** by which the RANO WASH Project can work with key actors (e.g., opinion leaders, youth, women, men) to weaken harmful standards and strengthen fair practices.

In FY 2020, RANO WASH conducted a Rapid Gender Analysis to investigate how the COVID-19 crisis affected women, men, girls, and boys in Madagascar and to formulate practical recommendations for implementing preventive and socio-economic support interventions. The reports of the two gender analyses are available on the RANO WASH website.[40] The Project developed its gender mainstreaming strategy [41] based on the recommendations of the gender analysis and CARE International's Women's Empowerment Framework.

Picture 13. Gender focal point in Vatovavy Fitovinany Region

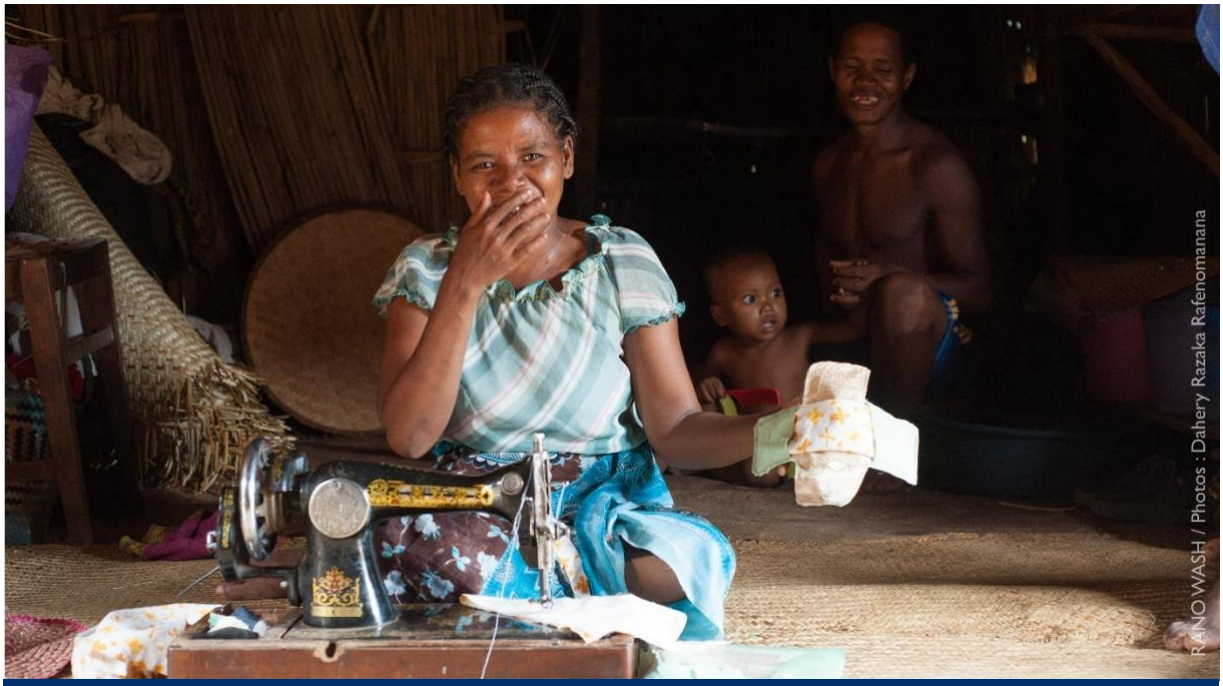
[40] https://care.mg/ranowash/wp-content/uploads/2023/03/1-RANO-WASH-Gender-Analysis.pdf ; https://care.mg/ranowash/wp-content/uploads/2023/03/2-Rapid-Gender-Analysis-for-COVID-19-in-Madagascar.pdf
[41] https://care.mg/ranowash/wp-content/uploads/2023/03/1-RANO-WASH-Gender-and-social-inclusion-mainstreming-strategy.pdf

CAPACITY BUILDING FOR THE PROJECT TEAM AND WASH SECTOR PARTNERS

Gender mainstreaming must begin with the people who will facilitate it. At the start of the Project, RANO WASH called on CARE's expertise to train the Project team on gender and social inclusion and transformative approaches.

The Project identified gender focal points among the Project team and partner ministries (MEAH, MEN, Ministère de la Population, MSP) at the national and regional levels to facilitate change at the level of partner organizations and in the WASH sector. RANO WASH held training and exchange sessions on their achievements and challenges. These gender focal points had the opportunity to experiment with transformative approaches, gender mapping, and the gender marker. As a result of the capacity-building provided by the Project, they have become effective champions of gender and social inclusion, advocating for these principles and driving positive change within their respective institutions.

Throughout the course of the Project—and especially from FY 2020 onward—RANO WASH initiated learning sessions to share best practices and valuable insights on gender mainstreaming. These sessions facilitated knowledge exchange between gender focal points, project staff, and stakeholders within the WASH sector at the regional, national, and international levels.



Picture 14. The local seamstress of Savana, Vatovavy Fitovinany region, assures that her job allows her to cover all her needs. She sells her products in her village as well as in nearby villages. By collaborating with different CSB II and doctors, she finds clients she finds clients much more easily.

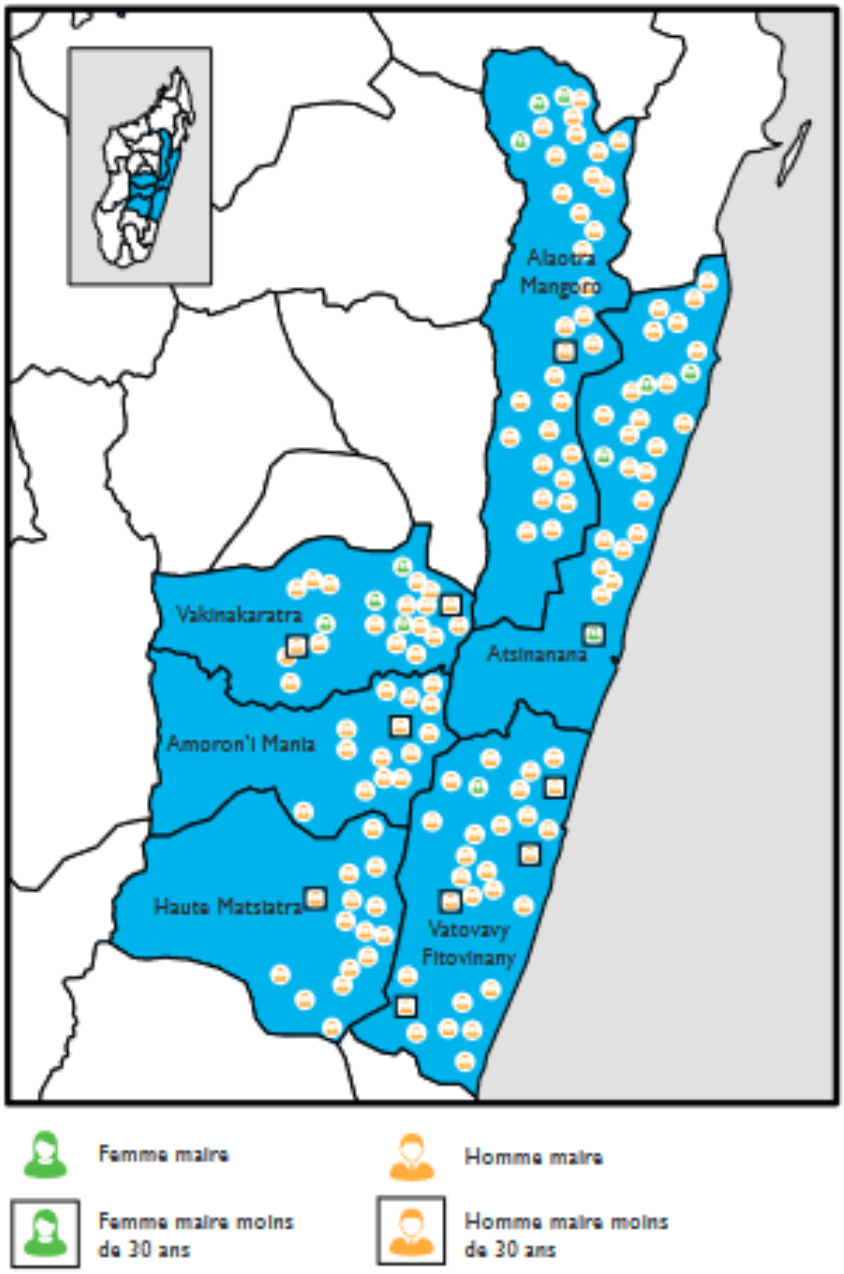


Figure 15. Gender mapping of mayors in RANO WASH intervention regions

GENDER MAPPING OF SEVERAL STAKEHOLDERS

The Project has developed gender mapping[42] of stakeholders to facilitate reflection between the team and key stakeholders, including: (1) project staff, (2) mayors, (3) fokontany chiefs, and (4) local private operators.

The gender mapping yielded valuable insights: out of 314 Project staff members, only 98 (31 percent) are women. Even more strikingly, among the 250 elected mayors, only 12 are women—just 5 percent. Furthermore, women also remain underrepresented in the local private sector and among fokontany chiefs. Gender mapping confirmed that few women occupy formal leadership positions in public or private spheres and that few women feel they can aspire to leadership positions.

The mapping influenced the Project's activities. For example, RANO WASH identified women leaders and facilitated spaces for learning, exchange, and support, including sharing experiences, best practices, and challenges. The Project also organized events for these women leaders to share their experiences with other women and young girls, to inspire them to develop their leadership skills. Women leaders have significantly emerged in local structures such as SLC and OSC-EAH contributing to the successful results in improving access to WASH services. Additionally, women entrepreneurs have been instrumental in providing essential WASH services to the rural population in the Project's intervention communes, positively impacting the community's well-being and sustainable development.

INCLUSIVE WASH SERVICES

One of the main objectives of gender mainstreaming and social inclusion is to ensure access to inclusive services. In FY 2019, RANO WASH worked with other WASH projects to establish a list of minimum requirements for inclusive infrastructure in public places, with particular emphasis on schools and health centers. A document summarizing these inclusive infrastructure criteria is available on the Project website.[43] WSPs working with RANO WASH used this document as a reference to build inclusive infrastructures. In addition, for drinking water services, households had a choice of water connections according to their preferences and ability to pay: collective water points such as automatic kiosks for those who pay for water daily, social water connections for a group of households who manage to organize themselves among themselves, and private water connections for those who can afford their own connections.

Access to services is enhanced when all categories—women, girls, men, boys, youth, the elderly, and people with disabilities—can access community consultation and decision-making forums. RANO WASH has strengthened these structures to make them more inclusive. RANO WASH interventions impact on gender and social inclusion provides analysis from the Final Evaluation of the Project on the changes brought about by RANO WASH on women's and young people's access to these spaces for dialogue and debate, such as OSCs-EAH, ASUREP, and SLC.

> *"Everyone is a beneficiary, whether man or woman. There is no discrimination of the rich or poor, disabled, faith or not. There have been promotion and awareness-raising that pushed the population to benefit from the offer. They were informed of the existence and advantages of the Project. There is no limit in terms of accessibility. There are those who have chosen to use the private connection, and social connection..."* – Deputy Mayor, Ampasibe Onibe Commune

[42] https://care.mg/ranowash/genre-et-inclusion-sociale/
[43] https://care.mg/ranowash/wp-content/uploads/2023/03/Minimum-requirements-for-inclusive-WASH-infrastructure.pdf

TRANSFORMATIVE APPROACHES TO BREAK DOWN HARMFUL SOCIAL NORMS

A lesson highlighted in the RANO WASH Final Evaluation is the importance of transformative approaches to change social norms such as the taboo around menstrual hygiene, the low participation of women and young people in debating and decision-making bodies, and the difficulty of access for women and young people to some professions.

