

## Project Factsheet – Regional

### **Health Care Waste Management Monitoring and Data Collection**

#### **Why is data collected?**

Within the project, data is collected to assess the progress towards the reduction of Unintentional Persistent Organic Pollutants (UPOPs) emissions and the success of the implementation. In health care facilities, these emissions can result of the incineration of health care waste (HCW). Replacing low-temperature incinerators with non-incineration waste technology – autoclaves- avoids UPOPs emissions. Data collection makes it possible to observe trends in:

- The quantity and types of waste that are produced by each hospital or cluster.
- Waste segregation, and whether this is properly done
- Usage of the non-incineration HCW treatment technology—autoclave—provided by the project

Data collection aids in the measurement of the UPOPs emissions avoided. The country and facility performances regarding waste treatment can be determined through the received data.

Problems in waste management systems can be identified and solved, and more efficient ways to use the autoclaves can be discovered. For example, this may be through the identification of facility capacity to treat additional waste.

Identifying such opportunities, project sustainability and monitoring rely on the ability to precisely assess waste handling.

#### **Data Collection tools**

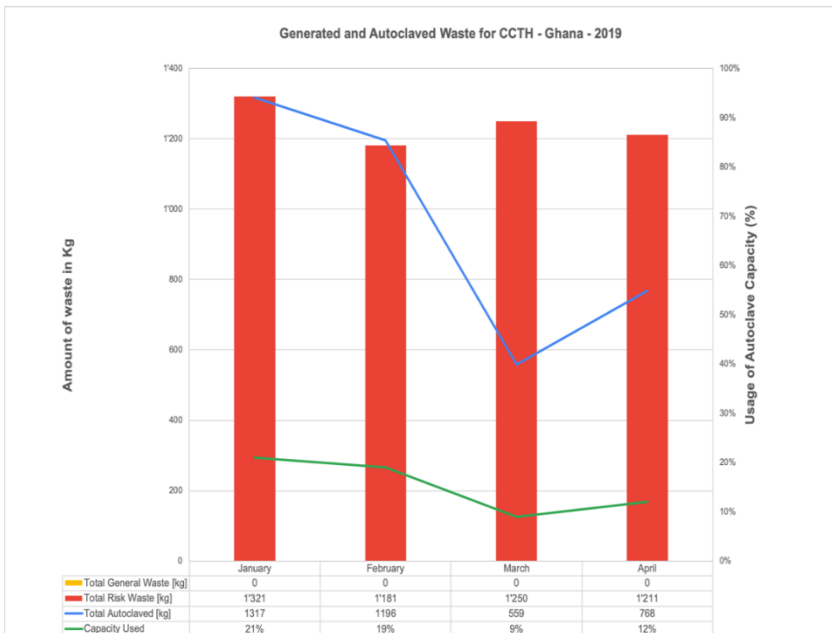
The data is being collected through tools developed by the NGO Health Care Without Harm and the UNDP. These tools are delivered to the hospitals by the UNDP offices in the project countries.

The tools track how much waste is produced and treated by the project hospitals, as well as information about segregation and the current practices of different wards and hospitals.

- **Good practice checklist:** Summarizes the data on the way the hospital wards are managing their healthcare—availability and functionality of bins, needle destroyers, labelling, segregation, and more.
- **Waste Generation Tracker:** Summarizes the data on waste generation in the hospitals—the waste is divided in different categories.
- **Autoclave log:** Summarizes the data on the use and testing of the waste treatment by the autoclaves in the hospitals—information on the quantity of the waste generated, frequency of cycles run.
- **Treatment and disposal tracker:** Observes the way waste is treated and disposed by the hospitals.
- **Waste Sales Tracker:** Tracks the waste sales to recyclers.

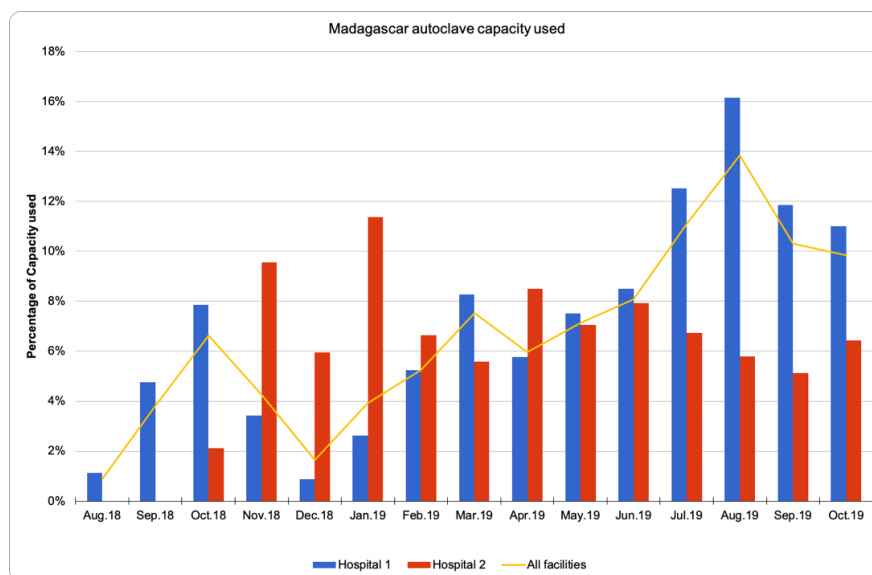
#### **Data analysis and examples**

There are different options to analyse the data received. After being checked to see if they are entered correctly and complete, the trends and results are analysed.



## Generated Waste vs Total Risk Waste Analysis

The chart shows the difference between the generated and autoclaved waste by the one of the pilot hospitals. The “total risk waste” and the “total autoclaved waste” are identical for January and February: the “risk waste” is being treated and according to the “capacity used” curve, there is more capacity to treat waste. Since the autoclave required maintenance between March and April, the “total autoclaved waste” decreases.



## Autoclave Capacity Analysis

Though the “autoclave capacity use” never exceeds 16%, the hospitals are treating all the infectious waste they have generated. Therefore, in the event of an emergency, e.g. a disease outbreak, the hospitals have the capacity to treat more waste. They also have the means to arrange for the treatment of waste for hospitals that do not yet have a good system installed. The increase observed in the chart of Hospital1 stems from the waste arriving from private hospitals

## Challenges faced

- Not all hospitals are consistent or timely with their data reports.
- Incomplete data sets make the assessment of the project success more difficult.

## Lessons learnt

- Since the success of the data collection depends on the facility personnel’s understanding of the data collection tools, providing training would be useful.
- Management ownership and engagement should be one of the main focuses.
- Automating the data collection—e.g. via smart autoclave technology—would increase efficiency.