

USAID COMMUNITY CAPACITY FOR HEALTH PROGRAM

A Bicycle Micro-Enterprise Approach to Improving Community Health Worker Mobility and Motivation in Rural Madagascar



PROGRAM SUMMARY

The USAID Community Capacity for Health Program, locally known as Mahefa Miaraka, is a five-year (2016-2021) community-based integrated health program funded by the United States Agency for International Development (USAID). The program is a collaborative effort between Madagascar's Ministry of Public Health (MOPH), USAID, and JSI Research & Training Institute, Inc. (JSI). The program provides tools and capacity-building training to about 10,000 community health volunteers (CHV), who provide basic maternal health, child health, and family planning services to their local community. In addition, Mahefa Miaraka works with national and local government actors to strengthen the health sector and health policies.

MAHEFA MIARAKA



OPERATES IN **7**
REGIONS OF
MADAGASCAR



COVERING A TOTAL
OF **4,708** VILLAGES



WITH A TOTAL
POPULATION OF
6.6 MILLION PEOPLE



OR **28** PERCENT OF
THE COUNTRY'S
TOTAL POPULATION





Mahefa Miaraka

OVERVIEW

In much of rural Madagascar, the lack of available and affordable transport hinders uptake of health services. In a country where over 60 percent of the population lives in rural areas,¹ CHVs have an essential role in health service delivery. In 2019, Madagascar had more than 35,000 CHVs serving 5,700 villages.

CHVs have key roles in implementing Madagascar's National Community Health Policy and the country's strategy to achieve universal health coverage; CHVs do not receive a salary from the government. Furthermore, CHVs also face the same transport barriers affecting rural communities. The "enterprise box" or eBox initiative aims to improve CHV mobility and increase motivation and retention through the provision of bicycles and the opportunity for income generation while also contributing financially to local health insurance schemes. The eBoxes are bicycle sale and repair micro-enterprises managed by registered cooperatives that aim to meet some of the transportation needs of the local population. This initiative is part of a broader integrated approach by Mahefa Miaraka to address transport-related barriers to accessing healthcare. The eBox initiative was designed to create sustainable cooperatives, relying on program support for the first few years.

The eBox incentivizes the ongoing participation of cooperative members through income-generating activities (IGA) and provides strategic support to other integrated transport activities,

including providing bicycles for CHV travel, establishing local bicycle-ambulance services, and increasing transportation options for the local community. The profit generated by the cooperatives also provides support to local health insurance schemes (*mutuelles de santé* and *caisse santé*) that reimburse participating community members for medical costs incurred at local health centers.

APPROACH

Four eBoxes were established in two regions during the USAID Community-Based Integrated Health Program (MA-HEFA, 2012–2016) based on a model brought to Madagascar by the program's partner Transaid from Namibia. The USAID Community Capacity for Health Program (Mahefa Miaraka) established one additional eBox in a third region. The eBoxes are located in Antsohihy and Bealanana districts in Sofia region, Miandrivazo and Morondava in Menabe region, and Antsir-anana II district in DIANA region.

Mahefa Miaraka provided support to all eBoxes regarding the day-to-day eBox operations as well as the importation of bicycle resupplies. Assistance is given related to communication between the bicycle supplier and the eBox cooperatives, the customs and clearing procedures, and the identification of optimal delivery routes (ports of entry).

¹ <https://data.worldbank.org/indicator/SPRUR.TOTL.ZS?locations=MG>

The cooperative members form a management committee to oversee eBox activities, including a salaried team of part-time staff who were trained under MAHEFA and Mahefa Miaraka to carry out day-to-day operations. Cooperative members receive dividends from the profits that are generated from bicycle sales and repairs. The remaining profits are reinvested into the eBox activities, supporting the ongoing provision of bicycles, maintenance of the eBox, staff salaries, and the development of additional IGAs. Approximately 5 percent of the profits are distributed to the local *mutuelle de santé* or *caisse santé*.