To help these marginalized demographics enjoy their rights, increase their capacities, and take responsibility for their own development as well as that of their localities, RANO WASH has used the following approaches: engaging men for women's empowerment,[44] Social Analysis and Action,[45] and Youth and Women's Entrepreneurship.[46]

GENDER MARKER

RANO WASH used the CARE International Gender Marker tool[47] to facilitate self-assessment of gender mainstreaming by staff and gender focal points. The Project applied the Gender Marker at the midpoint and the end of the Project. At mid-term, RANO WASH scored "Responsive" [48] and needed to reinforce gender-transformative approaches. At the final Gender Marker, the Project scored "Transformative."[49]

Based on the outcomes from the RANO WASH Final Evaluation, the Project achieved a "Transformative" gender score by significantly improving access to WASH services for women, youths, and marginalized groups. Additionally, it promoted positive changes in social norms related to menstrual hygiene and empowered women through enhanced economic opportunities. Moreover, the Project facilitated greater female representation in decision-making structures, fostering a more inclusive and gender-sensitive approach within the WASH sector. (See Annex 12: RANO WASH interventions impact on gender and social inclusion.)

However, the main recommendation for projects such RANO WASH from the final Gender Marker is to use quantitative data to provide more evidence and fuel scaling-up and policy change. Figure 16 provides definitions of the different grades.

[44] https://care.mg/ranowash/wp-content/uploads/2023/07/12-Engagement-des-Hommes-Apprenant.pdf
[45] https://care.mg/ranowash/wp-content/uploads/2023/07/10-Analyse-et-Action-sociale-Apprenant.pdf
[46] https://care.mg/ranowash/wp-content/uploads/2023/03/Curriculum-de-formation-Entrepreunariat-Jeunes-operateurs-WASH-1.pdf
[47] http://gender.careinternationalwikis.org/_media/care_gender_marker_guidance_english.pdf
[48] https://care.mg/ranowash/wp-content/uploads/2023/03/RANO-WASH-Gender-Marker-Mid-term-Evaluation-Results.pdf
[49] https://care.mg/ranowash/wp-content/uploads/2023/03/RANO-WASH-Gender-Marker-Final-Evaluation-Results.pdf

What do the grades mean?

Projects are awarded a grade from 0 to 4 along CARE's Gender Continuum. Note that a grade of 2 or higher for humanitarian response indicates a significant achievement in integrating gender.

0 HARMFUL	1 NEUTRAL	2 SENSITIVE	3 RESPONSIVE	4 TRANSFORMATIVE
Programming that ignores the economic /social /political roles, rights, entitlements, responsibilities, obligations, and power relations associated with being female and male, as well as the dynamics between and among men and women, boys and girls.	Programming that works with gender norms. Reinforces and may take advantage of pre-existing gender inequitable structures, systems, and social divisions relating to gender. Does not consider how gender roles and relations can impede the achievement of programming outcomes or how programming can negatively affect gender roles and relations.	Programming that adapts to gender norms. Works around existing gender differences and inequalities to ensure equitable allocation /services /support aligned with the pre-existing gender differences, structures, systems, and power divisions in society. Aware of the effect of leveraging inequitable gender norms for programming outcomes.	Programming that challenges inequitable gender norms. Responds to individuals' different needs and constraints based on their gender and sexuality. Opens space for discussing, challenging, and engaging with inequitable gender structures, systems, divisions, and power relations. Provides the opportunity for participants to question, experiment and challenge genre inequities.	Policies and programs that change inequitable gender norms and relations to promote equality. Not only has the ambition to transform gender but has the resources, willingness, and capacity to institutionalize transformative programming.

Figure 16. CARE Gender Marker grade definition

3.5 Monitoring, Evaluation, Accountability, and Learning (MEAL)

3.5.1 MEAL System

The setting up and operationalizing of the MEAL system was spearheaded by CRS and began in FY 2018. Over the implementation period, the Project faced a number of challenges, such as changes in the leadership and membership of the MEAL team at both the national and regional levels, as well as outbreaks of plague (2018–2019) and COVID-19 (2020–2021).

Simple Monitoring of Indicators for Learning and Evidence-based Reporting (SMILER)

The Project used CRS's SMILER, a comprehensive and practical approach to develop an M&E system. SMILER's objectives and their indicators are linked to a system to collect, analyze, and report on data. SMILER includes mechanisms that process data into useful knowledge that supports sound project decision-making and ensures that all staff clearly understand the Project and their own roles in M&E.[50]

As a part of the various preliminary processes involved in setting up the MEAL system, according to the AIP, a national SMILER workshop was held at Hotel Le Pavé Antaninarenina on July 2–4, 2018, with all project stakeholders present. This workshop was organized with the aim of:

[50] Source: ProPack III The CRS Project Package, A Guide to Creating a SMILER M&E System

- Developing working documents for the Project's monitoring and evaluation system;
- Compiling the contributions of participants to update the documents in order to produce the complete M&E operational manual for the Project;
- Setting up the detailed monitoring and evaluation system, data collection, and data reporting; and
- Familiarizing RANO WASH technical staff with this M&E system.

The workshop considered the following components:

- Objective of the MEAL System Project;
- Stakeholder analysis;
- MEAL requirements and needs of donors and the Project;
- Data and information flows;
- Common understanding of project indicators and analysis of the relevance of indicators/data collection tools;
- Data quality assurance;
- Theory of change;
- Responsibility: response and feedback mechanisms;
- Introduction to learning; and
- ICT4D and Project data management.

After the national workshop, the Project continued with training to introduce the MEAL system at the regional level. Technicians were trained regionally in multiple TA recruitment waves, and each regional MEAL was responsible for planning refresher sessions. These workshops emphasized the practical use of the MEAL system, with training on data collection forms, tablet usage, and best practices for mobile data collection. Additionally, the workshops covered Project beneficiary enumeration and accountability mechanisms, followed by simulations and practical exercises to reinforce the training.

Picture 15. Field Agents practicing data entry on tablets at the SMILER workshop in Vatovavy Fitovinany

ICT4D TECHNOLOGY

At outset of the Project, paper forms were used as collection tools until suitable ICT4D technology could be selected and procured. After discussions with consortium members, the MEAL team—with support from CRS ICT4D Advisors—decided to use the CommCare application. The Project started using the forms in FY 2018 Q4. Before that, a temporary method and tool was used, including online data entry. The chart below provides an overview of the different tools used by the Project.

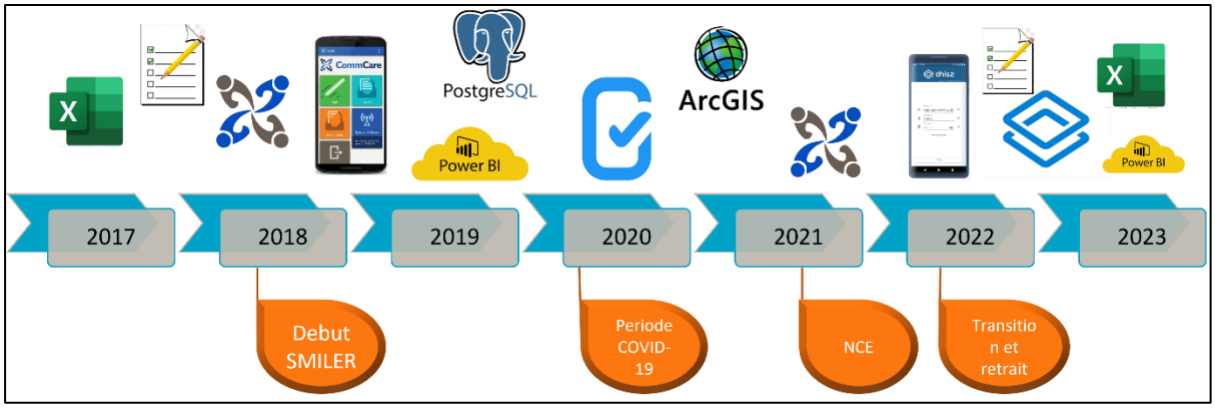


Figure 17. Trend in the use of ICT4D tools in the RANO WASH Project

As the Project progressed and its approach evolved, so too did the technology used. This facilitated easy monitoring of activities and adaptation to the Project's context. Initially, the DHIS2 application and Azure were not used due to application redundancy, as the Project was already using CommCare. However, during the transition period, the DHIS2 application used by MEAH for SE&AM was eventually selected and adopted by STEAH and WSP field staff. This decision during the transition and close-out periods was based on the initiation and preparation of sustainable reporting of the sector's activities in SE&AM.

Gradually, CommCare forms were developed, starting with the Beneficiary Household Census Form. Improvements to the forms were made based on updates to the PMP, observations of facts in the field, and comments from the program team on the information to be collected. These improvements facilitated tracking of the progress of interventions at the household or community levels.

Throughout the life of the Project, the Project team made incremental reviews and improvements to ensure its success.

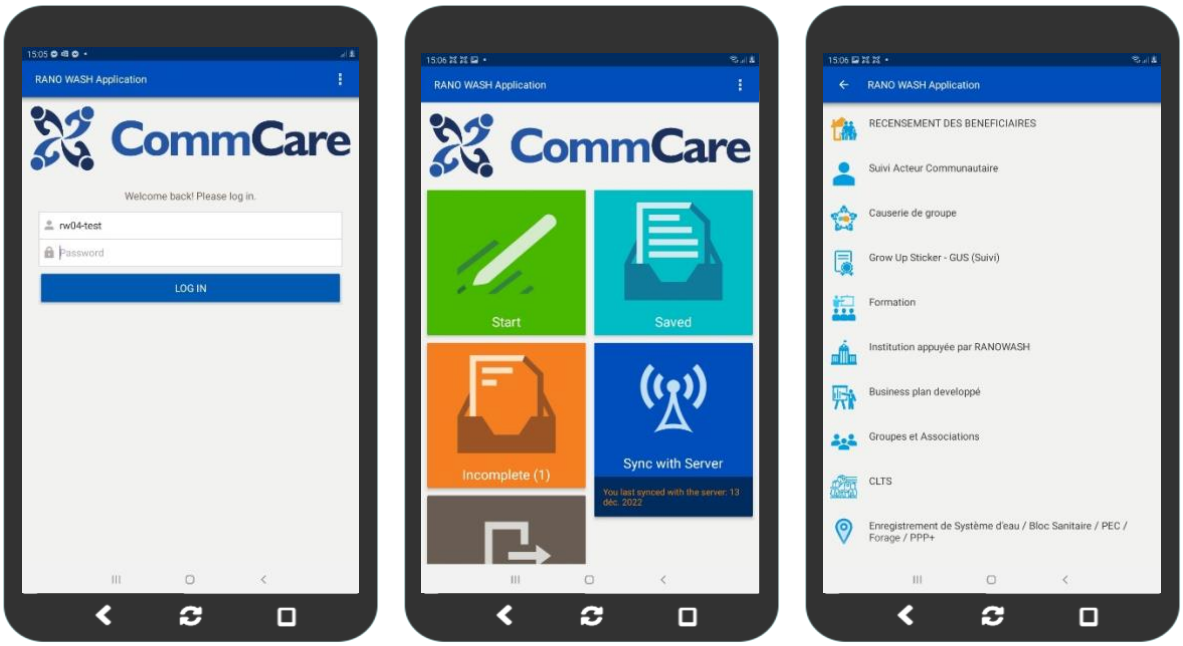


Figure 18. CommCare forms interface

During the transition and close-out period of the Project, the MEAL system was adapted to the national monitoring and evaluation system through SE&AM. The data collection responsibility was transferred from project staff to STEAH and technicians from water system management companies. The form used for data collection was changed from CommCare to DHIS2 to allow for easy updating of the SE&AM platform. In collaboration with MEAH's DSI team, nine forms were developed in DHIS2, tailored to meet the needs of the Project, Ministry, water system managers, communes, and other potential users of the application in the future.

