seed madagascar
sustainable environment, education & development

A Final Report for

CSB STRENGTHENING: AMBINANIBE CSB

Improving health access in rural Madagascar

April 2025

Summary

Context

Ranking 177/193 on the Human Development Index, *Madagascar remains one of the poorest and least developed countries in the world*.[1] The southern regions are currently grappling with high rates of food insecurity from the worst drought recorded since 1981, as well as the fallout from two cyclones in 2022 which destroyed over 80% of crops in the southeast.[2] Meanwhile, *Madagascar's health expenditure continues to be amongst the lowest globally*, representing just 1% of national spending in 2020.[3] Rural CSBs (community health centres) bear the brunt of the burden as spending is focused on urban areas, leaving remote communities deprioritised and beyond reach of professional and infrastructural development.

This is reflected in country-wide statistics which indicate that approximately *half of all health facilities lack access to an improved water source and hygienic latrines*.[4] Children are disproportionately impacted by these outcomes as 6% die before the age of five, with water, sanitation, and hygiene (WASH)-related diseases accounting for 25% of these deaths.[5] Unsanitary WASH conditions in CSBs perpetuate the transmission of WASH-related diseases, which can be especially detrimental in medical environments where healthcare workers are in close contact with sick and injured patients.

There is also an immediate need for well-lit health facilities to ensure more efficient nighttime service delivery in both scope and quality in order to improve health outcomes. This need is especially urgent for childbirth services as 35% of girls aged 15-19 in Madagascar have begun childbearing with this figure rising to 49% amongst those in the lowest quintile.[6] In rural areas, where *the fertility rate averages five children per woman and less than 11% of the population has access to electricity*, well-lit health environments are critical to safely manage childbirth as well as emergency medical interventions at night.[7] Despite these needs, rural CSBs often face significant challenges in accessing electricity as extending the grid to remote areas is costly, unlikely to be prioritised over major public projects, and oftentimes unfeasible due to the high dispersion of rural populations.

CSB Strengthening as a Solution

SEED Madagascar's CSB Strengthening project aims to improve health access and quality of service delivery in Madagascar's rural Anosy region by providing improved healthcare infrastructure and professional medical training for healthcare workers at Ambinanibe CSB. To improve access to sanitary and private restroom facilities, SEED constructed five new latrines, two ventilated improved pit (VIP[a]) and three composting[b] latrines. To provide a private and dignified space for staff and patients to manage their menstruation, SEED constructed a menstrual hygiene management (MHM) facility, which can also be used as a shower. SEED ensured access to safe drinking water, as well as running water access to the MHM/shower facility, through the installation of a 10,000-litre rainwater harvesting system. To provide clean and reliable electricity, SEED facilitated the installation of a solar electricity system complete with solar panels, a solar generator, and fixed-lumen lightbulbs for each room of the CSB as well as the veranda. To empower healthcare professionals to deliver improved health services, SEED organised the delivery of a Ministry of Health WASH curriculum to CSB staff designed to ensure the proper management of new WASH infrastructure and inform on WASH best practice. Furthermore, SEED established a WASH management committee composed of CSB staff to oversee the new infrastructure and ensure implementation of WASH best practices.

[a] VIP latrines are designed to increase air circulation, minimising smell, and disease-transmitting flies.

[b] Composting latrines are designed to separate liquid and solid waste, reducing odour. Additionally, by adding sawdust to solid waste, the combined product can be removed from the latrine and used as fertiliser for agricultural purposes.

Activity Detail

Construction Activity

Latrines, Handwashing Station, and MHM/Shower Facility

Construction activities at Ambinanibe CSB were completed in February, one month later than the scheduled project delivery date in January. This delay primarily resulted from the limited size of the CSB site, which restricted the number of the construction team workers who could work simultaneously. Due to unexpected scheduling constraints with SEED's implementing partner Tatirano Social Enterprise, work to install the 10,000-litre rainwater harvesting system became the initial project activity. Due to the small project site, SEED's construction technicians were not able to begin work until the system was complete and Tatirano's construction team had vacated the site. Additionally, due to disruptions in local supply chains of key materials such as lumber and paint, there were marked delays in construction of the latrines and MHM/shower facility. To complete construction activities in a timely manner, additional construction workers were hired. This allowed SEED to complete project activities within the final week of February.

Despite these initial delays, the construction of five new latrines is now complete. Behavioural 'nudges'[c] have been installed with WASH murals and written messages painted on the latrines to encourage healthy hygiene practices among patients and CSB staff. An MHM/shower room has been constructed, providing a clean space for showering, as well as for CSB staff and patients to manage their menstruation with privacy and dignity. Finally, a handwashing station with running water has been constructed adjacent to the latrines, providing access to improved hygiene services for both patients and staff.