Mahefa Miaraka funded the establishment of the new eBox in Anivorano in the form of a container, the shipment of bicycles and spare parts, and covered the costs associated with importing the bicycles. The development of a simplified manual aimed to provide guidance

to staff and committee members regarding eBox operations. Mahefa Miaraka also supported the development of protocols from the onset of the COVID-19 pandemic to ensure that exposure to the virus was minimized for customers, eBox staff, and cooperative members.

RESULTS

Income generation. Since their establishment, the eBoxes have achieved the following:

- 18 bicycle resupplies completed
- 6,595 bicycles imported
- 5,982 bicycles sold
- USD \$15,580 average income generated per year per eBox.

KEY ACTIVITIES



Support to existing eBoxes to transition to self-sufficiency.

Self-sufficiency is achieved once the cooperative is determined to have the operational capacity to manage the eBox, including securing their

financial security in the form of financial literacy and savings to manage eBox activities. This includes the ability to resupply bicycles with the supplier, Bikes for the World. During Mahefa Miaraka, comprehensive training to build capacity was delivered with responsibility for activities transitioning to each respective cooperative, allowing the eBox to function autonomously.



Establishment of an eBox and training of cooperative in DIANA region.

In a context where there was limited availability of transport, the growth potential for the sale of quality bicycles in the area

resulted in a growing local appetite to participate in the eBox initiative. A new eBox was introduced in Anivorano Nord in DIANA region in 2019, where strong local leadership and good teamwork among community actors presented an opportunity to work with the local microfinance lender. A cooperative committee was formed, consisting of CHVs, members of the management committee of the local *mutuelle de santé*, teachers, and commune officials. Mahefa Miaraka provided eBox staff with training to equip them with the know-how of eBox management, including technical training for the repair and maintenance of bicycles, pricing, inventory management, importation and customs processing, management functions, and bookkeeping. Mahefa Miaraka also supported eBox staff in forming a partnership with the bicycle supplier and shipper, Bikes for the World.



Support to CHVs promoting increased access to health services for communities.

The donation of quality bicycles from each resupply to high-performing CHVs motivates CHVs and increases their ability to

access communities in rural areas, and continued throughout the lifetime of the eBox initiative. The donation of bicycles supports the CHVs and the communities they serve by facilitating increased health education and counseling through home visits and the resupply of health commodities.



Collaboration between eBoxes, community insurance schemes, and emergency transport.

The donation of about 5 percent of the profits from bicycle sales is shared with local *mutuelles de santé* or *caisses*

santé, community health insurance schemes, to offset the cost of care at local health centers. In addition, these eBox donations complement community-led emergency transport systems for the transport of patients that help minimize costs of transport to community members and help defray the cost of care through eBox contributions to *mutuelles de santé*.



Training of eBox members on COVID-19 prevention to ensure safe working conditions at all eBoxes.

COVID-19 brought many challenges to eBox operations that demanded learning new ways of

operating the eBox to minimize the risk of exposure to customers and staff. Mahefa Miaraka established standard operating procedures and organized on-site training for eBox committees and staff to help ensure the necessary measures were followed for the safe continuation of eBox activities. This included the provision of personal protective equipment, such as requiring mask-wearing for all staff, setting up handwashing stations, and designing client flows during sales that respect social distancing measures.

“The community health actors who run the eBox are always available and highly motivated to continue the business. Its impacts are promising thanks to its financial contributions in supporting members of community health insurance schemes and improving members' incomes.”

- KOPAMA Member, President FHS Antsohihy

“The market opportunity that makes it easy to sell our bicycles is obvious and motivates us to continue in our business.”

- KAMPI Bemanonga Member

CHV motivation. Fifty-three CHVs received bicycle donations from the eBoxes in Bemanonga, Antsohihy, Bealanana, and Anivorano. CHVs who received bicycles reported increased motivation because the bicycles facilitated their ability to conduct activities. Improvements were reported in the following areas:

- reporting and attendance at monthly health center meetings
- supporting growth monitoring and vaccination sessions for children under age 5
- mobility to counsel on family planning and of pregnant women and promote deliveries at health facilities
- resupply of health commodities in harder-to-reach communities.