To ensure the operationalization of the system, the Project has provided Technical Assistants (TAs) with solar-powered tablets and flat-rate monthly internet connections through CRS. This will make data entry and real-time synchronization easier. Table 5 provides a breakdown of the kits provided.

Table 5. ICT4D equipment supplied to operate the MEAL system

Types of equipment	Quantity	User	Use
SAMSUNG TAB A8 tablets with Voltaic solar charger, Power bank Voltaic, Cover for Samsung, and Data connection chip	213	TA and other project staff: MEAL, hard technician, VSLA technician, RD of the seven regions: 57 ATS, 55 ALM, 33 VKN, 17 AMM, 12 HTM, 33 V7V	Data feedback, formative follow-up
Domino with Internet connection chip	21	Zone or district manager	Data validation in CommCare
SAMSUNG smartphones and tablets	52 tablets and 198 smartphones	STEAHs in 250 communes	Data collection during the transition, withdrawal and post-project periods

Tablets were distributed each year during SMILER workshops in 2018, 2019, and 2020 at the regional level. Additionally, the District Managers received dominoes with chip connections in 2020 to ensure data validation and accountability in the system, as planned at the national SMILER workshop.

The provision of smartphones for the STEAHs in the 250 communes is a project strategy based on the disposal plan. The equipment (worth more than USD 5,000), which was formerly used by the Project, will be given to the beneficiaries of our activities. After assessing the functionality of the tablets returned after their use by the Tas, 52 were found to be reusable and are being provided to STEAH. The other 198 communes received smartphones from WaterAid to support the use of SE&AM. These resources were also used as part of the Project's monitoring and evaluation system, particularly during the transition and withdrawal periods.

DATA MANAGEMENT

The Project created a data model using My SQL and worked with the SARO CRS regional MEAL team to develop a data flow, which was discussed during the national SMILER workshop and also with the Project coordination team. All information regarding the Project's data flow, conceptual data model, and data flow during the Project's transition and withdrawal phases can be found on the Project website.

An online dashboard was developed on Power BI for the presentation of the Project's accomplishments, which was accessible to all users. The dashboard was first made available online in FY 2019 Q4 and was continuously improved while adhering to CRS data confidentiality procedures and policies. The final version of the dashboard (now available online) is updated monthly for real-time data access, project team reporting, and remedial action facilitation.

During COVID-19, the Project assumed a leading role in information management and supported the WASH cluster. The Project collaborated with UNICEF to manage and update the WASH cluster's COVID-19 response dashboard on a weekly basis. The dashboard showcases the response activities of WASH actors across Madagascar by highlighting regional needs and gaps using interactive maps and graphs.

To ensure data quality, the Project's MEAL staff at the central, regional, and implementing partner levels conducted periodic DQA activities. The frequency of these activities varied according to the team level, with the partner's MEAL conducting descents monthly, the regional MEAL level conducting quarterly DQAs, and the PCT level conducting half-yearly DQAs.

SUPPORT FOR SE&AM UPGRADE

The Project has been supporting MEAH in implementing and operationalizing SE&AM as a contribution to achieving Strategic Objective 1. This support has been ongoing since the launch of the Project:

- Support for the technician and consultant in charge of the software redirecting to the domain name www.bdeah-sesam.mg in 2018, and debugging the system by modifying lines of code;
- Adaptation of the MEAL system to the SE&AM system to reinforce the operationalization of the system and the use of tools by technicians;
- Support for the DSI MEAH team in training DREAH, STEAH, and WSP staff from the seven regions and 250 communes on the DHIS2 SE&AM during the transition and withdrawal periods of the Project, and with a view to reinforcing the sustainable use of SE&AM;
- Development of a Malagasy version of the DHIS2 mobile user guide for STEAH and WSP staff;
- Allocation of 52 tablets to STEAH; and
- CRS's FY 2023 contribution toward the allocation of 16 additional GB of RAM from the SE&AM server to TELMA for a period of 20 months.

3.5.2 Project Performance Monitoring Plan (PMP)

At the start of the Project, a Performance Monitoring Plan (PMP) and other project monitoring documents, such as the Annual Work Plan (AWP), were developed. These were finalized and approved by USAID in early FY 2018 after the PCT team worked on the development of MEAL visions and objectives, conducted a stakeholder needs analysis, and analyzed key indicators with the USAID team.

The PMP was revised in FY 2019 based on feedback from USAID to remove output indicators and fully document all PIRS. It was then revised again in FY 2021 to update PIRS and adjust the reporting frequency from quarterly to annual for some high-level indicators. The changes

affected certain indicators that could not be updated during routine reporting but required annual surveys:

- # of VSLA members who reported investing in WASH services or products (e.g., latrine, water connection);
- # of WSP/artisans/vendors issued loan products for investment in WASH systems;
- # of people gaining access to basic drinking water services as a result of USG assistance; and
- # of people gaining access to safely managed drinking water services as a result of USG assistance.

Examples of revisions to the PMP include:

- **Data collection system.** The system for collecting data began with paper forms, but later shifted to online data entry and the use of the CommCare app. However, because some data collection and reporting methods were not suitable for use in the field, updates and improvements were made to better meet the activity needs. In response to the COVID-19 pandemic, a new data collection tool was developed and an online PBI dashboard was used to present achievements. The MEAL RANO WASH team led the data management for the WASH cluster during the COVID-19 pandemic. In accordance with WASH cluster practice, the Project utilized Kobo data collection and an online Excel data entry system.
- **Indicators monitored and reported.** The Project has made some changes to its indicators based on reflections and analyses of its achievements. For instance, the indicator "# of institutions achieving WASH-friendly status with RANO WASH support" (identified by 3.2.2.2) has been removed from the MEAL plan for FY 2020. This is because it overlaps with USAID indicators H.L.8.1–4 and H.L.8.2–4, which measure the number of institutional settings gaining access to basic drinking water services and basic sanitation facilities, respectively. These USAID indicators already capture achievements related to water and sanitation access in schools and health centers. Additionally, a new indicator was added toward the end of FY 2020. This new indicator measures the number of communes certified as ODF due to USG assistance. The gender indicators have also been adjusted to align with USAID indicators.
- **PIRS.** In light of the progress made in implementation and the Project's innovative approaches, it was necessary to improve certain indicator descriptions, definitions, and collection methods. A total of 14 indicators were affected by these updates.

The Project team made improvements and updates based on recommendations from USAID after DQA activities, or upon request. Thus, the planned activities in the PMP have been completed. Furthermore, the MEAL system has become more dynamic through adjustments made to fit the context, needs, and recommendations.

3.5.3 MEAL Activities

The Project has carried out various types of evaluation planned Project, such as the Initial Evaluation, the Mid-Term Evaluation, the Mid-Term Review and the Final Evaluation.

WASH INFRASTRUCTURE BASELINE AND INVENTORY

The baseline study for the Project was conducted in two stages. The first stage focused on the initial three intervention regions: Atsinanana, Alaotra Mangoro, and Vatovavy Fitovinany. SIMS/MSIS, a consulting firm, conducted the study in FY 2018 and submitted their report to USAID in FY 2018 for review and validation. The final version became available in October 2018.

The second study covered the three new regions: Vakinankaratra, Amoron'i Mania, and Haute Matsiatra. It was conducted in FY 2022 with several restrictions imposed due to the COVID-19 pandemic, such as regrouping, relocation, and raids. Despite several possible solutions, the activity was postponed until FY 2020 or even FY 2021. The consultant produced the second report, which was submitted to USAID in December 2021, covering the baseline study for the new regions.

The objectives of these studies were as follows:

- **Identify the Project's sub-indicators** and their corresponding definitions, and propose methodologies for measuring them;
- **Establish baseline values for impact, effect, and outcome indicators** in line with the Project's logical framework, including detailed information on household behaviors, attitudes, and practices;
- **Inventory existing public water points** using forms taken from MEAH's national procedures manual;
- **Inventory water and sanitation infrastructure in institutions**, including all schools and health centers; and
- **Map the WASH sector in the three regions** (actors working in, with, and for the WASH sector, as well as services offered by these actors).

The results and main recommendations helped establish strategies and approaches for achieving the Project's objectives, and demonstrate the relevance of interventions.

ANNUAL SURVEYS

The aim of the annual survey was to propose new directions for the Project by determining the values of the Project's impact indicators, as well as other indicators to be collected annually as defined in the monitoring, evaluation, accountability, and learning plan following the Project's various interventions.

Specifically, the annual survey sought to:

- Estimate the value of impact indicators and other annual project reporting indicators for which data is not routinely collected;
- Propose an adjustment of water access indicator values in line with USAID-approved methodology; and
- Make evidence-based programmatic recommendations (derived from indicator value estimates).

The PMP mandates the collection of impact indicators (including those related to drinking water access) through annual surveys. However, impact was not measured during the first three years of the Project. A mid-term review highlighted the importance of this activity, and it was completed at the end of FY 2021 and FY 2022.

To determine the indicator of drinking water access, a routine data system was used to record the number of household members with social or individual connections to the water system. Additionally, a method called "roof counting" was used to count individuals with access to communal water points such as kiosks, monoblocs, and sanitary blocks or MultiPECs. However, some users were not accounted for by either method. The annual survey was used to estimate the number of households and individuals with access to these connections that were better suited to the indicator's title.

MID-TERM EVALUATION

USAID commissioned a mid-term evaluation in FY 2021, which was conducted by WASH Pals from April to August 2021. The evaluation's goal was to determine whether the Project's approaches and activities were effectively contributing to improving equitable and sustainable access to WASH services. The evaluation sought to answer the following five evaluation questions (EQs):

- To what extent is the design of the RANO WASH program adapted to the water, sanitation and hygiene challenges in the target regions and communes?
- To what extent has the RANO WASH project strengthened governance capacities to improve sustainable service delivery at several levels?
- How successful have RANO WASH's various private-sector approaches been in providing water services and extending access to sanitation?
- To what extent have RANO WASH activities succeeded in creating demand, activating demand and ensuring the use of WASH products and services in the regions and communes of intervention?
- What implementation approaches should be prioritized in the future for the last two years of the WASH RANO and by the WASH sector?

The report presented results and recommendations[51] relevant to the Project that confirmed findings from the Mid-Term Review and provided interesting reflections; appropriate adjustments were made in subsequent annual work plans.

MID-TERM REVIEW

The Mid-Term Review was originally scheduled to take place in FY 2020, but due to a delayed start and the COVID-19 pandemic, it was carried out in FY 2021 instead. The Mid-Term Review was designed to be a reflective workshop for the internal project team aimed at improving program quality and strengthening stakeholder ownership during the latter half of the Project's implementation.

