seed madagascar
sustainable environment, education & development

A Final Report for

PROGRAMME SEKOLY:
BERAKETA PRIMARY SCHOOL

Improving health and education in rural Madagascar

December2023

Summary

Context

Ranking 173/191 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 10-year-olds have never attended school.[4]

Moreover, it is estimated that *6,900 Malagasy children die annually from water, sanitation, and hygiene (WASH) related diseases*, though in some instances this figure can be almost double.[5] 81% of schools in Madagascar 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 diseases, whilst impeding academic achievement.[7] Female students are further disadvantaged due to a lack of menstrual hygiene management (MHM) facilities, which prevents them from safely managing menstruation in school, exacerbating school absenteeism.[8]

Programme Sekoly as a Solution

SEED Madagascar's (SEED's) Sekoly Programme aims to improve health and education in Madagascar's rural Anosy region by providing education infrastructure and WASH facilities for 129 students and seven teachers in Beraketa Primary School. To enable students to attend full-day classes, SEED constructed one new school building with three fully furnished classrooms. To improve teacher attendance, SEED constructed a two-room teacher's accommodation. SEED increased safe sanitation access by constructing four gender-segregated ventilated improved pit (VIP[a]) latrines, a handwashing station equipped with WASH behavioural 'nudges'[b], and one MHM facility in the school. The installation of a groundwater well will ensure permanent on-site water access and the construction of a 1,000-litre water storage tank supplies water to the handwashing station. SEED empowers communities to sustain improvements by establishing WASH management committees and training teachers to lead WASH education.

Beraketa Primary School students.

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

[b] Nudges are design features that are intended to 'nudge' a person's decision-making. At Beraketa, painted handprints, murals, and written messages are included on the latrines, and a fenced concrete path with painted footprints lead to the handwashing station. This encourages students to practice health-promoting behaviours, such as washing their hands following latrine use.

Activity Detail

Construction Activity

Classroom Building

Construction activities have now been completed, one month later than the originally scheduled project delivery date in October. The excavation of the latrine pits and school building's foundation took longer than anticipated due to the hardness of the ground, as this digging is done entirely by hand. To catch up on project delivery, additional construction technicians were moved to the site in July and construction activities advanced steadily since. The school's three new classrooms are now finished, and in response to increasingly frequent extreme weather events, SEED has installed cyclone-resistant infrastructure with concrete reinforced external pillars and strengthened roofing at Beraketa Primary School. The three new classrooms have been provided with a total of 75 desk-benches for students, five desks and chairs for teachers, three blackboards, and four lockable cupboards. The provision of education infrastructure at Beraketa Primary School will enable 129 students to attend full days of lessons in a safe and high-quality learning environment, whilst accommodating for expected student population growth.

Beraketa Primary School.

Teacher Accommodation

The two-room teachers' accommodation will support teacher livelihoods by reducing living expenses and providing additional workspace for teaching staff. 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 housing at schools a key strategy for increasing teacher attendance.[9] Integrating furnished teacher accommodation into school builds improves teacher retention and attracts higher-quality teachers to the school, both enhancing school management and security whilst minimising staff absenteeism.

WASH Facilities

The construction of four gender-segregated VIP latrines and a handwashing station has concluded. Behavioural 'nudges' have been installed, and murals and written messaging have been painted on the latrines to encourage healthy hygiene practices amongst students and teachers. An MHM facility has also been constructed, empowering students to manage their menstruation at school with privacy and dignity. The installation of a groundwater well has ensured permanent on-site water access and the construction of a 1,000-litre water storage tank supplies water to the handwashing station. The students and community can now access clean drinking water, reducing the transmission of WASH-related illnesses.

WASH nudges have been painted on the latrines, MHM room, and water storage tank (left). Students using the well (right).

WASH Education and Capacity Building

To complement the improved WASH infrastructure, SEED has trained seven teachers at Beraketa Primary School to deliver WASH education sessions to a total of 129 students. Additionally, a WASH committee comprising of 15 school staff, parents, and community leaders has been established to maintain the new infrastructure. SEED delivered WASH education training to committee members and teachers in Beraketa Primary School, covering topics such as handwashing, water treatment, and latrine use and maintenance. These activities promote good WASH practices amongst students and build the capacity of the community to sustainably manage the new WASH facilities.