Community impact. Members of the eBox cooperative, eBox customers, community health insurance scheme members, and CHVs pointed to noticeable improvements in health, social, and economic outcomes linked to eBox activities, including the following:

- ability of eBox technicians to repair the local Emergency Transport System (ETS) bicycle ambulances and the allocation of funds to the ETS system
- donation of a percentage of eBox profits to the *mutuelle de santé*, which promoted an increased ability to cover healthcare costs of its members
- increase in the mobility of communities through bicycle sales, especially students and those traveling to work
- financial support of community events.

Long-term continuity of eBox activities. All eBoxes reported an intention to continue their activities beyond Mahefa Miaraka based on their successes and achievements to date, the commitment of the community actors, the financial incentive, and gaining new experiences. In addition, eBox members have planned or are already in the process of expanding their IGAs within the framework of the existing, registered cooperative to include IGAs such as the purchase and storage of rice to sell when demand is high.

Transport method during COVID-19. Since the onset of COVID-19, public transport restrictions limited access due to increased transportation costs associated with social distancing measures. According to community members, bicycles became essential as people were forced to consider alternative transportation options. Community demand for bicycles is expected to increase based on experience in Bemanonga and Antsohihy.

TABLE I. EBOX INFORMATION

EBOX INFORMATION (as of December 2020)	Bealanana	Bemanonga	Antsohihy	Anivorano
Number of resupplies received	5	5	5	3
Number of bicycles received since the start	1,463	2,142	1,607	1,383
Number of bicycles sold since inception	1,417	2,112	1,607	846**
Number of staff	11	15	38	13
Number of staff and members who are CHV	7	5	26	12
Number of members****	39	64	17	34
Income: sales, parts, reparation	\$31,315	\$87,472	\$52,311	\$52,690**
Salary and Indemnity	\$3,529	\$26,512*****	\$4,778	\$5,075
Dividend distributions	\$329*	\$19,913	\$2,052	\$4,150
Mutual health and ETS distributions	\$215	\$277	\$1,081	\$223***
Total eBox expenses	\$25,522	\$83,161	\$46,601	\$34,037

* Dividend distribution in Bealanana was restricted to protect the cooperative from the effects of COVID-19.

** Sales were initiated from most recent resupply.

*** Currently selecting the most appropriate *mutuelles de santé*.

**** Members can also be staff.

***** A higher salary paid to eBox staff reflected the higher income generated at the Bemanonga eBox.

CHALLENGES

Communication challenges, including internet access.

Establishing a reliable relationship between the eBox cooperatives and Bikes for the World, the bicycle and bicycle parts supplier, was an essential element to the success of the eBox. Almost all the cooperative members indicated that communication between the supplier and the cooperative was a challenge based principally on language barriers and the lack of consistent access to the internet. While Mahefa Miaraka had an intermediary role during the project, eBox cooperatives have improved the consistency of their direct communications with Bikes for the World, and possible mitigation measures are being explored, such as the use of SMS to alert the cooperative of incoming emails for improved response time.

Inconsistency of requirements at ports. The clearance procedures and rules governing the release of incoming containers at Madagascar's ports varied substantially and frequently changed. This specifically included the required documentation, the amount of information requested, and the calculation of taxes to be paid. Delays in the release of containers resulted in unexpected additional charges to the eBox cooperatives, leading to disruption in finances.

Disruption to supply and procedural changes following COVID-19. COVID-19 led to shipping delays that have affected the timing of bicycle resupplies and an overall decrease in available bicycles. Increased communication between the bicycle supplier and cooperatives occurred more frequently during these times, however, to discuss planning and shipping delays. COVID-19 also required changes to eBox operations: limiting large gatherings, requiring social distancing measures, using protective masks, and using jerry cans and soap to create handwashing stations for staff and clients. Despite these challenges, eBoxes continued functioning.

Capacity-building for new members. It is the responsibility of members who leave the eBox to train incoming cooperative members prior to their departure. However, several eBox members vacated posts without properly training incoming replacements. In some cases, this led to a skills deficit among management committee members. This was mitigated by developing simple manuals which clarify eBox operations.

