



seed **madagascar**
sustainable environment, education & development



A Proposal for

PROGRAMME SEKOLY: AMBOAVOLA PRIMARY SCHOOL

Improving health and education in rural Madagascar

April 2024

Introduction

SEED Madagascar (SEED) is currently seeking £97,620 for an *eight-month project that aims to improve the quality of health and education at Amboavola Primary School*. SEED will *repair the existing school building and community groundwater well*. Alongside reparations, SEED will *construct a fully furnished three-classroom school building, two three-cubicle gender-segregated latrines with a menstrual hygiene management (MHM) facility, and teachers' accommodation*. SEED will also as provide a *10,000-litre rainwater harvesting system with handwashing stations*. The provision of infrastructure will be complemented by sustainable water, sanitation, and hygiene (WASH) education, delivered to students and teachers through a train-the-trainer model. The *installation of a solar system on the school site* will provide the school population as well as community members with green solar energy. SEED will *offset the carbon emissions of the project* through the development of a community-managed tree planting site.

Context

Education and Water, Sanitation, and Hygiene in Madagascar

Ranking 177/193 on the Human Development Index, *Madagascar remains one of the poorest and least developed countries in the world*.¹ Children bear the brunt of this burden, with over 70% of Malagasy children living in poverty.² *Over 900,000 children are not attending school*, and only 63% of children complete primary school.³ These issues are amplified in rural schools across Madagascar's under-resourced Anosy region, where 51.5% of six to ten year-olds have never attended school.⁵

Moreover, it is estimated that *6,900 Malagasy children die annually from WASH-related diseases*, though in some instances this figure can be almost double.⁶ Countrywide, 81% of schools have no water service, and a staggering *97% of the Anosy population do not have access to basic sanitation*.⁶ Insufficient or non-existent WASH infrastructure in schools contributes to the transmission of disease, whilst impeding academic achievement.⁷ Female students are further disadvantaged due to a lack of MHM facilities, which prevents them from safely managing menstruation in school, exacerbating school absenteeism.⁸

Amboavola Primary School

Amboavola Primary School exemplifies the Anosy region's education and WASH challenges. The isolated school currently has 267 students aged between three and 15, in which the five primary school grades share a two-classroom building which is currently in disrepair, displaying issues with the foundation, walls, doors, windows, and roof. This results in overcrowding resulting in students attending half-day classes to accommodate for the lack of available space. In addition to limiting the classroom time of current students, the Head Teacher has also indicated that the poor infrastructure and limited capacity continues to discourage new enrolment. Furthermore, the school's dilapidated infrastructure presents risks to the school population with signs of cyclone damage from previous years which are becoming increasingly frequent in the region.

Students and teachers are unable to adopt healthy WASH behaviours due to the school's lack of WASH infrastructure. Having no sanitation facilities inhibits privacy for all, particularly for those who are menstruating and cannot practice safe MHM at school. There is a community well approximately a five-minute walk from the school, but it is uncovered, and the pump is broken. This means that the water is drawn by hand which further increases the risk of contamination. The absence of an on-site water source and handwashing facilities further prevents students and teachers from adopting health-promoting habits. These poor WASH conditions contribute to rates of open defecation in the community, which can contaminate water points and increase the risk of communal disease transmission, exacerbating the already difficult conditions of having very limited access to health services.



The outside of a classroom at Amboavola Primary School, which does not have furniture for students to sit on.

Proposed Project

SEED aims to address these challenges by conducting an eight-month construction project at Amboavola Primary School. This project intends to improve the education and WASH environment of the school by achieving the following outcomes:

Outcome One:

Enable 267 students to attend school full-time through the reparation of the existing school building and the construction of one fully furnished three-classroom school building.

Outcome Two:

Improve staff absenteeism by constructing on-site teacher accommodation.

Outcome Three:

Improve WASH access for 267 students and eight teachers through the reparation of the existing groundwater well and the installation of a 10,000-litre rainwater harvesting system with handwashing stations.

Outcome Four:

Improve gender-equitable sanitation for 267 students and eight teachers through the construction of six gender-segregated ventilated-improved pit (VIP^a) latrines.

Outcome Five:

Increase WASH knowledge and behaviours amongst students and teachers through the delivery of WASH education sessions and the establishment of a school WASH committee.

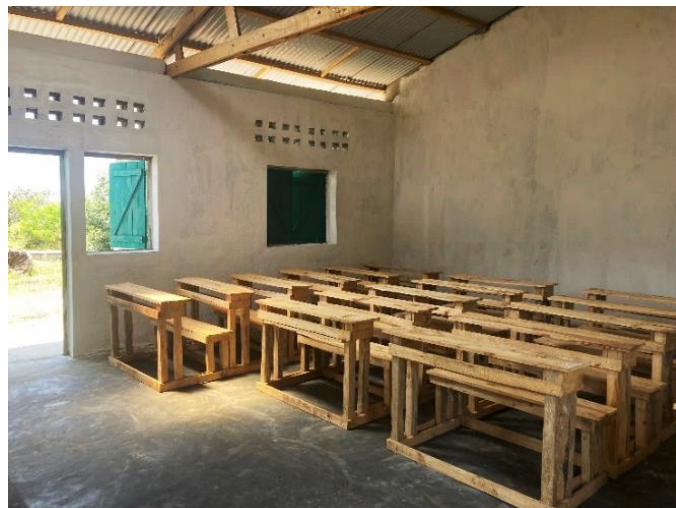
Outcome Six:

Provide the school as well as wider community with green solar energy through the installation of a solar system powering 96 power banks and LED lights.

