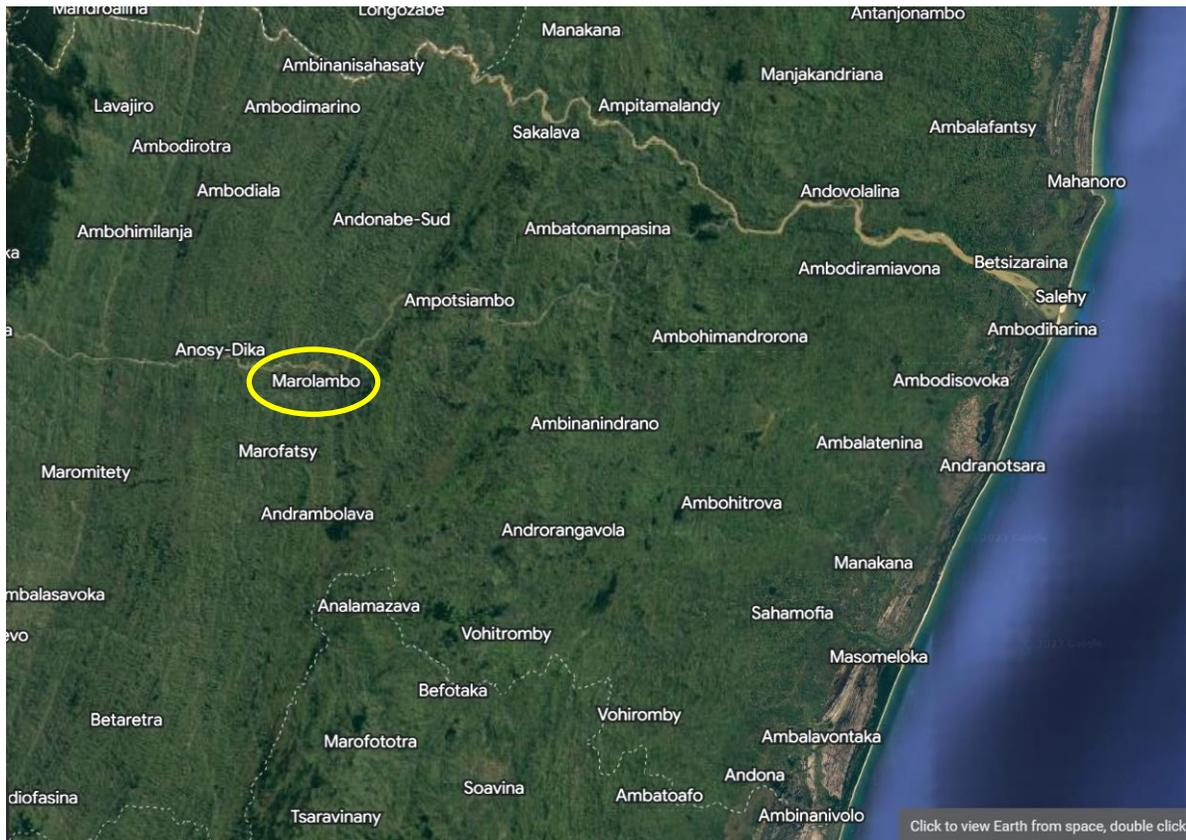


Water For Everyone Madagascar

Marolambo Assessment



December 2022

Mission Date: December 9th, to December 22nd, 2022

Targeted area: District of Marolambo

Mission team:

NAME	OCCUPATION
Hilaire RAZANADRAFELY	Mission Lead
VOAVY Jackson Willy	Regional Director of WASH
Randrianirina Lalaina Marielson	Local guide & Motorcycle driver
Dimanche	Senior surveyor
Mi	Vehicle driver

MISSION OBJECTIVES

- Inventory of existing water infrastructures
- Collecting demographic data of targeted areas
- Collecting water borne diseases data

AREA DESCRIPTION

The District of Marolambo is located in the Region of Atsinanana in the east highlands of Madagascar. The district is made up of fifteen rural and urban communes.

