

# Improved Healthcare Waste Management

## Reducing UPOPs and Mercury releases from the Health Sector in Africa

### BACKGROUND

3.5 billion people, or half of the world's population, are without access to waste management services, according to a [United Nations](#) report.

**Healthcare waste management refers to all waste generated by healthcare establishments : 10 to 25% of this waste is harmful to human health and environment according to the WHO.**



This includes infectious waste, sharps, chemical products, pharmaceuticals and radioactive waste.



Poorly managed healthcare waste poses a global threat because of potential release of unintentionally produced persistent organic pollutants (UPOPs) like dioxins and furans which are generated during combustion processes. These pollutants and mercury in medical products like thermometers accumulate in our food chain and have proven to be harmful for generations.

### OUR ACTIONS

#### 1. UPOPs releases reduction through:

- Demonstration of non-incineration treatment technologies – steam based autoclaving.
- Support to improve the healthcare waste management system through training in classification, segregation, storage, transport and disposal as well as recycling.

#### 2. Mercury releases reduction through:

- Introduction and demonstration of the replacement of mercury medical devices with mercury free ones.
- Awareness raising on mercury in the healthcare sector, facilitation of spillage management and set up of national level interim storage.
- Promoting mercury free healthcare facilities.

#### 3. Improvement of Infection Prevention and Control:

through improved healthcare waste management systems both at healthcare facility level and at community level.

### Projects also supports countries to :

Meet Minamata and Stockholm Conventions obligations

Develop framework and guidelines on waste management

Establish national training infrastructures for existing staff

## Key information

The project delivered :



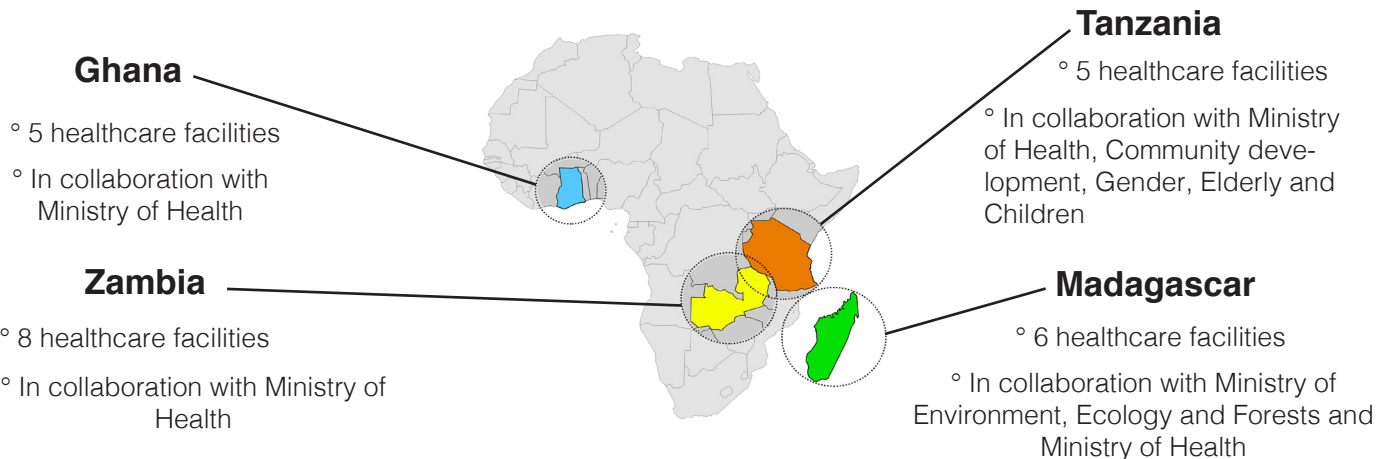
medical items, including mercury-free medical devices in exchange of others



to 24 hospitals



including 18 autoclaves



# Achievements, impacts and lessons learned

## Voices from the field

### Tackling Zambia's Health Care Waste Problem and improving human lives.

"I knew that my job was risky, but I had no choice. I have to work to feed my family" said Chola, a 30-year old father of two working at the University Teaching Hospital in Lusaka. Three months ago, the health of medical waste handlers was endangered by improper healthcare waste treatment - they had to regularly deal with cuts and needlestick injuries and were highly exposed to toxic ash and smoke from burning waste.



### Autoclave, a game-changer

"With this healthcare waste treatment plant, our hospital will now be able to effectively and safely handle its healthcare waste. This is a great step forward for both the people and the environment of Kabwe," says Dr. Victor Kusweje, the Medical Superintendent of Kabwe Central Hospital.



## Our achievements and impacts

- Thousands of healthcare workers have been trained in 4 countries and 24 pilot facilities were equipped to demonstrate advanced safe HCWM.
- Links with projects in Kenya, Uganda and Jordan have been made and has promoted a South-South dialogue through the project.
- Ghana, Madagascar and Tanzania completed national policy and regulatory improvements, adopting technical guidelines and a handbook for sustainable health care waste management.
- With the current setup, the amount of dioxins (UPOPs) releases avoided is estimated at 42.1 g-TEQ per year, > 30% above the project target of 31.8 g-TEQ per year. For comparison, this avoidance equals more than 50% of the total amount of [emitted dioxin by incineration in Germany](#) (less than 70 g-TEQ per year).

## Lessons learned

- A comprehensive, integrated approach should be implemented in parallel (policy and guidelines, review of HCWM practices including sorting, training, support to installation and maintenance of equipment and economic feasibility, including through recycling) to increase the chance of success.
- The availability of new mercury-free and non-burn treatment technologies in teaching hospitals will also facilitate on-the-ground practical education in the related fields.
- The training of healthcare professionals, especially environmental health officers and nurses, should be strengthened through higher education institutions to improve the necessary skills to support expansion of such HCWM systems.

## Call for Action

This project is made possible through the financial contribution (\$6,5 million) provided by the Global Environment Facility (GEF) and in-kind and financial aid from World Health Organization, Healthcare Without Harm and Government Partners in the project countries.

We call for additional support from countries, researchers and international bodies to join forces in reducing harmful healthcare waste releases for a better planet. Contact us through our [website](#) !



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