Bookkeeping and forecasting skills. Some eBox staff, especially storekeepers and treasurers, communicated challenges in correctly maintaining financial records, including missing or incorrect entries and calculation mistakes. In Antsohihy, accounting errors led to the incorrect calculation of available funds for a resupply of bicycles. Fortunately, the error was identified by Mahefa Miaraka staff before any issues emerged. While all eBoxes were associated with an external auditor from their regional directorate of industry, regular audits did not occur at all eBoxes; therefore, potential errors in the financial records may not have been identified.

Closure of eBox in Miandrivazo. Following the initial setup of the eBox and training of cooperative management committee members and staff, cooperatives managed their own activities, with Mahefa Miaraka supporting this process. Unfortunately, the eBox in Miandrivazo was closed in 2019 due to financial hardship following the alleged mismanagement of the funds by the management committee, poor choices of additional IGAs leading to a lack of return on investment, and concerns about the cooperative's leadership. In comparison, four other eBoxes exhibited good governance, successful fund management, and timely reimbursement of resupply costs. These four demonstrated trust among the membership, a commitment to financial transparency, and a democratic approach to decision making.

RECOMMENDATIONS

Mahefa Miaraka supported the establishment and successful continued implementation of community eBox cooperatives that contributed to increased community mobility, provided additional support to and further motivated CHVs to perform their roles, and contributed financial support to community health insurance schemes.



Facilitate the mobility of CHVs. Through the donation of bicycles to CHVs and the overall increase in access to quality bicycles, CHVs reported increased capacity to reach communities and to regularly resupply health commodities. In Bemanonga, CHVs did not report stock-outs of commodities after the introduction of eBoxes. Bicycle beneficiaries also reported increased motivation, leading to an increase in completion of community-based health activities such as health education, home-based care, and provision of family planning services.



Recognize that involvement in eBox activities does not distract CHVs from their primary responsibilities. Despite additional responsibilities on CHVs, the time spent completing voluntary health roles was not affected by the additional workload of the eBox. Rotations for working at eBoxes were established to ensure CHVs still had adequate time to commit to their CHV duties. eBox members and staff were compensated through a salary (staff) or dividend payment (members) and the additional incentive to maintain both activities appeared to support a balanced structure.

RECOMMENDATIONS *continued*



Increase capacity of community insurance schemes to support members. Due to the 5 percent contribution of profits from the eBox in Antsohihi, the local *mutuelle de santé*, previously unable to fully support its members, realized increased financial capacity and strengthened ability to adequately reimburse member medical costs. These contributions supported the *mutuelles de santé* advocacy activities and expanded membership.



Support new ventures with an extensive, supportive supervision period following initial training of the management team, salespeople, and technicians. This better equipped personnel with the skills needed to ensure success and optimize the transition of these skills to future eBox members. The training and support provided to the eBox teams during their initial setup showed a strong uptake of knowledge that translated into successful management of the eBoxes. Continued support related to communication with the supplier, finance management, and importation procedures was necessary to ensure the successful continuation of activities.



Support effective collaboration through communication skills and tools. Effective communication was necessary to conduct activities successfully, avoid mistakes or errors that have financial or scheduling implications, and build successful partnerships. Ensuring that cooperative members had access to training, IT supplies, and internet access facilitated improved collaboration with external partners. Essential tools that were not provided at the inception of an eBox should be purchased through the resupply process.



Maintain surplus funds to prepare for unexpected costs. The eBoxes frequently faced unexpected costs, especially during the customs clearance procedures and ground transportation of the containers, as well as COVID-19 disruptions. Greater emphasis should be placed on developing an adequate surplus of funds that cooperatives can rely on when facing unexpected fees or situations.



Facilitate external audits and reviews within cooperatives. Errors that are managed in a timely manner will likely cause less disruption than those that progress into larger issues. External auditors available locally helped identify errors in financial and inventory records, allowing for accurate forecasting and budgeting. This was essential for planning activities such as bicycle resupplies, identifying opportunities for investment, and ensuring timely payment of invoices. Accurately budgeting for additional investments, such as the collection and sale of rice that was done successfully at the Antsohihi cooperative, provided the cooperative additional income to support activities.