seed madagascar
sustainable environment, education & development

A Proposal for

PROGRAMME SEKOLY: KARINORO PRIMARY SCHOOL

Improving health and education in rural Madagascar

February 2025

Introduction

SEED Madagascar (SEED) is currently seeking *£92,283.29* for a *nine-month project that aims to improve the quality of health and education at Karinoro Primary School* in rural Madagascar. SEED will *repair the existing school building and construct a fully furnished three-classroom building, five gender-segregated latrines with a menstrual hygiene management (MHM) facility, one 10,000-litre rainwater harvesting system complete with drinking and handwashing stations, and teacher accommodation.* The provision of infrastructure will be complemented with sustainable water, sanitation, and hygiene (WASH) education, delivered to students and teachers through a train-the-trainer model. SEED will *also offset the carbon emissions of the project* through the development of a community-managed tree planting site.

Context

Education and WASH 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 86% of Malagasy children living in poverty.[2] *Over 900,000 children are not attending school*, and only 60% complete primary school.[3] These issues are amplified in rural schools across Madagascar's under-resourced Anosy region, where *62% of nine- to 12-year-olds have never attended school*.[4]

In Madagascar, poor WASH conditions are the second leading risk factor contributing to death and disability.[5] It is estimated that *over 9,500 Malagasy children under the age of 15 die annually from WASH-related diseases*.[6] Countrywide, 72% of schools have no water service, and a staggering *97% of the Anosy population do not have access to basic sanitation*.[7] Insufficient or non-existent WASH infrastructure in schools contributes to the transmission of diseases, whilst impeding academic achievement.[8] Female students are further disadvantaged due to a lack of MHM facilities, which prevents students from safely managing menstruation in school, exacerbating school absenteeism.[9]

Karinoro Primary School

Karinoro Primary School exemplifies the Anosy region's education and WASH challenges. The isolated and rural school currently has 203 students, in which, the five primary school grades share just two small classrooms. This results in overcrowding whereby students attend 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 indicated that the poor infrastructure and lack of space continues to discourage the enrolment of new students. Karinoro is a remote community where some teachers walk up to two hours to reach the school, a journey that exacerbates teacher absenteeism and undermines access to education. Furthermore, the school's dilapidated infrastructure presents risks to the school population with signs of cyclone damage from previous years, a growing concern as they become more frequent in the region.

Students are unable to adopt healthy behaviours due to the school's insufficient and unsafe WASH facilities. The current latrine facilities are in a state of disrepair, lacking both roofs and doors, and have extremely large pit holes (approximately one square metre). Poor infrastructure combined with a lack of gender-segregation inhibits privacy, particularly for menstruating students who cannot practice safe MHM at school. The absence of a functioning on-site water source and handwashing facilities further prevents students and teachers from adopting health-promoting habits. These poor conditions contribute to open defecation in the community and around the school, which can contaminate water points and increase the risk of communal disease transmission.

As there is no on-site water source, students rely on an unprotected and contaminated water source located in a rice paddy off-site, approximately a 15-minute walk away. This open water source has been identified by the community to cause increased cases of diarrhoea and other illnesses amongst students and teachers.

One of two small classrooms at Karinoro Primary School (left). The current latrine block available for all 203 students and six teachers (right).

Proposed Project

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

Outcome One:
Increase classroom capacity and student-teacher contact hours through the reparation of the existing school building and the construction of a fully furnished three-classroom school building.

Outcome Two:
Improve staff absenteeism by constructing on-site teacher accommodation.

Outcome Three:
Improve water access for 203 students and six teachers through the installation of a 10,000-litre rainwater harvesting system with drinking and handwashing stations.

Outcome Four:
Improve gender-equitable sanitation for 203 students and six teachers through the construction of five gender-segregated ventilated-improved pit (VIP[a]) latrines and an MHM facility.

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

Classroom Infrastructure

At Karinoro Primary School, SEED will repair the existing school infrastructure and construct a fully furnished three-classroom school building. The construction of new classrooms and refurbishment of the existing building at Karinoro Primary School will provide an additional 150 student spaces, whilst improving the existing learning

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

environment. The new education infrastructure will allow for each grade to have lessons in their own classroom, increased student-teacher contact hours, while also accommodating for future population growth. 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 classrooms against adverse weather conditions.