Beraketa Primary School students in a new classroom.

Sekoly Maintso[c]

The production and transportation of construction materials to school sites produce carbon dioxide emissions that contribute to climate change. Climate change disproportionately affects communities in southeast Madagascar, such as Beraketa, where there are increasingly unpredictable and adverse weather patterns. Project Sekoly Maintso offsets the carbon emissions of SEED's school constructions while providing natural resources for communities by planting trees.

To offset the 68,763kg CO_2e generated by the construction of Beraketa Primary School within 10 years, SEED will plant 344 *Acacia mangium* trees in a carbon offset planting site. The same number of trees will be planted in a community resource use site, with 25% available for harvesting after five years, and 25% available for harvesting per each year after that. After trees have been harvested from the community resource use site, the same amount is replanted by the community to ensure the site is sustainably maintained long-term. The trees will be planted at the start of the rainy season in December 2023.

Community Handover

The handover ceremony for Beraketa Primary School is scheduled to be held in early 2024. Responsibility for maintaining the school and the equipment will be formally transferred back to the Beraketa community. The ceremony will involve speeches, a community blessing of the new buildings, and a traditional cattle sacrifice.

Sustainability and Monitoring

Sustainability

The Sekoly Programme ensures sustainability through complementing the smart, durable design of infrastructure with capacity building of the school community, enabling them to develop and sustain positive WASH behaviours. The school buildings and WASH facilities have been designed to withstand extreme weather conditions and require minimal maintenance. SEED empowers students and teachers with the knowledge and tools to sustain new infrastructure and positive WASH practices. A train-the-trainer approach is used to build the capacity of teachers so they can deliver interactive WASH education sessions. Operating independently of SEED, teachers will deliver these education sessions to the students annually.

Blackboard and teacher furniture in a new classroom (left). Tiled MHM room and two latrine cubicles (right).

Monitoring, Evaluation, and Learning

Over the duration of the project, SEED has monitored the progress of activities at the site through regular visits and departmental reviews. A baseline assessment of WASH knowledge and behaviours was carried out before

[c] 'Green Schools' in Malagasy.

construction began, and an endline survey was conducted upon project completion. The RAG (red-amber-green) system was used to track activities and the progress of project outputs was regularly updated and reviewed by the management team. Follow-up visits, including observational monitoring by SEED staff, will be carried out within six months of project end. During these visits, SEED staff will assess the ongoing maintenance of WASH infrastructure and the adoption of improved WASH practices amongst teachers and students.

Financial Report

Project expenditure has been consistently monitored throughout the project. 100% (£63,695.79) of the amount requested for Programme Sekoly: Beraketa Primary School has been spent, completing the project according to budget.

Due to delays during the beginning stage of the project as a result of the extra time needed for excavating the latrine pits and school building foundation, additional construction team members were moved to Beraketa to catch up with project delivery. Due to additional staff being on-site, as well as the project being extended one month, expenditure of staff accommodation, per diem, and transport lines have been overspent.

SEED's WASH Officer conducted longer than anticipated site visits, and was able to complete several WASH activities during each trip. This resulted in less trips being required overall, and therefore significant underspend on the WASH Officer transport and per diem budget lines.

Due to an increased focus on effective material management, all materials were stored in town in order to be counted and quality checked before being transported to the site as required. With several building projects in progress, SEED has limited storeroom capacity in town. Consequently, material purchasing was periodic, resulting in increased expenditure for the material town transport line. In light of this, whilst also considering the limited storeroom capacity, construction materials were purchased and transported to the site strategically, resulting in an underspend on the material bush transport line, and an overall savings on material transport for the project.

Import costs and the price of certain materials, in particular for all varieties of lumber, have fluctuated throughout the duration of the project, resulting in increased expenditure on certain lines. To mitigate this, construction materials were purchased in bulk and used across multiple budget lines, resulting in overspend for certain lines and underspend on others, but overall material expenditure remaining according to budget.

Beraketa students and Head Teacher in the school's front yard. To the right, the tent that was previously used as the main classroom space can be seen.

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