



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



Final Report for

# **WATER, SANITATION AND HYGIENE IN SCHOOLS**

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**Improving health and education in rural Madagascar**

July 2021

## Summary

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### Context

Ranking 164/189 on the Human Development Index, **Madagascar remains one of the poorest and least developed countries in the world.**<sup>1</sup> Children bear the brunt of this poverty, with over 70.4% of Malagasy children living in poverty.<sup>2</sup> **Over 800,000 children and adolescents are not enrolled in school,** and only 32% of children graduate from primary school.<sup>3</sup> These issues are amplified in rural schools across Madagascar's under-resourced Anosy region, where 51.5% of 6-10 year olds have never attended school.<sup>4</sup>

Moreover, **6,900 Malagasy children die annually from water, sanitation, and hygiene related diseases.**<sup>5</sup> Almost half of the country's population do not have access to basic drinking water and 38% of schools do not have access to basic sanitation services.<sup>6</sup> Insufficient or even non-existent water, sanitation, and hygiene (WASH) infrastructure in schools contributes to the transmission of diseases, whilst impeding academic achievement.<sup>7</sup> Female students are further disadvantaged due to a lack of menstrual hygiene management (MHM) facilities, which prevents them from safely managing menstruation in school, contributing to school absenteeism.<sup>8</sup>

### Project Sekoly as a Solution

SEED Madagascar's (SEED's) WASH in Schools (WinS) project has provided 773 students and 28 teachers in Vatambe Primary School and Mahatalaky Lower Secondary School with vital WASH facilities and high-quality education infrastructure. To complement this infrastructure, SEED delivered WASH education sessions to teachers to promote sustainable hygiene and sanitation practices, such as handwashing and MHM.

Completed in July 2021, SEED has repaired and constructed thirteen latrines, four handwashing stations, and two MHM facilities across both schools. Additionally, one rainwater harvesting system has been installed at each school to provide students, teachers, and their local communities with clean drinking water. SEED built three primary school classrooms in Vatambe to enable students to attend full days of school. Empowering communities to independently sustain improvements, teachers have been trained to lead WASH education and management committees have been established.



*Students outside the newly built school building in Vatambe*

## Activity Detail

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### Construction Activity

#### Classroom Building in Vatambe

The construction of three new classrooms at Vatambe Primary School was completed in March 2021. The foundations of the new buildings were excavated and filled with concrete, with structural support installed. Once the floors and walls were erected, wooden beams were built to support the tin roofs. The windows and doors were then made on site and fitted before painting commenced. SEED repaired the roof of the existing classroom and equipped all classrooms with a total of 105 desks and benches for the students. Each classroom has been furnished with a blackboard, lockable cupboard, and teacher's chair and table. This new infrastructure will enable the schools' 232 students to attend full days of lessons, in a safe and high-quality learning environment.



*Repaired classroom at Vatambe Primary School*

#### WASH Facilities in Vatambe

In Vatambe, two gender-segregated and ventilated improved pit latrines<sup>1</sup> have been constructed, and the school's two existing latrines have been repaired. This has reduced the student-to-latrines ratio by 18%, substantially improving sanitation, and thus reducing disease transmission, for the school's 232 students and seven teachers. SEED has also built two handwashing stations, equipped with WASH behavioural 'nudges',<sup>2</sup> prompting students and teachers to practice good hygiene.

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<sup>1</sup> Ventilated improved pit latrines are designed to increase air circulation, minimising smell and disease-transmitting flies.

<sup>2</sup> Nudges are environmental features that are created to 'nudge' a person's decision-making. In this case, a concrete path with footprints leading from the latrines to handwashing stations are being constructed to encourage students to wash their hands.

In collaboration with Tatirano Social Enterprise, SEED installed a 10,000-litre rainwater harvesting system that will provide the school and community with a two-month supply of clean water without replenishment. Additionally, one MHM facility has been constructed, with a pipe directly connecting the rainwater harvesting system to the tap in the MHM facility, thus enabling female students (reaching age 14 at Vatambe Primary School) to manage their menstruation in school with privacy and dignity.



*Tatirano Rainwater Harvesting System at Vatambe Primary School (left). A student washing her hands using the newly installed handwashing station connected to a piped water source at Vatambe Primary School (right).*

### **WASH Facilities in Mahatalaky**

In Mahatalaky, SEED has built seven new gender-segregated and ventilated improved pit latrines and repaired an additional two latrines. This has reduced the student-to-latrine ratio by 77% and will mitigate the risk of poor health outcomes and disease transmission for the school's 541 students. An MHM facility has been constructed, equipped with running water from the rainwater harvesting system, enabling female students (reaching age 18 at Mahatalaky Lower Secondary School) to manage their menstruation in school. Following the completion of these facilities, SEED installed two handwashing facilities with WASH behavioural 'nudges' and a 10,000-litre capacity rainwater harvesting system, helping to prevent the transmission of WASH-related illnesses.