A three-classroom school recently built by SEED (left). The interior of a classroom furnished and built by SEED (right).

Teacher Accommodation

SEED will construct and furnish teacher accommodation at the school. This on-site housing aims to support teacher livelihoods, minimise staff absenteeism, enhance school management, and improve security. Teachers' capacity to attend school without fail and on time has shown to be highly associated with the distance between their home residence and work, making the provision of quality on-site accommodation a key strategy for increasing teacher attendance.[10]

Water Provision

In collaboration with Tatirano Social Enterprise, SEED will facilitate the installation of a 10,000-litre capacity rainwater harvesting system at Karinoro Primary School, which will provide clean drinking water for the school as well as the wider community. The rainwater harvesting system will also supply running water to the MHM facility as well as drinking and handwashing stations. 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 is taken if any system requires maintenance.

The current source of drinking water for the school and wider community of Karinoro, which is open to contaminants (left). An example of a Tatirano 10,000-litre rainwater harvesting system (right).

Latrines, Handwashing, and MHM

SEED will construct five 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.

Drinking and handwashing stations will be constructed at the school, equipped with 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 block complete with WASH 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.

Sekoly Maintso[c]: Carbon Offsetting Education Infrastructure

SEED recognises that its operations, including the construction and repairs at Karinoro Primary School, produce carbon dioxide emissions that have negative environmental impacts. Climate change disproportionately affects the communities that SEED works with in southeast Madagascar, where there are increasingly unpredictable and adverse weather patterns, including cyclones and droughts. Recognising SEED's responsibility to protect the environment, reduce carbon emissions, and increase community resilience, Sekoly Maintso was launched in 2022. SEED's Project Sekoly Maintso plants trees at school sites to offset the carbon emissions from constructions and provides natural resources for community use. For carbon offset, *Moringa oleifera* trees are planted, offering nutritional benefits and aligning with local practices alongside offsetting carbon emissions. Trees harvested from the resource use site will be replanted by the community after harvesting to ensure long-term site sustainability and maintenance. Community engagement is a key focus of Sekoly Maintso, with students participating in environmental education sessions and caring for fruit trees planted at school sites, to further enhance their understanding and involvement in sustainable practices.

---

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

[c] 'Green Schools' in Malagasy.

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.

Students in one of the small classrooms (left). School sign which translates to 'Karinoro Public Primary School' (right).

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 20 years of experience responding to the need for improved education infrastructure and WASH access 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, an MHM facility, and drinking 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 going forward all school projects will be carbon neutral with a community-managed tree planting site offsetting construction and transportation emissions.

Effective Monitoring, Evaluation, and Learning (MEL) is a priority for SEED. A MEL Framework informs the design of MEL approaches which are tailored to each project, supported by a dedicated MEL department. 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. SEED's Sekoly team conducts regular monitoring visits at school sites following project completion. During these visits, data is collected on student and teacher attendance rates, the ongoing maintenance of WASH facilities, as well as the adoption of improved WASH practices among teachers and students. This monitoring helps inform SEED's current and future programming, ensures the longevity of infrastructure, and encourages healthy behaviours.

Summary

Programme Sekoly: Karinoro 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 three classrooms, teacher accommodation, and five latrines complete with an MHM facility. SEED will also facilitate the installation of a rainwater harvesting system with drinking and handwashing stations. This will be complemented with WASH education delivered through a train-the-trainer model to sustainably improve students' knowledge and behaviours. SEED will offset the carbon footprint of the project by establishing a community-managed tree planting site. The project will ultimately enable students at Karinoro Primary School to gain an education in a safe environment with dignity.

Karinoro Primary School.