During the review, the status of activities was assessed by region, allowing for a comparative analysis of the system approach in each area. The self-assessment conducted by each region highlighted their strengths and weaknesses in relation to the WASH system approach and building blocks. Table 6 shows the main results of these self-assessments. RANO WASH's Mid-Term Review report is available on the Project website.[52]

[51] https://drive.google.com/file/d/1alzj7rNJHfyQa1GKThxyiwYMDd2QYC79/view
[52] https://care.mg/ranowash/wp-content/uploads/2023/07/RANO-WASH-Mid-Term-Review-Report-EN.pdf

Table 6. Summary of regional self-assessment results in relation to the implementation of the system approach

Former regions	Best-performing blocks	New regions	Best-performing blocks
Atsinanana	 Service delivery and behavior change	Vakinankaratra	 Coordination and integration
Alaotra Mangoro	 Coordination and integration	Amoron'i Mania	 Institutional arrangements
Vatovavy Fitovinany	 Coordination and 74 integration	Haute Matsiatra	 Coordination and integration

Generally, the regions were performing well in coordination and integration. Additionally, the results detailed in the Mid-Term Review report showed that the majority of regions needed to improve their funding, service delivery and behavior change blocks over the next 12 months. The Mid-Term Review proved to be a rich vein of valuable insights for the Project and—combined with the external evaluation—not only served as a learning event for internal staff and external stakeholders, but also led to adjustments of the Project implementation plan.

Final Evaluation

As planned in the PMP, the Project underwent its final evaluation in the last year of implementation. The evaluation was conducted by an international consultant; the report was submitted to USAID in April 2023 and approved in July 2023.

This final evaluation aimed to:

- Examine the overall progress of the RANO WASH Project toward achieving its objectives (particularly how it has affected the WASH ecosystem and people's access to WASH services, as well as their behavior regarding demand for WASH services and practices);
- Review, analyze, and evaluate the RANO WASH Project's design, effectiveness and sustainability; and
- Provide specific recommendations for future activities and directions that USAID may wish to explore with regard to WASH in Madagascar.

Field study was conducted in a number of targets (see Figure 19 below) at the level of the 120 communes of the seven intervention regions.

Figure 19. Types of final evaluation targets

The evaluation sampled different sets of participants depending on the type of survey conducted. For the qualitative survey, the participants included communal authorities, community leaders, water utility managers, Project staff, ministry staff, women's groups, men's groups, and other groups of people identified as vulnerable. Meanwhile, the quantitative surveys targeted beneficiary households in the intervention zones.

The final evaluation focused on answering five key questions:

- To what extent has the RANO WASH project been appropriate and relevant for strengthening the WASH system and access to WASH services?
- To what extent has the RANO WASH project affected Madagascar's overall WASH system across the basic pillars?
- To what extent has RANO WASH contributed to the population's access to WASH services and to positive changes in attitudes and behavior among citizens?
- To what extent can we expect the RANO WASH program to be continued or extended by communes, the private sector and local coordination mechanisms after its completion? What evidence is there of this sustainability?
- What are the most important lessons learned, best practices and challenges for the success of the RANO WASH program?

The Final Evaluation Report is available on the Project website.[53]

[53] https://care.mg/ranowash/wp-content/uploads/2023/07/RANO-WASH-Final-Evaluation-Report-April-2023.pdf

3.5.4 Accountability Mechanism

To meet USAID requirements and ensure accountability to the government and Project participants, the Project has integrated accountability into its monitoring and evaluation system. The indicator for Strategic Objective 1 is the number of intervention communes with functional accountability mechanisms for water, sanitation, and hygiene, identified as 1.4.2.1. This approach has been implemented in all the Project's activities and interventions.

The Project has adopted accountability mechanisms already utilized by other projects, including the ideas box, community meetings, community scorecards, and the Green Line. These tools were introduced and implemented at the community level, and communities were given the freedom to choose the mechanism that suited them best.

The Green Line was first used by the CRS Faranano Project and was piloted in Atsinanana Region (Ilaka Est, Ampasimbe Onibe, and Foulpointe communes) as part of the RANO WASH Project in FY 2019 Q1. The Project later extended its use to its other intervention regions in FY 2019 Q2, updating the poster and developing a user guide and protocol.[54]

For TELMA users, the phone number used was 364, whereas for ORANGE users, it was 032 32 037 07. This free line allowed Project beneficiaries and community members to anonymously report their concerns, queries, and comments. By providing feedback and response mechanisms, community members were able to express their opinions and engage in productive conversations with project staff. These mechanisms were critical in addressing the changing needs and expectations of male and female beneficiaries alike, as well as in ensuring accountability and learning for the agency.

3.5.5 Learning and Knowledge Management

The Project has developed a learning system to enable the recognition and measurement of various learning outcomes from diverse activities, particularly in relation to the Project's three main strategic objectives. The learning system features distinct themes for each objective. The most recent version utilized in FY 2023 Q1 can be viewed on the Project's website: https://care.mg/ranowash/.

The Project team has created a framework to better monitor learning activities. The framework covers key themes that align with strategic objectives and was updated during the week of September 19–22, 2022. The Project has achieved two indicators in the IPTT and surpassed the target with 38 learning products. This equates to 190 percent of the Project's

[54] https://drive.google.com/file/d/1OLuhQ86x59OR-3W2k9QHM97EXB3XGml7/view

target. Furthermore, 17 organizations have used the knowledge and products generated by the RANO WASH Project (113 percent of our initial target).

Moreover, learning was ongoing during the implementation of activities in each region. This continuous learning process enabled the team to capitalize on success stories, best practices, lessons learned, and innovations. Most of these achievements have been shared within the Project team, while others are being further developed into more concrete products to be disseminated and shared with other stakeholders.

LEARNING EVENTS, CAPITALIZATION SEMINARS

The Project included various learning activities, such as learning events, as well as a mid-term review. Additionally, a capitalization seminar was held from September 19–22, 2022, which focused on 12 themes and numerous sub-themes. The seminar was disseminated to various targets including local, communal, regional, national, and international audiences.

WEBINARS AND LEARNING WORKSHOPS

Various workshops and webinars have been held as part of the Project's learning process at regional, national, and strategic objective levels.

3.6 SUSTAINABILITY

The RANO WASH project was deliberately framed according to a systems-strengthening approach, with the understanding that ensuring sustainability for WASH services – those directly catalyzed by RANO WASH investments as well as WASH services nation-wide – would require strong and capable WASH systems, including policy frameworks and coordination mechanisms, capable and motivated public and private-sector actors at all levels, informed decision making, improved access to finance, and a deliberate focus on gender-equity and social inclusion. In this way, the RANO WASH program sought specifically to maximize sustainability of project outcomes and WASH services inside and outside of the project, from its outset.

The RANO WASH Final evaluation sought to examine the extent to which the RANO WASH project has contributed to strengthening each of the WASH Systems Building Blocks, and to what extent outcomes could be expected to be sustained and scaled by communes, private sector and local coordination mechanisms after the project end. While we encourage an ex-post evaluation of RANO WASH project outcomes (and CARE commits to conducting an ex-post evaluation in 2-5 years) – the final evaluation suggests the following factors that contribute favorably to sustainability of water, sanitation, and hygiene outcomes achieved under RANO WASH:

- **Increased collaboration between the public and private sectors in water supply, management and service delivery as demonstrated by 40+ operational PPPs currently providing services**. The RANO WASH PPP toolkit provides commune governments with concrete contracting mechanisms to replicate the PPP model in further communes. To date, multiple communes have sought and contracted with private water operators and established PPPs on their own – demonstrating the potential for scale even after RANO WASH ends.
- **Capacities of commune governments in RANO WASH intervention regions have been strengthened significantly**. Communes have developed WASH sector development plans (PCDEAH) and demonstrated increased resource mobilization to support the WASH sector. 57% of RANO WASH communes

demonstrated substantial increases in commune WASH budgets, which suggest greater availability of funds to scale and sustain WASH services.

- **Increased coordination and established coordination mechanisms between national, regional, and commune governments**. The RANO WASH project's support has significantly improved coordination within the WASH sector. Communal and regional levels have seen enhanced collaboration through strengthened entities like STEAH, SLC, and SRMO. These structures have successfully enabled joint planning, monitoring, and fundraising for WASH services. Notably, they've played a pivotal role in uniting stakeholders for initiatives like the Madagasikara Madio Campaign. Moreover, RANO WASH intervention regions now possess targeted objectives and action plans to transition into Madio regions, further facilitated by the seamless support and exchanges between communal and regional levels.
- **In contrast to community-based management, the PPP model ensures profit motive for private operators to sustain water services**. Additionally, capacities of water service providers have been strengthened measurably under RANO WASH, including technical and business capacities to increase performance and efficiencies, and marketing capacities to increase scale and profit – leading to more effective and profitable models for construction and scale of water services. In addition to the WSPs' capacity building, the project also played a crucial role in promoting economic opportunities within the water services sector. It facilitated connections with financial institutions and suppliers, enabling improved access to essential financial services for sustainable growth. These efforts have resulted in more effective and profitable models for the construction and scaling of water services.
- **Stronger local actors and businesses, reinforcing WASH behaviors and making sanitation and hygiene products more readily available**. RANO WASH supported and trained local masons and seamstresses to offer WASH products such as latrines and reusable menstrual pads, and strengthened capacities of local CSOs, consultation structures (SRMO), promoters and champions at commune and fokontany levels – strengthening the larger reference network and social accountability reinforcing sanitation and hygiene behaviors, as well as ensuring that adequate products and services are available to support those behaviors. RANO WASH attributes strong sanitation achievements in part to this strengthened network of actors at commune and community levels.
- **Households and small businesses have increased access to finance to enable purchases of WASH products and services**. RANO WASH supported and strengthened an extensive network of Village Savings and Loans Associations (VSLAs), which have been demonstrated as self-replicating and sustainable beyond project-based support. Nearly 35,723 persons were members of VSLA, 55% of whom invested in WASH products and services or started WASH-related small businesses. VSLAs are likely to remain in place after RANO WASH closes – continuing to strengthen access to finance for households and small businesses that help them overcome cost barriers to WASH.

Table 7 below outlines achievements and contributions in each WASH system building block after six years, as identified by the final evaluation.