Outcome Seven:

Offset project-related carbon emissions through the establishment of a community-managed tree planting site.

^a VIP latrines are designed to increase air circulation, minimising smell, and mitigating the presence of disease-transmitting flies.



A three-classroom school recently built by SEED (left), the interior of a SEED-built classroom with new student furniture (right).

Classroom Infrastructure

At Amboavola Primary School, SEED will furnish and repair the existing school infrastructure as well as construct a fully furnished three-classroom school building. The construction of new classrooms and refurbishment of the existing building at Amboavola Primary School will improve the existing learning environment by enabling students to attend full-day classes. In response to widespread cyclone damage to schools in southeast Madagascar in early 2022, the construction of the school building will include the addition of a cyclone-resistant design to reinforce the roof and classrooms against adverse weather conditions.

Teacher Accommodation

SEED will construct teacher accommodation at the school. This on-site housing aims to support teacher livelihoods, minimise staff absenteeism, and enhance school management and security. Teachers' capacity to report to school without fail and on time has shown to be highly associated with the distance between their home residence and work. This makes the provision of quality on-site accommodation a key strategy for increasing teacher attendance.⁹

Water Provision

SEED will facilitate the installation of a 10,000-litre capacity rainwater harvesting system at Amboavola Primary School. Once filled, this will provide two months' worth of clean drinking water without requiring additional replenishment. The rainwater harvesting system will also supply running water to the handwashing stations and MHM facility. SEED will also repair the existing groundwater well, providing access to an additional clean water source for students, teachers, and community members.



The community well in Amboavola, which is open to contaminants and in need of repairs (left). An example of a 10,000-litre rainwater harvesting system (right).

Latrines, Handwashing, and MHM

SEED will construct two three-cubicle gender-segregated VIP latrines to support the school's growing population. This will reduce the student-to-latrine ratio below the national ministry guideline of 50:1.

Handwashing stations will be constructed at the school, equipped with WASH behavioural 'nudges'^b to encourage students to adopt positive hygiene practices. SEED will also construct an MHM facility which will provide students with a safe space to manage their menstruation at school with privacy and dignity.



An example of a SEED-built latrine complete with behavioural 'nudges'.

WASH Education

To complement the provision of infrastructure, SEED will deliver WASH education sessions to teachers and students using a train-the-trainer approach, designed to encourage the use of facilities and promote healthy behaviours beyond project end. WASH education will include information on water treatment, handwashing, latrine use and maintenance, as well as guidance for use of the MHM facility.



SEED's WASH Officer conducting WASH education sessions with teachers.

^b Nudges are environmental features that are created to 'nudge' a person's decision-making and encourage health-promoting behaviours. These include paths with painted footprints leading from latrines to handwashing stations, and WASH murals with messaging painted on latrines and MHM facilities to encourage use.

Project Masoandro^c: Solar Energy Provision

SEED will partner with [Jiro-VE](#), a Madagascar-based social enterprise specialising in solar installation and service provision, to facilitate the installation of a 1,200-watt solar system and light library^d at Amboavola Primary School. The light library charges 96 portable power banks per day with attachable LED lights available for rent, providing the community of Amboavola with first-time access to affordable and clean energy. This enables activities such as studying and doing homework after dark without the need for kerosene lamps, which are more expensive and contribute to poor health outcomes. Amboavola Primary School will receive two free-to-use power banks and LED lights to be used at the teachers' discretion, including to grade work and lesson plan outside school hours, as well as to increase security on the school site. The light library will be operated using a unique franchisee model that engages the community and creates meaningful employment.



Solar system installed on a school roof (left), light library at a school site (centre), Jiro-VE power banks (right).

Sekoly Maintso^e: Carbon Offsetting Education Infrastructure

The production and transportation of building materials to school sites produces carbon dioxide emissions that negatively contribute to climate change. This disproportionately affects the communities in southeast Madagascar, like Amboavola where there are increasingly unpredictable and adverse weather patterns, including cyclones, floods, and droughts. Recognising SEED's responsibility to reduce carbon emissions and protect the environment, Project Sekoly Maintso aims to reduce the carbon footprint of school constructions and repairs by offsetting the carbon emissions of all recent and future school builds.