Budget Overview

Programme Sekoly: Karinoro Primary School	Budget Total MGA	Budget Total GBP
Accommodation and Per Diems	28,110,000	5,303.77
Staff Accommodation and Per Diems	28,110,000	5,303.77
Activities	87,862,000	16,577.74
Carbon Offset Planting Site	64,000,000	12,075.47
Handover	600,000	113.21
Monitoring, Evaluation, and Learning	5,100,000	962.27
Project Launch	1,400,000	264.15
Rainwater Harvesting System	15,000,000	2,830.19
WASH Education	1,762,000	332.45
Administrative Costs	7,080,000	1,335.87
Communication Resources	7,080,000	1,335.87
Equipment, Materials, and Resources	117,800,000	22,226.40
Tools	4,511,000	851.13
Health and Safety Equipment	4,645,000	876.40
Material Storage	900,000	169.81
Construction Materials for School and Sanitation Facilities	93,831,000	17,703.97
Construction Materials for Furniture	13,265,000	2,502.82
Construction Materials for School Repair	648,000	122.27
Human Resources	154,528,436	29,156.31
Administration	15,738,000	2,969.43
Employed by SEED Madagascar (in-country partner)	37,193,178	7,017.59
Hired for Project	101,597,258	19,169.29
Running Costs	73,356,000	13,840.74
Madagascar Running Costs	60,900,000	11,490.56
UK Running Costs	12,456,000	2,350.18
Transportation	20,365,000	3,842.46
Material Transport	14,895,000	2,810.38
Staff Transport	5,470,000	1,032.08
Grand Total	**489,101,436**	**92,283.29**

References

[1] UNDP, (2024). *Human Development Report 2023-24*. Available at: https://hdr.undp.org/system/files/documents/global-report-document/hdr2023-24reporten.pdf

[2] World Bank, (2023). *Global Trends in Child Monetary Poverty According to International Poverty Lines.* Available at: https://documents1.worldbank.org/curated/en/099835007242399476/pdf/IDU0965118d1098b8048870ac0e0cb5aeb049f98.pdf

[3] UNICEF, (2018). *Challenges and Opportunities for Children in Madagascar*. Available at: https://www.unicef.org/madagascar/media/1246/file/Defis%20et%20opportunites%20des%20enfants%20%C3%A0%20Madagascar%20(EN).pdf ; World Bank, (2023). *Madagascar, Education*. Available at: https://data.worldbank.org/indicator/SE.PRM.CMPT.ZS?locations=MG

[4] UNESCO, (2021). *Education Inequalities Indicators – Madagascar, Rural Anosy.* Available at: https://www.education-inequalities.org/indicators/edu0_prim/madagascar/regions#year=%222021%22&dimension1=%7B%22id%22%3A%22region%22%2C%22filters%22%3A%5B%22Anosy%22%5D%7D&ageGroup=%22edu0_prim%22&dimension2=%7B%22id%22%3A%22community%22%2C%22filters%22%3A%5B%22Urban%22%2C%22Rural%22%5D%7D&dimension3=null

[5] CARE, (2023). *Integrating WASH and nutrition in Madagascar for children's growth, development and health.* Available at: https://care.mg/ranowash/wp-content/uploads/2023/03/3_WASH-and-Nutrition-in-Madagascar_Rapport.pdf

[6] Institute for Health Metrics and Evaluation, (2024). Global burden of disease study 2021. Available at: https://ourworldindata.org/childhood-diarrheal-diseases

[7] WHO & UNICEF, (2024). *Progress on drinking water, sanitation and hygiene in schools 2015-2023: special fous on menstrual health.* Available at: https://washdata.org/reports/jmp-2024-wash-schools ; INSTAT & UNICEF, (2018). *Multiple Indicator Cluster Survey 6: Madagascar eau de boisson, assainissment et hygiène.* Available at: https://www.unicef.org/madagascar/media/2381/file/MICS6-Madagascar-2018-WASH.pdf

[8] WaterAid, (2023). *Cultivating Clean and Healthy Learning Environments: The Significance of School Hygiene and Sanitation.* Available at: https://www.wateraid.org/in/blog/hygiene-in-schools

[9] SEED Madagascar, (2021). *A Rapid Needs Assessment Report for Project Mahampy - MHM.* Available at: https://madagascar.co.uk/application/files/1916/1614/0794/2021.03.16-Mahampy-MHM-RapidAssessment-Report.pdf

[10] Karamperidou, D., Brossard, M., Peirolo, S., & Richardson, D., (2020). *Time to Teach: Teacher attendance and time on task in Eastern and Southern Africa.* Available at: https://www.unicef.org/innocenti/media/4851/file/UNICEF-Time-to-Teach-ESA-2020.pdf