Table 7. RANO WASH measured contributions to the WASH Building Blocks (adapted from RANO WASH Final Evaluation)

 ▪ MEAH leads a gender task force, which meets regularly and promotes gender and social inclusion in the WASH sector. ▪ Men, women, people with disabilities, and youth are more involved than before in consultation, decision-making, and advocacy for WASH services at commune levels. ▪ Households have adopted more gender-equitable divisions of labor. ▪ Women increasingly achieving greater representation and leadership in WASH decision-making structures. ▪ WASH infrastructure is inclusive and all community members report access	 ▪ Improved MEAH leadership of the sector ▪ DREAH and STEAH have increased capacities and are coordinating the WASH sector at regional level and commune levels. ▪ Clearer roles and responsibilities of communes and regional directorates to fulfill their mandates to provide WASH services. ▪ All WASH actors at commune level, including private sector, are active and contributing to WASH services.	 ▪ MEAH National Unit for Sector Coordination operational and improving. ▪ Communes demonstrating increased capacity for coordination with private sector ; 148 communes currently engaging with private sector for WASH services ▪ Inter-sectoral partnerships promoted
 ▪ SE&AM national monitoring platform upgraded and operating on DHIS2 platform ▪ Fokontany, communes, and DREAHs are trained on SE&AM and demonstrate more commitment to monitoring activities ▪ SE&AM is frequently updated, and data are transmitted at the regional and national levels	 ▪ Commune-level WASH plans (PCDEAHs) in place ▪ MEAH conducting performance reviews of regional and commune levels ▪ Regular joint sector review of WASH sector conducted at national level	 ▪ Commune governments increase coordination for revenue generation; 57% of RANO WASH communes increased public budgets for WASH ▪ Established contract mechanisms and increased commitment of water service providers to invest in construction and rehabilitation of water systems, yielding a total of $659,853 in additional investments ▪ VSLA established and strengthened, increasing access to finance for households and small businesses and enabling 35K in loans and 31K in savings

		to support WASH purchases and businesses
 • PPP model established, adopted and demonstrated by commune governments and WSPs; 40+ operational PPPs providing water services to 312K people in RANO WASH communes • Commune government and stakeholders aligned behind Madagasikara Madio Campaign, and using effective behavior change approaches founded in formative research, resulting in 5,543 communities certified as Open Defecation Free and more than 700,000 people with access to a household toilet. 95% of communities certified as ODF have remained ODF. 34% of households have a handwashing station with soap and water.	 • Functional accountability mechanisms in place at commune level, enabling local authorities to be more attentive and responsive to communities' expectations and needs • Increased self-efficacy of commune governments in processing and responding to feedback	 • Delegation contract signed by private companies and commune governments describes core responsibilities for environmental protection • Communes have defined watershed protection perimeters prior to water system construction • CSOs are leading watershed protection and reforestation efforts

4 CONSTRAINTS AND CHALLENGES

RANO WASH faced and overcame a number of challenges during implementation, including the COVID-19 pandemic. Below is a summary of key challenges confronted:

CONTEXT

- **Climate events (tropical cyclones, floods):** The project has been affected by multiple cyclone seasons, which usually runs between November and March in Madagascar. From January 2022, the Project was severely affected by three tropical cyclones with severe impact on the eastern coast of Madagascar. While there was no significant damage to the Project water infrastructure, some water systems were affected by the floods and had to be repaired by WSPs. The project has produced a website-available report outlining measures to strengthen hybrid dams, drawing from lessons learned after the Morarano Chrome dam failure due to flooding. In 2022, floods affected about 60,000 hectares of rice fields, which will result in a below-average harvest in May, negatively impacting both the farmers' livelihoods and food insecurity levels in the country. As a result, households placed higher priority on the rehabilitation of their homes and fields instead of spending on WASH services.
- **COVID-19** The uncertain nature of the pandemic posed significant challenges for all those involved in projects as it caused delays in making decisions. The launch of the tendering and contracting process for new water systems was postponed by three months due to the lockdown, administrative offices being closed, and prioritizing the COVID-19 response of the MEAH. The Project adjusted its methods to ensure business continuity and took advantage of the opportunity to prioritize access to WASH services in response to the pandemic. National and local travel restrictions caused several activities to be delayed, such as data collection to complete the WMDP, MEAL data collection, and the transportation of equipment for the water systems.

GOVERNANCE / ENABLING ENVIRONMENT

- **Changing Ministers and Directors at MEAH/DREAHs:** Frequent changes in personnel at the MEAH level at the regional and commune levels following the change in government complicated and slowed ongoing activities, particularly related to institutional frameworks and processes, coordination, and buy-in. The project worked closely with each directorate's entire team, at national and regional levels, to transfer essential skills to all team members, not just the directors. One of the most significant changes is an increase in the MEAHs interest to involve the private sector in implementing PPP tools for drinking water services.
- **Decentralization challenges and limited government budget for the WASH sector.** In Madagascar the financing gap for WASH remains high and the MEAH has insufficient budget to support WASH needs and key sector functions (e.g., sector review and operationalization of SE&AM). This limits the accountability of MEAH staff to fulfill their mandate and ensure continuity of sector achievements – which makes the MEAH dependent on partners and external funding. Decentralization challenges compounds these issues and creates a context in which roles and responsibilities are devolved but human and financial resources are not sufficient and there is limited institutional capacity and professionalization of MEAH and communes. This situation was a challenge for the RANO WASH system-

strengthening approach. The MEAH and communes faced challenges in mobilizing domestic funding for day-to-day activities, relying only on the project to support these activities. The Project continued to influence the public and private sectors on the added value of PPP for user-centered, inclusive, and sustainable WASH services. Communes have received training on how to increase fiscal mobilization and engage with local private operators, which is showing positive results. The Project also assisted DREAHs in organizing events like the water fair and meetings with various stakeholders like Chambers of Commerce and Industry, GEM/GFEM, banks, and MFIs to promote WASH business opportunities. But most importantly, the Project contributed to advocate around the importance of strong government leadership for successful private sector engagement.

- **Lack of resources to pay water bills by schools and health centers.** This created conflict between the institutions, municipalities, and WSPs. The lack of resources is a blockage because the actors do not know who should pay since it is not included in the institutions' budget. This could be explained by the lack of clarity on who should pay, the lack of collaboration between the communes and the institutions, and the difficulty in the decentralization process with the parallel existence of deconcentrated technical services, creating an institutional blur. This confuses the allocation of budgets for WASH services at the institutional level and the communes' accountability to WASH stakeholders, especially when they encounter problems with WSPs.

BUSINESS ENVIRONMENT

- **The need for paradigm shifts regarding private sector engagement in WASH services**: Engaging the private sector in providing WASH services requires that stakeholders consider the private sector as a development partner and understand and adopt a market-based mindset. The need for a paradigm shift started with the project staff, who were more familiar and comfortable with community-based approaches and often 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 and were at times slow to engage in this paradigm shift. The project invested significant effort to engage the MEAH in discussions on private-sector roles and engagement in the WASH sector, link regional and commune governments to private sector actors, and test and scale PPP models.
- **Balancing equity and profitability**: it's crucial to recognize that vulnerable populations already face difficulties even before private operators enter the picture. They had to cope with high costs for unsafe water, leading to restricted consumption and adverse impacts on well-being and health. While daily consumption-based costs might not be substantial once private services are in place, the initial connection fee is a major hurdle, particularly for more vulnerable communities. The project developed solutions that balanced equity and profitability to ensure access to more vulnerable communities, including social connections, automatic water kiosks, flexible payment options, and VSLAs. Our commitment to narrowing disparities underscores a sustainable and equitable water access approach, aligning social impact with economic viability.
- **Transitioning from community to private management:** The transfer of community management of water services to private management was a long process

that faced several challenges. Water management committees are often reticent despite deficiencies in services and in some cases NGOs themselves are managing systems. There are also different social conflicts around the infrastructures (e.g., water management model and those who have allocated money for the infrastructure) and few people and entities are familiar with the laws in place for communal project management and private management. RANO WASH worked to improve inter-ministerial collaboration and ensure a shared understanding of laws and approaches. Additionally, RANO WASH strengthened authority of relevant officials, including the Governor of the Region, the Chief District, the Commune, and particularly the MEAH and DREAH. The team developed guidance tools to help government and practitioners navigate his important challenge in Madagascar.

- **Water quality testing**. The analysis of water quality by the Institut Pasteur of Madagascar was limited during and after the pandemic because it was difficult to mobilize the IPM for water analyses that required on-site travel. IPM has resumed its normal pace, but the receipt of test results remains delayed. Water operators conducted and continue to conduct analyses on their own, and RANO WASH strengthened monitoring of and support to WSPs to ensure systematic water quality monitoring and treatment.

PROGRAM IMPLEMENTATION

- **Slow Project Start-up period:** The need for stakeholder engagement and rapid recruitment at scale during the first six months of the project delayed the implementation of project activities in the first three regions until the fourth quarter. Lessons learned from the initial phase informed a swifter and more efficient set up of regional offices in Vakinakaratra (FY2019), Amoron'I Mania and Haute Matsiatra (FY2020).
- **Commune targeting at scale:** The project faced a significant challenge in its third wave of commune selection, particularly in Amoron'i Mania and Haute Matsiatra, where the selection and engagement of intervention communes led to implementation delays. However, this setback transformed into an opportunity. Through the adoption of a demand-led methodology to choose 250 communes, the project ensured communes were well-prepared to express their unique needs and had cultivated a strong collaborations with local partners. As a result, the project effectively utilized these challenges not only to strengthen its implementation but also to cultivate impactful collaborations that extended to vital communal partners and dynamic private sector alliances.
- **Limited indicators to monitor gender and social inclusion:** RANO WASH's indicators to monitor changes in gender and social inclusion remain limited. RANO WASH introduced and socialized CARE's Social Analysis and Action approach, which allowed the project to identify social barriers at the community level, and provided simple tools to measure change against these constraints.
- **It is still difficult for stakeholders, including project staff, to reconcile behavior change activities with the use of WASH services.** The traditional conception of behavior change as information and communication persists in individual and collective beliefs, sometimes making it difficult to implement more innovative strategies (e.g., market-based approaches) at different levels, whether with other development stakeholders, public institutions, or private sector actors. RANO WASH's collaboration with iDE highlighted the importance of linking behavior change

with availability and use of WASH services. This requires marketing that targets early adopters, including VSLAs, and leverages these groups to influence neighbors and relatives to create a spillover effect. Strong sanitation results under RANO WASH demonstrate the effectiveness of the approaches and the importance of an integrated approach.

5 LESSONS LEARNED AND RECOMMENDATIONS

Throughout RANO WASH's implementation, several valuable lessons were learned and documented through routine monitoring, staff reflections, and research, as well as in quarterly reports submitted to USAID, the Mid-Term Review and Final Evaluation reports. The narrative below aims to summarize and synthesize key lessons learned and offer recommendations to assist future WASH programs in similar contexts.

While several important high-level lessons and recommendations are articulated below, many of these lessons and recommendations are granular and specific, in an attempt to convey actionable recommendations to assist future WASH programs. Lessons and recommendations are organized thematically.

THEME 1. System Strengthening Approaches

LESSONS LEARNED

- **1.1 Establishing and enhancing the WASH systems approach focal points within MEAH has expedited the alignment of this concept at the sector level.** Embracing a systems approach signifies a paradigm shift for the WASH sector in Madagascar. This transformation must commence with MEAH, as the primary entity overseeing the sector. The training and mentoring provided to the WASH systems approach focal points have equipped them to guide the DREAH team in employing monitoring and evaluation tools rooted in the systems approach and to effectively communicate this comprehensive perspective to stakeholders within the WASH sector.
- **1.2 The use of a systems approach has significantly expedited the attainment of ODF status for Communes.** Initially, RANO WASH's focus centered on establishing ODF communities, but over time, it became evident that this approach yielded scattered accomplishments with limited large-scale effects. In response to the government's ambitious Madagasikara Madio initiative, there became a clear need to engage governments at all tiers, directing attention towards larger ODF Regions and ODF Communes. This prompted the strategic alignment of SRMOs and SLCs, each defining their objectives and mobilizing resources to contribute to Madagasikara Madio. As a result of this broader mobilization, nearly 1M people now live in ODF communes and communities in RANO WASH regions alone.

RECOMMENDATION

- **1.1 Use a systems approach to evaluate progress at project and sector levels.** Future initiatives should use a 'building blocks' framework to evaluate progress within the WASH sector as well as project contributions to sector goals. Building blocks frameworks simplify multiple dimensions of systems change, and ensure attention to

critical systems components that might go otherwise overlooked. By regularly using a building blocks framework, WASH systems stakeholders could be empowered to proactively address underestimated factors and cultivate a habitual, reflexive practice of systems thinking.

- **1.2 Plan for significant front-end investment when using WASH systems strengthening approaches.** The complex and dynamic nature of WASH systems means that systems strengthening approaches can seem intimidating. To demystify the system approach, a time investment is needed to help project staff (with a focus on field-level staff) and government teams and stakeholders better understand and apply principles and strategies to their day-to-day work. This includes holding system strengthening workshops, "actors and factors" mapping exercise, yearly building block benchmark exercises, tool kits and guidance documents, and learning products that articulate the systems strengthening approach and progress. This was ongoing effort during RANO WASH that required dedicated time and budget.