Economy

Lychees, bananas and cloves are grown commercially, and gold and precious stones are mined. Due to its extreme lack of accessibility and infrastructure, the cost of living is high.

Accessibility:

Marolambo is isolated from the outside world. RN 23 runs between Mahonoro and Marolambo and has the nickname “the road to the impossible”. The 130 km trip can take up to two weeks in a 6 x 6 truck and several days by motorcycle, with significant physical and criminal risks. Most materials within the district are moved by human carriers.

Marolambo has an airport. It has no commercial service, but charter flights can be arranged.

Lack of internal infrastructure is a major impediment to the development of the area. The government has made recent efforts to improve RN 23, but the weather is a constant setback to progress. The NGO “FID” has a program to build 30 schools in the area despite the logistic challenges. The Madagascar Water Project plans to mobilize a drilling rig to the area in August 2023 and drill as many wells as logistically possible during the end of year dry season.

The bottom line is most NGOs don't go to Marolambo.

Several photos of roads in Marolambo are shown below:



Security:

Only one Brigade de la Gendarmerie Nationale located in Marolambo provides security for the 15 Communes in the District. Road crime is prevalent.

MISSION ACTIVITIES

ACTIONS	OBJECTIVES
Courtesy visit to the District of Marolambo.	Introduction of the Water For Everyone (WFE) project and request for collaboration
Courtesy visit to the medical inspector of Marolambo	Introduction of the Water For Everyone project and request for collaboration
Courtesy visit to the Brigade Chief of the National Gendarmerie of Marolambo.	Request for information and security instructions
Courtesy visit to the Mayor of Marolambo	Introduction of the project and request for collaboration on data collection
Meeting with the Mayors of Marolambo District	Introduction of the project and request for collaboration on data collection
Field work	Inventory of installed infrastructure

The Team visited eleven of the fifteen Communes in the District. One Commune, Tanambao Rabemanana, was considered a higher security risk.

OBSERVATIONS

Water Availability

- Most villages in the District of Marolambo, estimated to be 95%, have no working water infrastructure or safe water.
- For the few villages that have water infrastructure, it is in very poor condition and requires significant upgrades and repairs.
- Most municipalities and villages still use surface water such as rivers, stagnant water, etc. to meet their water needs.