*Latrines and handwashing station at Mahatalaky Lower Secondary School*

## WASH Education and Capacity-Building

To complement the improved WASH infrastructure, SEED has trained seven teachers at Vatambe Primary School and 21 teachers at Mahatalaky Lower Secondary School to deliver WASH education sessions to a total of 773 students annually. Some of the topics covered in the sessions include water treatment, handwashing, and latrine use and maintenance. To ensure the sustainable management of the new WASH facilities, SEED has established WASH Management and Maintenance Committees in both schools. These committees, consisting of school staff and community leaders, will oversee the management of WASH and education facilities. With the financial training received from SEED, the committees will fund school repairs through the provision of surplus rainwater to the community.

## Community Handover

The handover ceremony for Vatambe Primary School was held on the 11th of June 2021, when the responsibility for maintaining the school and equipment was formally transferred to the community. The ceremony involved speeches, and the community blessed the new building before its opening with a traditional Zebu sacrifice. The keys to Mahatalaky Lower Secondary School were handed over to the Headmaster on the 16th of July 2021. Due to changes in class schedules as a result of COVID-19, no formal handover ceremony took place in Mahatalaky.



*Vatambe's village head giving a speech during the school's handover ceremony*

## Sustainability and Monitoring

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### Sustainability

The WASH in Schools project aims to provide schools with the knowledge and tools to sustain new infrastructure and positive WASH practices. The school buildings and WASH facilities have been designed to withstand extreme weather conditions, such as cyclones, and are intended to require minimal maintenance. Furthermore, the rainwater harvesting systems were built to have larger water-storage capacity than the schools would require. As such, the excess water can be sold to the community to generate surplus income to financially support the schools in the long-term.

A train-the-trainer approach was used to build the capacity of teachers to deliver interactive WASH education sessions. Functioning independently from SEED, the education sessions will be delivered by the teachers to the students annually.



*Vatambe Primary School*

### Monitoring, Evaluation, and Learning (MEL)

Over the duration of the project, SEED has monitored the progress of activities at both sites through regular visits and departmental reviews. A baseline assessment of knowledge and behaviours was carried out before construction began and an endline survey was conducted once the project was completed. The RAG-system (red-amber-green) used to track activities and 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 to assess the ongoing maintenance of WASH infrastructure and adoption of improved WASH practices among teachers and students.

## References

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- <sup>1</sup> UNDP (2020). *Human Development Report 2020*. <http://hdr.undp.org/>
- <sup>2</sup> UNICEF (2018). *Progress for Every Child in the SDG*
- <sup>3</sup> United Nations Educational, Scientific and Cultural Organization (2021). *Madagascar*. <http://uis.unesco.org/country/mg>
- <sup>4</sup> World Bank (2018). *The Deep South*. <https://documents1.worldbank.org/curated/en/587761530803052116/pdf/127982-WP-REVISED-deep-south-V27-07-2018-web.pdf>
- <sup>5</sup> UNICEF (2018). *Drinking Water, Sanitation and Hygiene in Schools: Global baseline report 2018*. <https://data.unicef.org/resources/wash-in-schools/>
- <sup>6</sup> UNICEF (2021). WASH and COVID-19. *Drinking water, sanitation and hygiene by country, 2000-2020*. <https://data.unicef.org/topic/water-and-sanitation/covid-19/> ; UNICEF (2021). WASH and COVID-19. *Drinking water, sanitation and hygiene in schools*. <https://data.unicef.org/topic/water-and-sanitation/covid-19/>
- <sup>7</sup> WHO and UNICEF (2015). *25 years progress on sanitation and drinking water*. [http://www.wssinfo.org/fileadmin/user\\_upload/resources/JMP-Update-report-2015\\_English.pdf](http://www.wssinfo.org/fileadmin/user_upload/resources/JMP-Update-report-2015_English.pdf)
- <sup>8</sup> SEED Madagascar (2021). *A Rapid Needs Assessment Report for Project Mahampy - MHM*. <https://madagascar.co.uk/application/files/1916/1614/0794/2021.03.16-Mahampy-MHM-RapidAssessment-Report.pdf>