

## Project Case Study - Madagascar

# The GEF/HCWM project supports the vaccination campaign against the measles outbreak by collecting health care waste from landlocked areas

### Background

- Between October 2018 and January 2019, the Ministry of Public Health of Madagascar reported 19,539 cases of measles—39 deaths in health facilities (0.2% mortality rate—and launched a vaccination campaign, in which nearly 4 million children aged 6 months to 10 years were vaccinated during April 2019.
- In Madagascar, incineration and open burning are the most widely used and known disposal technologies for infectious waste—resulting in significant release of unintentional persistent pollutants (UPOPs). Exposure to UPOPs may lead to several types of cancers and the impairment of the immune system, the nervous system, the endocrine system, and the reproductive functions. In Madagascar, many diseases related to inadequate handling, disposal, and reuse of infectious health care waste are reported and pose a threat to the health of the medical staff, patients, visitors, and the community.
- The GEF-financed project to reduce UPOPs and mercury in the health sector in Africa—GEF/HCWM Project—supported the collection, transportation, and treatment of infectious waste of the vaccination campaign in four districts: Anjozorobe, Ankazobe, Betafo, and Mandoto. The collected waste was treated/sterilized by a non-incineration technology—autoclave—in the centralized treatment facility at the University Hospital Ravoahangy Andrianavalona (CHUJRA) Ampefiloha.



### Approach



- The General Secretary of the Ministry of Public Health issued an official letter to assign four hospitals in Anjozorobe, Ankazobe, Betafo, and Mandoto to be points of collection for medical vaccination waste from all base health centres (CSBs) in their respective regions.
- Two vehicles, provided by the project, are available to go to the CSBs—places where used syringes and vials are collected. The focal points of CHUJRA and the University Hospital Joseph Raseta Befelatanana (CHUJRB) have been appointed to support collection and transportation infectious waste from the vaccination campaign in April 2019.
- The project also supported the treatment facility in CHUJRA to compensate the staff costs and operational costs of water and electricity consumption for the autoclave treatment.
- The project also contracted a recycling company, Adonis Ltd., located in Ambatomirahavavy—20 km east of the capital, Antananarivo -to carry out shredding and the final disposal of the waste, after autoclave sterilization.



## Reducing UPOPs and Mercury Releases from The Health Sector in Africa



### Outcomes

In total, 200 kg of waste (mainly used syringes) were collected from Basic Health Centres—CSBs—of the four districts and then sterilized by the non-incineration treatment equipment—autoclaves—in the CHUJRA to finally be shredded by Adonis Company for its final disposal.

### Challenges and lessons learned

Due to a lack of logistical resources and technical support, CSBs are accustomed to burning waste in the open air. Some CSBs had already incinerated their waste before the collection teams arrived.

Some CSBs are located in isolated areas and the transport of waste from these CSBs was logistically challenging. In these cases, the technical staff, supported by the project, went as close as possible to collect them. *"We were in Anjzorobe and Ankazobe. Some of the establishments are located in very isolated areas. Health workers travelled by bicycle, motorcycle, or on foot for days to bring the waste from the vaccinations. Some even took the canoe to the collection point we were at,"* recalls Fanja RASENDRANOMENERIMALA, the project's focal point in CHUJRA.

### **Project Overview**

**Project:** GEF-financed UNDP-supported regional project: "Reducing UPOPs and Mercury Releases from The Health Sector in Africa"

**Objective:** Implement best environmental practices and introduce non-incineration healthcare waste treatment technologies and mercury-free medical devices in four Sub-Saharan African countries to reduce harmful releases from the health sector

**Financing:** \$ 6,453,195 (GEF financing)  
\$ 28,936,164 (co-financing)

**Term:** December 2015 until December 2020

**Partner:** WHO - World Health Organization  
HCWH - Health Care Without Harm

**Countries:** Ghana, Madagascar, Tanzania, Zambia

**Executing Agency:** Ministry of Public Health, Madagascar  
Ministry of Environment, Madagascar

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