THEME 2: Increasing leadership of MEAH to lead WASH sector functions at national, sub-national and local levels

LESSONS LEARNED

- **2.1 Working with MEAH teams required a creative and flexible approach to capacity building**. The transformation to a WASH systems approach had to start with MEAH, as the primary entity overseeing the sector. The RANO WASH team's capacity building plan and strategy for the MEAH and DREAHs improved knowledge and resources through trainings and workshops, ongoing coaching and supportive supervision, equipment and financial support (i.e., co-financing consultants for sector plan), toolkits and other guidance documents, pause and reflect sessions, joint outreach to banks and financial institutions, and other opportunities for MEAH leadership like webinars and WASH Fairs. The capacity building plan was revisited during each of the three government changes to engage with new government teams in defining priorities and contribution to the sector's road map. This created a culture of mutual support between the project and the MEAH and DREAH teams, inspired government leadership and commitment, strengthened awareness of sector issues in Madagascar (e.g., private sector engagement, sustainability and sanitation), clarified roles and responsibilities both within the MEAH and between line Ministries, and led to significant changes in the MEAH and DREAH teams' capacity to lead sector functions and provide support and monitoring to communes.
- **2.2. Conducting robust mapping to understand stakeholder roles and strengths in the WASH ecosystem was key to maximizing project outcomes.** The RANO WASH team found that spending time to robustly map and understand all of the WASH ecosystem stakeholders, including public, private, community and civil society stakeholders, what each of them could offer, their motivations and level of engagement to achieve WASH outcomes was key to forming effective coalitions and defining sustainable pathways for success – both for the MEAH and for the project. Ensuring time at project start-up to conduct or refresh a comprehensive stakeholder analysis can help identify the ecosystem's central actors, their roles, motivations, and unique connections, and resulting windows of opportunity.

- **2.3. Supporting and using SE&AM for the WASH sector monitoring and evaluation is key to having data for sector planning.** RANO WASH supported the MEAH in revitalizing the SE&AM to have timely data and use these for sector decision-making. To date, the SE&AM is fully functional on the DHIS2 platform, and the communes consistently report on SE&AM. However, implementers should support mechanisms for regular feedback from national level to regions and communes to improve the system's functionality and how data are used to inform decision-making in the WASH sector at all levels (central, regional, and communal).
- **2.4. COVID-19 demonstrated the importance of, and successful models for coordination** within the WASH sector and across sectors. This increased coordination had significant effect on WASH investments and practices. For example: during COVID-19, the WASH Cluster meetings involving the other sectors succeeded in developing an action plan and ensuring its rigorous follow-up. These practices strengthened collaboration between MEAH, MSP, MEN and MID, with WASH actions required during the epidemic in schools, health centers and the involvement of Communes to coordinate these actions at communal level.
- **2.5. Performance contracts and GoM coordination between technical services and commune governments can fill gaps, but national framework documents are still needed.** Even in context of gaps in national policy framework documents, RANO WASH concentrated on supporting the MEAH, DREAH, and communes in implementing MEAH performance contracts for 2023. RANO WASH teams also assisted the MEAH to translate Madagascar Madio objectives at the regional level and rally stakeholders for annual planning, progress monitoring, and regional sector reviews. While this support was very practical, there is a continued need to strengthen the policy framework that governs collaboration between MEAH, DREAH, and communes in order to yield better results toward the government's initiatives. The upcoming presidential election may be a chance for WASH stakeholders to renew interest in creating updated framework documents.

RECOMMENDATIONS

- **2.1. Continue to invest in strengthening and scaling the use of SE&AM.** Sector partners should focus on supporting the scalability of SE&AM, making it a flexible tool accessible to all players in the sector. Future efforts should also focus on strengthening MEAH, DREAH, and commune capacities to use SE&AM regularly and effectively for decision making.
- **2.3. Strengthen MEAH capacities to lead SBC.** Frequent changes in the ministry's structure and management limited the MEAH's ability to effectively lead behavior change activities. For example, the responsibility of hygiene promotion and sanitation was shifted between different departments multiple times, which did not allow for a long-term plan for behavior change activities. The MEAH Communications Department also had a limited perspective, believing that behavior change was solely achieved through communication campaigns. Future efforts should focus on strengthening the MEAH's broader capacity for SBC to create a more favorable environment for scaling effective SBC + market-based approaches.

THEME 3: Communes as an important entry point to ensure permanent and accountable WASH services

LESSONS LEARNED

- **3.1. Domestic funding for commune WASH investments can be increased, through collaboration between national, regional, and communal stakeholders.** One of the main successes of the RANO WASH project is the commitment by Commune governments to increase public WASH budgets, resulting in more than $2M in public funding for WASH in RANO WASH implementation communes. This was achieved because of the close collaboration of all actors, including the Ministry of Finance; the MEAH; communes; and other local governance actors, to increase fiscal revenues and properly plan and budget for WASH needs.
- **3.2. Strengthening capacities of commune government as central actors in the WASH ecosystem is key to ensuring sustainable outcomes.** Per Madagascar's decentralization policy and process, communes are supposed to play the central role in local development, including WASH access and service provision. However, communes often have limited budgets, capacities, or access to training. RANO WASH found that placing communes at the center of its strategy and strengthening commune capacities, including capacities to manage WASH sector coordination mechanisms and enhance inclusive planning, was key to ensuring WASH outcomes.

RECOMMENDATIONS

- **3.1. Future projects should continue to focus on increasing public funding for WASH, by strengthening coordination.** RANO WASH demonstrated that public funding for WASH can be increased and more effectively utilized. This work can be deepened and scaled to increase public share of WASH investments. Effective efforts should focus on increasing fiscal revenue through tax collection, enhancing the planning and budgeting skills of commune actors, and increasing coordination between the Ministry of Finance, the MEAH, communes, and local governance bodies.
- **3.2. Behavior change strategies must be endorsed by communes, communities and DREAHs.** Sanitation and hygiene should be led by local authorities as critical public services for maintaining health and well-being, and should be included in local WASH plans and budgets. Future efforts should continue providing assistance to DREAH, communes, and communities in planning and budgeting for sanitation and hygiene promotion, and enabling authorities and communities to sustain these activities.
- **3.3 Future projects should strengthen collaboration with the Ministry of Decentralization (MID) to support effective decentralization in the WASH sector.** RANO WASH successfully strengthened the capacity of Communes to assume the role of "*Maître d'Ouvrage*." However, Communes are not receiving the necessary resources to fulfill their roles; this is exemplified most clearly in insufficient budgets for WASH services in schools and health facilities. Future efforts should engage the MID to ensure that MEAH/DREAH have fully accepted the Commune's role as the contracting authority for WASH services, which will in turn increase confidence of private sector actors to make financial commitments in the WASH sector.

Picture 16. Exemplary Leadership to ensure access to safe drinking water: The Mayor of Amparafaravola showed exemplary leadership during a difficult time when the Amparafaravola water system's WSP "Constructor - Co-investor - Manager" failed to fulfill their commitments. To ensure uninterrupted water services, the mayor launched a competitive bidding process to complete the construction and improve service facilities. With the help of RANO WASH's technical support, the mayor's efforts were successful and earned him an invitation to the DREAH. This signifies a great achievement and the beginning of a new era for the water system under Rano An'Ala B's stewardship.

THEME 4. Enabling environment for private sector investment

LESSONS LEARNED

- **4.1. Contracts serve as a useful guarantee to lock in private investment .** In the regions where delegation contracts were signed after regional WASH fairs, some private companies invested in multiple communes. However, when such a contract or similar guarantee was not provided, private companies were reluctant to invest their funds and connections between commune governments and potential service providers were lost. Supporting governments to issue contracts and provide this guarantee (alongside an appropriate training package for potential service providers) can help secure investment from service providers.
- **4.2. Encouraging financial institutions to offer loans for water and WASH services as commercial products is vital, and a short amortization period is a key factor in achieving this.** During the project implementation, RANO WASH observed that financial institutions tend to view loans for water and WASH services as commercial products, especially if the repayment period is kept short. Guarantee funds deposited with banks can be a helpful incentive for them to approve loans for businesses.

RECOMMENDATIONS

- **4.1. Future efforts should facilitate in-depth analysis of market conditions to support WSPs to properly execute business plans**. This includes identifying various operating parameters such as indirect competition in the water services industry, low household water consumption, and service prices. Understanding these parameters on a site-by-site basis is essential to ensure that WSPs can grow their customer base and their businesses can be profitable.
- **4.2. Accelerate the startup period for businesses through in-kind support and training.** Cash flow is essential to WASH service provider viability, as shown in Annex 24. A prolonged ramp-up leads to heavy losses, discouraging banks and WASH businesses, particularly new businesses that can't leverage other investments. Training companies early in marketing and management skills, and supporting them to increase users rapidly during the start-up stage is essential to their sustainability.

THEME 5. How to professionalize WASH service providers

LESSONS LEARNED

- **5.1. Behavior change must be accompanied by improved access to and use of services.** RANO WASH reinforced previous learning, that good behaviors cannot be sustained without available services. In particular, handwashing with soap requires available water. Therefore, behavior change strategies must go beyond promotion of behaviors and tackle infrastructure and product barriers that prevent individuals and households from practicing those behaviors. Including local water operators and WASH entrepreneurs as key agents in behavior change, and supporting them with marketing and customer engagement strategies can advance both access and reinforce behaviors.
- **5.2. Small businesses that provide WASH services to households and communities do contribute to uptake and maintenance of WASH behaviors**. RANO WASH trained local seamstresses and masons, facilitating access to the necessary services and products for proper hygiene practices. These businesses, though small, did contribute significantly to increased and sustained hygiene and sanitation practices, and constituted an important element of the supportive network to sustain behaviors. This also created opportunities for small business owners to expand their operations, ensuring the sustainability of these important services and products.

- **5.3. Community volunteers served as important local promoters, but it wasn't easy to convert them to paid positions**. Initially, RANO WASH planned to increase income of local promoters by connecting them with water operators and WASH entrepreneurs, and training them to become sales agents. However, the plan did not push through due to the managers' need for additional support, as described in the SO2 section of this report. As a result, only a few local promoters were able to partner with local masons, seamstresses, or managers, which was an unsuccessful outcome for the Project. This activity demands private operators to have marketing and sales strategies in place, and local promoters to possess excellent sales skills. Consequently, this model took longer than expected to materialize.

RECOMMENDATION

- **5.1. Support adoption of professional management technologies**: Most companies do not take risks in identifying new management technologies but seek to develop simple and less expensive models. Future efforts should consider linking suppliers of new management technologies with WSPs to help them meet the needs and challenges of water utility management.

THEME 6. How to refine, adapt and scale PPP and PPP+ models

LESSONS LEARNED

- **6.1. RANO WASH supported and encouraged communes to engage the private sector in the WASH sector through PPPs.** With the rate of access to water services still low, Communes and communities are still waiting for infrastructure construction projects. Although the project alone cannot address all these unmet needs, RANO WASH supported communes more broadly to scale access to clean water, including tax generation schemes, elaborating communal WASH plans (PCDEAHs), and helping commune governments and citizens to identify repairs and rehabilitations they can fund on their own. RANO WASH wove these new strategies into the PPP process, creating a more holistic and sustainable approach to addressing the challenges of low water service access, and fostering active engagement from commune governments and citizens in the WASH sector.
- **6.2 Financial institutions and potential investors can be convinced of the WASH sector's economic potential.** RANO WASH organized events, including webinars, meetings, fairs, and exhibitions to inform financial institutions and potential investors of the viability and bankability of WASH businesses. As a result of these events, WSPs, banks, and microfinance institutions were linked to ensure that WASH businesses could access sufficient funding when needed to support construction and rehabilitation activities. In addition, RANO WASH strengthened links between WSPs and equipment and materials suppliers so that the latter adopted payment facilities adapted to the needs of WSPs. However, more needs to be done to demonstrate financial readiness and loan potential of WASH businesses to financial institutions and investors.