The newly constructed latrines, handwashing station, and MHM facility at Ambinanibe CSB.

Water Provision

In partnership with Tatirano Social Enterprise, SEED facilitated the installation of a 10,000-litre rainwater harvesting system for Ambinanibe CSB. Students, teachers, and the community can now access clean drinking water, reducing the transmission of WASH-related illnesses. The rainwater harvesting system also supplies

[c] Nudges are design features that are intended to 'nudge' a person's decision-making. At Ambinanibe CSB, painted handwashing murals and written messages are included on the latrines. This encourages patients and their families to practice health-promoting behaviours, such as washing their hands following latrine use.

running water to the MHM facility as well as handwashing station. The system will be monitored weekly by a local agent to ensure that it continues to function well over time. The results of these monitoring visits are publicly available on the Statirano website, which ensures that quick action will be taken if the system is in need of maintenance.

The 10,000-litre rainwater harvesting system installed at Ambinanibe CSB.

Solar Electrification

Having partnered with Malagasy solar electricity company Jiro-VE, SEED facilitated the installation of a 400-watt solar electricity system at Ambinanibe CSB in late February. The system includes solar panels, a solar generator, and fixed lumen bulbs with a switch system in each room and the front veranda. The solar electrification of the CSB will allow for uninterrupted night-long electricity, which will in turn reduce the risks involved in attending live births or conducting essential medical interventions by torchlight or kerosene lamps.

The fixed lumen bulbs above the veranda of the CSB (left), the solar panels installed on the CSB roof (center), the solar generator inside of the access panel (right).

Ministry of Health WASH Training and Education Sessions

To complement the provision of new WASH infrastructure at Ambinanibe CSB, SEED facilitated the delivery of a Ministry of Health WASH Education Curriculum for CSB staff. Participants were instructed on six essential subjects: ensuring safe drinking water, properly using and maintaining hygienic latrines, practicing regular handwashing with soap, managing menstrual hygiene, handling medical waste responsibly, and maintaining thorough cleaning and disinfection routines. As part of the session, a WASH committee was established amongst members of the CSB staff to oversee the implementation of these practices. This team will take the lead in maintaining standards for hygiene and promoting healthy behaviours, both at the clinic and in the wider community of Ambinanibe.

Alongside the Ministry WASH Education, SEED's WASH Officer delivered WASH education sessions to patients and their families at the CSB. These sessions included lessons on latrine use and maintenance, handwashing, and water treatment, and are designed to encourage the sustained use of facilities and promote healthy behaviours beyond project end.

A trainer from the Ministry of Health delivers the WASH education curriculum to staff members at Ambinanibe CSB.

Handover Ceremony

A ceremony was organised in order to formalise the process of handing over responsibility of the newly provisioned infrastructure to the CSB and its staff. In March, the official handover ceremony was held following the completion of project activities at Ambinanibe CSB. Alongside SEED and CSB staff, the Chef Fokontany[d] of Ambinanibe, healthcare workers from Ambinanibe and nearby CSBs, and various representatives from other local organisations and ministries such as the regional office of public health and the district office of public health, were all in attendance.

The ceremony began with opening remarks from the Chef Fokontany welcoming all attending parties and officially opening the day's proceedings. This was followed by a speech from the Managing Director of SEED, who thanked all parties for their various roles in implementing the project. After more speeches from other officials, attending parties were led through the CSB grounds to examine the newly provisioned infrastructure. The Head of

[d] A Chef Fokontany is the elected leader of a community.

the CSB and SEED's Head of Construction fielded questions from attendees and explained the benefits of the project to community members of Ambinanibe. After some closing remarks, attendees joined the Head of the CSB in her office for refreshments, officially bringing the day's events to a close.

SEED's Project Votsira Coordinator and the Head of Ambinanibe CSB present new medical equipment donated by the regional Ministry of Health, including a birthing bed (left) and a breast pump (right).

Sustainability

Following project completion, CSB staff now have full responsibility for managing all infrastructure, which has been designed to minimise maintenance costs. The delivery of Regional Ministry of WASH-led training has additionally enabled staff to coordinate repairs if necessary. SEED has partnered with Jiro-VE, a Madagascar-based enterprise with 11 years' experience deploying unique, tailored models to accommodate various energy projects across Anosy. Following installation, the CSB will be responsible for overseeing all solar equipment, supported by a manufacturer's warranty on solar panels. This warranty period is designed to ensure the longevity and durability of the solar system equipment. Jiro-VE has provided training to enable staff to oversee equipment functionality and coordinate repairs if necessary.

Delegates are led around the CSB grounds to survey the new infrastructure during the handover ceremony.