Sustainability

Following project completion, the school will be responsible for managing all infrastructure, which has been designed to minimise maintenance costs. SEED will establish a WASH maintenance committee and provide infrastructure management training, enabling committee members to coordinate repairs if necessary. The integrated train-the-trainer approach will enable the school to sustainably and autonomously use infrastructure and deliver WASH education sessions. SEED will also organise an electricity management committee within the community, in order to ensure sustainability of the solar energy provision and oversee all light library operations. The technical implementation partner will extend their involvement beyond the project's duration, offering continuous support through their decentralised franchise management system.

^c Malagasy word for sun.

^d Kiosk constructed on the school site where a franchisee selected from the community runs all solar operations.

^e Malagasy word for Green School.

SEED's Capacity to Deliver

SEED is an award-winning, holistic international development charity that envisages communities and ecosystems thriving across Madagascar. SEED has over 15 years of experience responding to the need for improved education infrastructure and access to WASH in the southeast of Madagascar.

The Sekoly Programme has a history of improving its design approach in response to localised needs. In 2011, SEED moved from building wooden schools to durable concrete buildings, providing more sustainable weather-resistant learning environments. Responding to the challenge of teacher absenteeism and progressively addressing the impacts of gender and sanitation on students' education, each school build includes teacher accommodation, gender-segregated latrines, MHM facilities, and handwashing stations.

Access to water provision has adapted from primarily focusing on groundwater wells to including rainwater harvesting systems, whilst WASH education sessions and 'nudges' have progressed to reinforce healthy WASH behaviours. Since 2021, SEED has pledged that all school projects going forward will be carbon neutral, with community-managed planting site offsetting construction emissions.

In 2023, SEED piloted its first solar project in two school sites, providing solar energy to students, teachers, parents, and the wider community. Going forwards, Project Masoandro will be incorporated into the Sekoly Programme and will provide first time energy access across multiple sites in the region of Anosy.

Effective monitoring, evaluation, and learning (MEL) is a priority for SEED. A MEL Framework informs design of MEL approaches tailored to each project, supported by a dedicated MEL Committee. SEED uses industry-standard methodologies to monitor and analyse impact, and responds to emerging needs as they arise, whilst keeping donors regularly informed of progress.

Summary

Programme Sekoly: Amboavola Primary School aims to tackle two serious barriers to development, access to quality education, and clean water and sanitation. These have been highlighted as priorities by the UN Sustainable Development Goals 4 and 6 respectively. This project also contributes to the long-term goal of achieving a net-zero contribution to climate change by seeking to offset SEED's carbon footprint.

To achieve these goals, SEED will repair and construct five classrooms, teacher accommodation, and six latrines complete with an MHM facility. SEED will also facilitate the installation of a rainwater harvesting system with handwashing stations, as well as repair the existing groundwater well. This will be complemented with WASH education delivered through a train-the-trainer model to sustainably improve students' knowledge and behaviours. The provision of a solar system and light library on-site will supply clean energy through the rental of rechargeable power banks and LED lights. SEED will offset the carbon footprint of the project by establishing a community-managed planting site.

The project will ultimately enable students at Amboavola Primary School to gain an education with dignity in a safe environment.

Budget Overview

Programme Sekoly: Amboavola Primary School	Budget Total MGA	Budget Total GBP
Accommodation and Per Diems	16,955,000	3,391.00
Staff Accommodation and Per Diems	16,955,000	3,391.00
Activities	132,647,668	26,529.53
Carbon Offset Planting Site	33,000,000	6,600.00
Handover	800,000	160.00
Monitoring, Evaluation, and Learning	5,100,000	1,020.00
Project Launch	1,000,000	200.00
Rainwater Harvesting System	15,677,668	3,135.53
Solar System	75,000,000	15,000.00
WASH Education	2,070,000	414.00
Administrative Costs	6,760,000	1,352.00
Communication Resources	6,760,000	1,352.00
Equipment, Materials, and Resources	118,112,500	23,622.50
Annealing wire	732,000	146.40
Cement	39,150,000	7,830.00
Gravel	3,120,000	624.00
Lumber	29,772,000	5,954.40
Nails	1,880,000	376.00
Nuts and bolts	720,000	144.00
Paint work	5,737,500	1,147.50
Rebar	11,714,000	2,342.80
Rocks	4,500,000	900.00
Roof sheeting	11,046,000	2,209.20
Sanitation facilities	431,000	86.20
Tools	3,591,000	718.20
Windows and doors	444,000	88.80
Health and Safety Equipment	3,875,000	775.00
Material Storage	1,000,000	200.00
Well repair	400,000	80.00
Human Resources	119,591,994	23,918.40
Administration	14,500,000	2,900.00
Employed by SEED Madagascar (in-country partner)	22,924,000	4,584.80
Hired for Project	82,167,994	16,433.60
Running Costs	73,215,000	14,643.00
Madagascar Running Costs	52,815,000	10,563.00
UK Running Costs	20,400,000	4,080.00
Transportation	20,820,000	4,164.00
Material Transport	14,980,000	2,996.00
Staff Transport	5,840,000	1,168.00
Grand Total	488,102,162	97,620.43

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