RECOMMENDATIONS

- **6.1. Adapt the tendering process and criteria to anticipate the effects of prices on operations.** This involves prioritizing long-term viability in the tender scoring, even if it means higher tariff prices. Additionally, we recommend providing potential WSPs with training sessions before the tendering process to enhance their ability to create more precise and adaptable business plans.
- **6.2. Advocate for higher tariffs, using evidence.** The Project's analysis of WSP operations indicates that water tariffs are too low to ensure long-term viable businesses, and lower than household's are willing to pay. WSPs' profitability is often only enough to ensure resources necessary to operate the system, but not enough to sufficiently exceed the break-even point. As a result, WSPs are unable to obtain loans to create new water systems. Public authorities have the most significant influence on tariff rates, and through a lack of understanding, often negotiate for the lowest tariffs on behalf of their constituents, inadvertently damaging the long-term viability of the WSP the services it provides. Future projects should continue to advocate with public authorities for

increased tariff rates based on more robust technical studies and business plans, and stronger analysis of household willingness and ability to pay for water services.

- **6.3. Enhance the company selection process and diversify the profiles of Water Service Providers**. Currently, the selection of WSPs is limited to those who can fulfill the roles of "Manager-Investor-Builder," as determined through an expression of interest and call for tenders. However, this approach can be inflexible in areas where the market has less potential. To increase the success of WASH projects and cater to markets with varying potential, we recommend enhancing company selection practices and diversifying profiles within the Public-Private Partnership (PPP) framework. Recognizing that different contexts require different expertise, greater flexibility in the selection process should be introduced. This will allow a wider range of companies to participate, not just limited to the WASH sector. By tailoring the scope of potential participants based on the specific context and offering targeted capacity-building support, the model can attract stronger and more varied companies. This will improve project outcomes and facilitate access to commercial loans for implementation. This strategic shift will foster innovation and align with the goal of sustainable water and sanitation solutions for all.
- **6.4. Strengthen PPP+ models.** RANO WASH developed PPP+ models in an effort to reach smaller, more remote communities and make small-scale service provision more profitable by leveraging economies of scale. Future efforts can build on this work, supporting WASH service providers to develop more efficient business models tailored to different customer segments, and grow efficiently by forming strategic partnerships.

Picture 17. Workers from Lova Velu enterprise does a meticulous job in the installation of reinforcing bars, Morarano Chrome water system Alaotra Mangoro

THEME 7. WASH service delivery models tested to scale services

LESSONS LEARNED

- **7.1. Water kiosks can efficiently expand water services to unserved communities but require ownership of water system managers**. In Fitovinany, WSP managers showed great interest in automated water kiosks as a way to quickly expand basic services to new customers and collect data on water use. Managers collaborated closely with the kiosk supplier to enhance their WSP management and scale strategies. Once kiosks were operational, word spread quickly and people started using the services without waiting for formal communication. This served as introduction to paid and improved water services for many new customers. However, while the kiosk water distribution is automated, some minor maintenance tasks are necessary to ensure continued functionality, such as monitoring solar panels for dust buildup, collecting deposited coins, and checking battery levels during low sunlight periods. These tasks are straightforward but require the attention of the water system managers and regular travel to kiosk sites, which in turn requires that managers have sufficient financial incentive to maintain them. Managers must also be vigilant of water quality and reliable quantity, which can impact use of kiosks.
- **7.2. Expanding water services to rural households requires a range of service offerings.** RANO WASH used a flexible approach to water supply, with private connections for those with enough money to afford it, social connections for those who could pool their resources to access clean water, and collective water points for vulnerable households. RANO WASH also implemented a strategy of automatic water kiosks as an alternative solution before households subscribed to more comprehensive services. This flexible approach helped ensure that a majority of groups in targeted communities had access to several service choices for clean and quality water for their household needs.

RECOMMENDATIONS

- **7.2. In planning for future projects, it would be beneficial to continue developing the market-based sanitation model based on the research findings from iDE**. RANO WASH collaborated on research with iDE and piloted a market-based sanitation approach that showed that solely focusing on the cheapest basic sanitation solutions may actually hinder the purchase and adoption of sanitation products. Through prototype testing with iDE in Lokomby, RANO WASH discovered that there are valuable opportunities in introducing high-quality, higher-priced products, like suction toilets, that cater to changing demands. The prototype also highlighted the significance of evidence and innovation in advancing market-based sanitation.
- **7.3. Future projects should prioritize water systems that adhere to and consistently comply with environmental and water quality standards at both the national and commune levels.** Doing so will contribute to the creation of more environmentally sustainable infrastructure and services, and cultivate heightened consumer confidence in and demand for water services that stimulates further expansion of services.

THEME 8. Gender Transformation through WASH

LESSONS LEARNED

- **8.1. A gender transformative WASH approach must tackle structures, relationships and agency at multiple levels.** To ensure that WASH programs have maximum benefit for women and girls**,** it is important that programs have a gender approach that can change norms such as taboo around menstrual hygiene, limited participation of women and girls, youth in community debates and decision-making bodies, and non-access of youth and women to jobs that they aspire to.
- **8.2. Menstrual hygiene education and access must be holistic:** The success of RANO WASH's approach underscores the vital importance of comprehensive menstrual hygiene education involving both men and women. Engaging the entire community in awareness campaigns not only shifts social norms but also highlights the significance of services and products like showers and sanitary pads. This lesson emphasizes the need for collective efforts in promoting understanding, empathy, and open discussions about menstruation.
- **8.3. Promoting economic empowerment is crucial for achieving gender equality and empowering women and youth.** A key aspect of this is job creation, particularly in the area of menstrual hygiene. One successful initiative involved training local seamstresses to produce affordable sanitary pads. This not only made it easier for people to buy the products they needed, but also highlighted the importance of affordable and accessible options in driving behavior change. As a result, the project created more job opportunities, particularly for women and disabled individuals, leading to significant economic empowerment. This initiative demonstrates the power of community-driven efforts to provide essential hygiene products and foster economic growth and empowerment.

RECOMMENDATIONS

- **8.1. Replicate seamstresses training programs:** Projects in the WASH and Health sectors should consider replicating the approach of training local seamstresses to design, produce, and sell reusable sanitary pads. This strategy was relatively cost effective and showed success in addressing the issue of limited access to sanitary pads due to financial constraints. By providing vocational training and employment opportunities to local operators, especially young people, women and people with disability, these organizations can simultaneously promote menstrual hygiene and empower women economically.
- **8.2. Future projects should proactively engage partners in the advancement of gender and social inclusion.** Gender mainstreaming and social inclusion need to be better embodied and executed by development actors. RANO WASH established and engaged gender focal points within government partners, consortium members, and project staff at all organizational levels which helped ensure a broader gender perspective embedded at institutional levels that influenced activities throughout and beyond RANO WASH and contributed to gender outcomes beyond the scope of the project. This approach should be scaled.

THEME 9. Community engagement

LESSONS LEARNED

- **9.1. Involving communities in consultation, planning and service management strengthens the commitment of communes and service providers.** RANO WASH has played a key role in helping communes improve citizen engagement in local WASH governance. As a result, all RANO WASH intervention communes now engage citizens through community participation mechanisms such as ASUREP, SLCs, idea boxes, etc. These mechanisms are fully operational and actively support the communes in managing the WASH sector. Citizens are able to submit their comments and complaints through these structures and the tools at their disposal, which then report back to the communes and service providers to improve the WASH sector. As a result of community engagement and feedback, nearly 60% of communes increased their public WASH budgets.
- **9.2. Using a people-centric approach contributes to the success of Water PPPs across lifecycle phases.** An integral lesson gleaned from water services PPPs is the pivotal role of prioritizing people and community feedback throughout every phase of the project. By incorporating local perspectives and needs, PPPs can cultivate a profound sense of ownership and dedication within communities, transforming residents into collaborative partners rather than passive recipients. This "people first" strategy starts prior to construction with meticulous APS and APD, inviting active participation from communities, and endures through construction, fostering an environment of transparency and trust in service authorities and providers. During operations, a "people-first" approach strengthens service utilization, bolsters consistent, timely payments, and strengthens trust in service providers which helps them to grow their customer base.

RECOMMENDATIONS

- **9.1. Future projects should strengthen capacities of service authorities and providers to use people-centered approaches.** This could include training on human-centered design principles, and support service authorities and providers to better understand and adapt services to user needs and customer segments – increasing responsiveness of and demand for services.
- **9.2. Communes should engage communities through SLC, ASUREP, OSC-EAH in the development and implementation of their objectives and plans.** Future projects should support communes to strengthen and engage these structures and establish accountability mechanisms such as suggestion boxes, community forums, and Community Score Cards, that facilitate communication and build trust between local government, service providers, and communities.

THEME 10. Promoting a culture of learning and enabling linkages to regional and global dialogue

LESSONS LEARNED

- **10.1. To achieve results at scale, behavior change strategies must be informed by research that addresses the behavioral determinants that influence practice**, such as pride, sense of belonging, comfort, or financial capacity, as in the case of VSLAs. RANO WASH research activities improved the implementation quality of behavior change activities in the field by generating evidence that informed implementation through a consistent feedback loop. RANO WASH incorporated findings into activities at community, household, VSLA group, and institutional levels, which contributed to a larger impact on behavior change than initially targeted
- **10.2. Regular sharing of information is crucial for effective behavior change activities, especially at a regional level.** Regional coordination of behavior change approaches through SRMOs showed some success under RANO WASH, and contributed to strong sanitation gains in RANO WASH regions. However, national coordination is still lacking despite SCN-EAH's establishment, and MEAH leadership has not yet taken initiative to promote joint learning and sharing. RANO WASH initiated broader learning dynamics, but further efforts are needed by the MEAH and other stakeholders to institutionalize research insights, tailor findings to local contexts, and ensure effective implementation in a context that still relies on outdated practices.

RECOMMENDATIONS

- **10.1.Conduct systematic learning and adaptation among project staff as a critical first step to effective sharing and influencing of practices externally.** In RANO WASH, purposive learning cycles and applied research approaches were crucial in encouraging the project team to carry out continuous learning activities and to ask the right questions to improve the quality of intervention strategies. This focus on internal learning and sharing first, helped RANO WASH demonstrate impact and gain credibility to influence external practices. However, despite biannual and annual reviews carried out by the Project with stakeholders, the translation of internal project learning into external influence was not consistent.
- **10.2. To enhance behavior change activities, practitioners should consistently exchange information, including across projects and organizations.** MEAH leadership should foster collaborative learning, either independently or in collaboration with established entities. Future WASH projects would benefit from collaborating early with organizations like Ran'Eau and bolstering MEAH's research leadership, given that current behavior change approaches rely heavily on the "Health Belief Model" and limit the adoption of more innovative methods. Future WASH projects in Madagascar could also benefit from participating in regional and global learning communities.