SEED's Capacity to Deliver

SEED is an award-winning, holistic international development charity that envisages communities and ecosystems thriving across Madagascar. With over 20 years of responding to the need for improved WASH infrastructure in the southeast of Madagascar, SEED has extensive experience constructing WASH facilities tailored to meet the localised needs of different groups. The CSB for this project has been strategically selected based on its successful inclusion in other SEED projects such as Project Votsira, which focuses on maternal and child health.

Since 2019, SEED has partnered with Tatirano Social Enterprise to broaden access to water provision, transitioning from primarily focusing on groundwater wells to incorporating rainwater harvesting systems. This collaboration has since led to the successful execution of over 15 projects, including at the Ambinanibe CSB.

SEED's experience in solar energy projects is evidenced by the successful implementation of the first two phases of Project Masoandro.[e] Since its launch in 2023, Project Masoandro has delivered improved energy access to 11 communities and will continue to scale up at existing sites while expanding to new communities in the coming years.

Summary

CSB Strengthening: Project Ambinanibe CSB, aims to tackle three significant barriers to development, health and well-being, access to water, sanitation, and hygiene, and access to affordable, reliable, and sustainable energy. These have been highlighted as priorities by UN Sustainable Development Goals 3, 6, and 7 respectively.

To achieve these goals, SEED has constructed five gender-segregated latrines and one MHM/shower facility. In partnership with Tatirano Social Enterprise, a 10,000-litre rainwater harvesting system with a handwashing station has been installed. Additionally, SEED partnered with Jiro-VE to solar-electrify Ambinanibe CSB through the installation of a 400-watt solar system, providing the CSB with renewable and continuous electricity. Finally, to promote the long-term healthy use of facilities, SEED facilitated the delivery of Regional Ministry-led WASH training to all CSB staff and provided WASH education to CSB patients and their families.

The project will ultimately enhance access to health services for over 6,000 community members that Ambinanibe CSB serves, while also improving the working conditions for CSB staff.

The interior of the MHM/shower facility (left), SEED's Head of Schools explains the handwashing station to the delegates (right).

[e] Malagasy word for sun.

Financial Report

Project expenditure against target has been consistently monitored throughout the project. The completion of CSB Strengthening: Project Ambinanibe CSB has adhered to the budget, with 97.1% (£25,928.46) of the total budget (£26,702.00) spent.

Impact on Budget Due to Supply Chain Issues and Bulk-Buying

Throughout the project timeline, the town centre of Fort Dauphin experienced widespread challenges with supply chain procurement and logistics. Import costs and the price of certain materials, such as paint, various types of lumber, as well as roof sheeting, have fluctuated throughout the duration of the project to date. To mitigate this, construction materials were purchased in bulk and used across multiple lines, resulting in an overspend for certain lines and underspend on other lines, but with overall savings for the project.

Additionally, this strategic material purchasing allowed for SEED to coordinate larger batches of construction material delivery, resulting in less trips overall. This resulted in an expenditure on construction material transport of only 71.2% of the budgeted amount.

Impact on Budget Due to Project Delays

Due to the extension of the project timeline, nearly all lines related to staffing were overspent. SEED's construction team spent more time than anticipated working on-site and thus, their salaries exceeded the pre-allocated amount. Overall, spending on wages for staff hired for this project was 129.7%. This was also reflected in construction team per diems with a 120.5% overall spend as those payments were administered per day spent working. Additionally, the extended timeline caused a 14.6% overspend on motorbike fuel and maintenance as staff conducted more monitoring visits than anticipated due to the extended project period.

Underspend on WASH Education and Capacity Building

Prior to the delivery of WASH training by the Ministry of Health, SEED was notified that the curriculum for the WASH training had been consolidated. Although the content of the training remained the same, the training timeline changed from three partial days to one entire day. This led to a significant decrease in spending on compensation and per diems for Ministry of Health trainers, per diems for CSB staff, materials for the education sessions, and associated transport costs. This change to the training subsequently led to a large underspend across all WASH education and capacity building lines, resulting in overall expenditure of only 39.8% of the budgeted amount.

Underspend on Rainwater Harvesting and Solar Systems Installation

The quoted amounts provided by implementing partners Tatirano Social Enterprise and Jiro-VE, which were used to create the project budget, were general estimates and did not consider location and transport specifics. Due to Ambinanibe CSB's close proximity to the town centre of Fort Dauphin in comparison to other rural project sites, installation costs were markedly less expensive, resulting in only 64.2% spending on rainwater harvesting system installation and 86.13% expenditure on solar electrification.

These underspends, along with savings on WASH capacity building, construction material purchase and transport, mitigated the impacts of over expenditure on various staffing lines due to the project's extended timeline. As a result, the project finished slightly under budget. SEED requests that the underspend of £773.54 be allocated to further support rural CSB strengthening initiatives. For additional information, please feel welcome to get in touch.

References

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