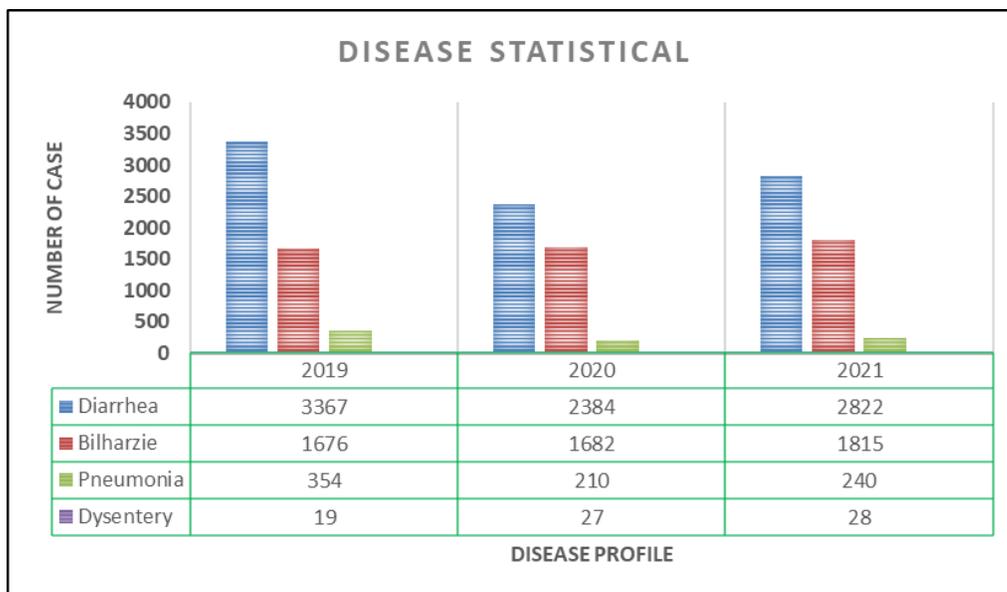
Water Quality

- Most of the population throughout the District is vulnerable to health risks associated with contaminated water. Water borne disease is widespread.
- Mining operations contaminate water sources with their operations.

Health Issues

There is a high risk of water borne disease, including dysentery, diarrhea and schistosomiasis

Surveys of medical personnel, local authorities, villagers, teachers and others indicate schistosomiasis is widespread, especially in the Communes of Marolambo and Betampona. Many believe it carries a big human toll by reducing the life expectancy of the affected population by half (their opinion).



The graph above shows the cumulative number of water borne diseases in Communes that responded to our request for this data. It does not represent data from non-respondent Communes.

EXISTING WATER INFRASTRUCTURE

Water infrastructure is rare and in extreme disrepair, although some clearly have a path to rehabilitation. Short summaries of the water infrastructure encountered in our mission are documented below:

Marolambo:

Marolambo, population 7763, is accessible by 6 x 6 trucks, motorcycles and by foot. It has a municipal system that was built in 2003 and upgraded in 2013.

It collects water from a year-round stream 2.5km outside of the village. It has an upstream filter system and two large 60k m³ tanks. A PVC pipeline brings it to the village, and it is further distributed by a pipeline network. It originally had ~48 water stations but only 15 public stations remain functional. The water system is managed by the Commune.

The upstream part of the system is filled with mud and debris, the pipeline has deteriorated over time and has numerous leaks. Unauthorized taps into the pipeline have further degraded the distribution system. Some stations lack valves and run continuously. The net result is the flow is extremely low, which causes disruptions to working water stations. This water is no longer available to many in the village, who now rely on contaminated urban streams for water.

Four photos of the current infrastructure are shown below:



Ampasimbola

Ampasimbola, population 1011 is located a short distance from Marolambo, which includes a short canoe ride. It has a water source that is insufficient to supply the original four water stands, all but one now being unfunctional. Two photos are attached below:



Vohidamba

Vohidamba, population 1710, is located about an hour's drive by motorcycle from Marolambo. It has a limited water source and four unfunctional water stands. The pipeline has been cut and villagers use the open pipe as a water source. Photos attached below:



Ambodivoangy

Ambodivoangy, population 9992, is accessible by vehicle from Antanifotsy to Ambohitompoina then by motorcycle with a five hour drive. It has a surface-source gravity supply system but lacks a retention tank and filter. The original water station is unfunctional, but a water station placed in the school by FID is working, as is a deteriorating shower facility.

The village has a very active woman's association, which is fully capable of managing the water system. Photos attached below:



Sahakevo

Sahakevo, population 6595, has two open wells of twelve meters depth, which provide water not considered safe. It also has two unfunctional stream-sourced agricultural dams that use to provide water to three villages. Photos attached below:



Ambodinonoka

Ambodinonoka, population 2396, has three open water wells of approximately 9 meters depth. Two wells still provide water, while the third is tied to a water stand at the school which is no longer functional. Photos attached below:



CONCLUSION

The Marolambo District is a very populous area which has a near complete lack of clean water infrastructure. The area has been passed over by many development programs, likely because of its' remote location and inaccessibility.

The need for clean water is clear as water borne disease is widespread and largely preventable. The rehabilitation of existing water infrastructure are good candidates for clean water development and a years' long drilling program would yield considerable humanitarian benefits.

The Madagascar Water Project will be engaged in rehabilitation and new drill well activity in the coming years.