6 PROJECT MANAGEMENT

6.1 MANAGEMENT STRUCTURE

RANO WASH aimed to achieve a high level of project implementation by establishing a comprehensive organizational structure that promotes seamless coordination across various technical components at all levels (local, regional, and national). This structure enabled effective communication and collaboration between project staff and partner institutions while maintaining the flexibility to adapt to evolving needs and the project's demand-driven approach.

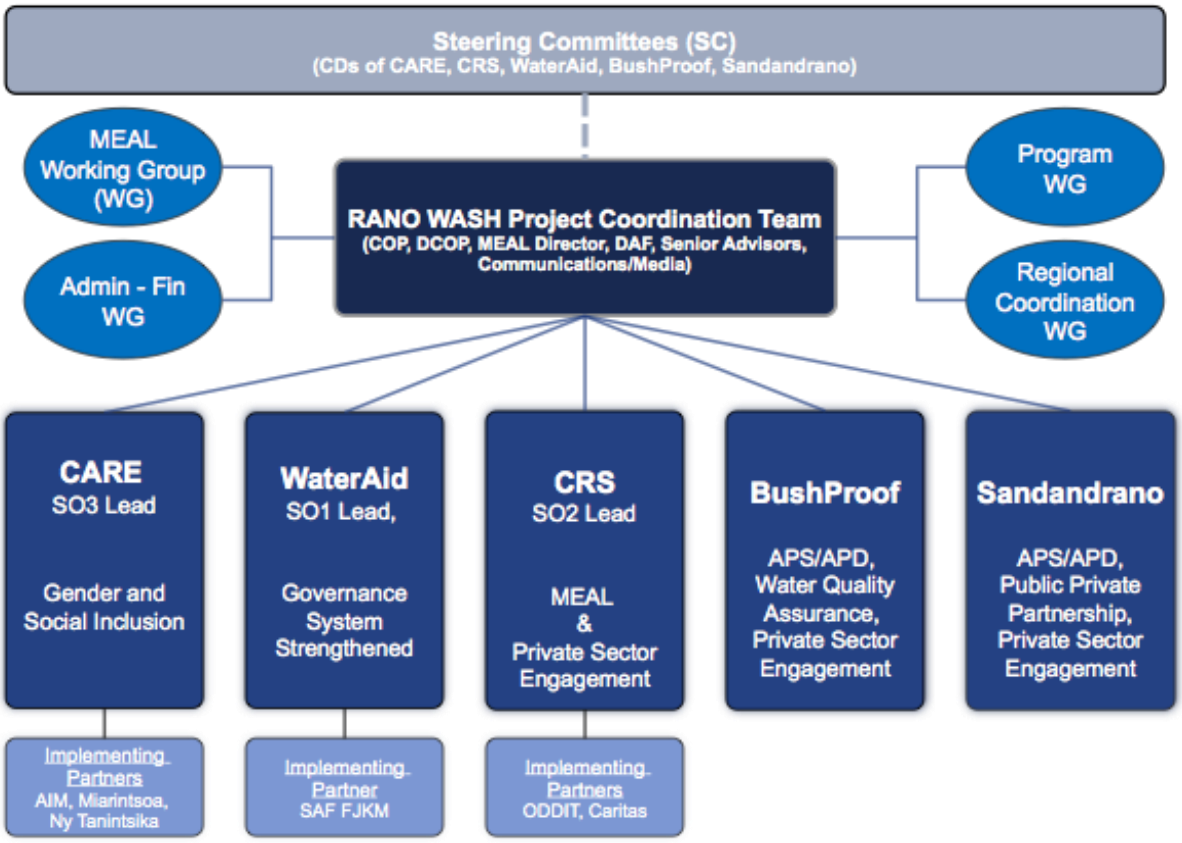


Figure 21. RANO WASH Consortium Governance Structure

PROJECT STEERING COMMITTEE (PSC)

The PSC was established in FY2019 and was led by the CARE Country Director, with participation from all consortium members at the director level. Initially, meetings were held semi-annually and on an ad hoc basis. However, starting from FY2020, the committee began meeting quarterly at the end of each quarter, during the period of submission of the donor report. The agenda for these meetings focused on strategic matters such as government relations, risk identification, policy implications, leverage opportunities, and performance and expenditure reviews. To ensure clarity in roles, responsibilities, relationships, and mutual accountability between the consortium and COP, a consortium governance manual was developed and signed by all country representatives. Technical leadership was also outlined in the manual. (Annex 11. Project Management).

PROJECT COORDINATION TEAM (PCT)

The Antananarivo-based Program Coordination Team served as RANO WASH headquarters, which managed relationships and reported to USAID and central government counterparts. Additionally, the PCT served as the hub for the project's essential personnel, including senior technical specialists, lead finance and administrative personnel, and other key personnel who worked closely with the project's regional teams.

To manage the technical and geographical complexities of program implementation, the Project employed a matrix management structure. Furthermore, the Project utilized adaptive management techniques, allowing for relevant changes to be made as needed.[55], which resulted in relevant changes, for instance drawing lessons from experience with the COVID-19 pandemic, moving to a telework modality, and adapting field activities to travel and health restrictions.

For example, lessons learned from the COVID-19 pandemic were applied, resulting in the implementation of a telework modality and the adaptation of field activities to accommodate travel and health restrictions.

The PCT played the following roles:

- Provide overall strategic direction and technical leadership, ensuring technical coherence and maximizing cooperation across all technical components;
- Oversee national engagement with central GoM stakeholders such as MEAH, the Ministry of Public Health, Ministry of Education, Ministry of Interior and Decentralization, other donors, and other stakeholders.
- Communicate, coordinate, and serve as a liaison with USAID, the GoM, other donors, and other stakeholders.
- Coordinate with other WASH projects and initiatives.
- Provide technical support, guidance, and resources to the regional offices.
- Ensure that all offices apply common standards and approaches in project activities.
- Disseminate success stories, best practices, lessons learned.
- Monitor and evaluate project performance.
- Coordinate all the project subcontractors to contribute their expertise on supporting the project implementation.
- Oversee the Project's administration and finances, ensuring that USA ID compliance policies and procedures and implemented and adhered to consistently across all offices.

REGIONAL OFFICES

The RANO WASH project had its regional offices located in different regions of Madagascar, namely Moramanga (Alaotra Mangoro), Ambositra (Amoron'I Mania), Toamasina (Atsinanana), Fianaratsoa (Haute Matsiatra), Antsirabe (Vakinakaratra), and Manakara (Vatovavy and Fitofivany). These offices served as the main centers for implementing the project's assistance at the local level. The teams from each office worked closely with local partners in the 250 communes (refer to Annex 10. List of Communes in Program Areas, by District and Region).

The Regional Coordinators, who were senior experts from Madagascar, led the regional offices. They were responsible for overseeing the day-to-day implementation of activities and

[55] 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.

maintaining a direct interface with provincial and local partners. Each office also had senior specialists in different programmatic areas, such as governance, private sector/water supply, sanitation, and behavior change. Additionally, the offices had support personnel in finance, administration, monitoring and evaluation, and logistics.

MANAGEMENT SUPPORT SYSTEMS AND COORDINATION

The RANO WASH project was complex and spread out over different regions, which made coordination crucial. To ensure that the project stayed on track, several management support systems were implemented.

Technical Working Groups (TWG). Each working group was responsible for developing and promoting a common understanding of key concepts and strategies, proposing and discussing new initiatives, harmonizing approaches, sharing learning and innovation from regions and across SOs, enabling the emergence of leadership within the team and building team spirit. Several technical working groups have been established in FY2019, and meet on a regular and as-needed basis.

TWG themes included governance, private sector engagement, construction activities, hygiene behavior, MBS, gender, MEAL, finance and administration,

Annual Workplan Development senior project managers and consortium members gathered for several days to review the status of activities and develop or refine strategies and plans to guide the development of Annual Workplans and budget which was presented to USAID for formal review and approval.

Quarterly Meetings, Semi and annual reviews: senior project managers and consortium members met to review programmatic and financial performance related to the implementation of the Annual Workplans and address relevant issues.

USAID Meetings: RANO WASH senior project management met on a monthly basis with the USAID AOR and USAID WASH Advisor to review the status of program activities, and financial, and administrative issues and to identify and respond to pressing issues.

The project also participated in periodic meetings organized by USAID HPN for all Implementing partners including online COVID-19 meetings.

Other Routine RANO WASH meetings included:

- COP-CARE Skype – Monthly
- COP-DCOP-MEAL Programmatic and Technical Meeting – biweekly
- COP – DAF Finance / Operations Meeting – biweekly
- Strategic Objectives (SO1, SO2, SO3) PCT / Region Skype Calls – Weekly Monthly[56]
- Project Coordination Team Meeting –biweekly
- Regional-PCT Meetings/ Skype – Weekly to Monthly
- Regional-level Team Meetings – Biweekly to monthly
- MEAL PCT Meetings - weekly
- MEAL PCT/Region Skype Meeting – monthly

[56] During the COVID-19 pandemic, calls were held weekly

6.2 Award Management

Throughout the implementation period, several changes were implemented in the Cooperative Agreement.

Measles and Plague response

USAID awarded 80,000 USD supplemental funding in August 2018 to support a plague preparedness and measles response. Situation reports were provided as part of the project quarterly reports. A final situation report was provided in April 2019.

COVID-19 Redirection Plan

In May of 20220, USAID approved a redirection plan of $281,244 for a period of six months in support of the GoM COVID-19 response. This plan was directly aligned with the project's strategic objectives and activities.

No Cost Extension

Although the Project had made significant progress towards achieving its goals and meeting most of its targets, several challenges had a significant impact on its implementation and resulted in delays and a slower pace of progress, particularly in Strategic Objective 2 (Increasing Private-Sector Engagement in Delivering WASH Services). The COVID-19 pandemic and the introduction of a new tax law, Taxe sur les Marchés Publics, presented unprecedented challenges in Madagascar. These challenges required operational and leadership-level adjustments to adapt. As a result, the project submitted in FY2020 a request for a 12-month No-Cost extension which was approved by USAID in November 2021.

6.3 Financial Management

The total expenditure in Q3 FY2023 is $436,646, which gives a total year-to-date expense of $2,240,080. This corresponds to a burn rate of 104% against the total budget of $2,157,304 for FY2023. RANO WASH exceeded cost share requirements for FY2023, with a total year-to-date contribution of $1,171,733, representing 373% against the budget FY23 of $314,177.

The Project construction line item has a remaining balance of $41,949 from the total NCE budget of $4,379,174 minus the inception-to-date expenditure of $4,337,225, corresponding to a burn rate of 99%.

Table 8. RANO WASH Construction Line Items

Construction line items	Budget Mod # 12	Previous FYs cumulative expenses	Expenses Q1.23	Expenses Q2.23	Expenses Q3.23	Cumulative Expenditure to Date	Balance
CARE	1,527,193	1,244,082	46,865	121,123	112,123	1,524,193	3,000
CRS	1,873,938	1,316,599	134,476	362,435		1,813,510	60,429
WaterAid	978,042	782,233	71,733	129,849	15,707	999,522	(21,480)
TOTAL	4,379,174	3,342,914	253,074	613,407	127,830	4,337,225	41,949

RANO WASH also submitted the financial report (SF425) for the interim final reports to USAID, reporting an interim cumulative expenditure of **$29,921,114,** representing a remaining balance of $78,886 compared to the NCE budget of $30,000,000 and a cumulative cost-share of **$5,081,004,** representing **169%** of $3,000,000 per the Cooperative agreement.

Annex 4. Finance & Cost Share provides further details.

LIST OF ANNEXES