

Terms of Reference (TOR) for National Consultant for Pharmaceutical and Laboratory Waste Management Plan for Pharmaceuticals and Health Commodities for Zimbabwe

A. Project Title: Pharmaceutical Waste Management Plan for Pharmaceuticals and Health Commodities for Zimbabwe

B. Project Description

There currently exists in Zimbabwe an issue with pharmaceutical and health commodity waste. Pharmaceutical and health commodity waste is encapsulated, solidified and stored and storage is becoming expensive and difficult to come by. In addition, there is a pile up of pharmaceutical waste that needs to be addressed. The waste guidelines of Zimbabwe (attached) and the WHO guidelines both state that high temperature incineration is the best course of action when disposing of pharmaceutical waste provided that certain precautions are taken as stated in the guidelines.

<http://www.who.int/mediacentre/factsheets/fs281/en/index.html>

In order to go ahead with incineration an implementation plan has to be in place to completely outline what is necessary to: collect the backlog of pharma waste, prepare a system to dispose of ongoing pharma waste and perform proper disposal through incineration. The incinerators must have a capacity sufficient to handle the backlog of waste as well as the current rate of waste production to fill gaps in Harare and Bulawayo (currently there is plan to install two incinerators one in Harare and the other in Bulawayo, installation planned to be achieved by October for both). Careful logistics planning needs to take place to ensure the incinerator is operating at full capacity at all times, incineration is done correctly, the machinery is maintained and staff is properly trained to operate the equipment. Process logic needs to be in place to ensure that pharma waste is approved for incineration quickly as to not cause process bottlenecks. Finally, the process of incineration needs to be financially sustainable; a reasonable cost per incineration needs to be charged so that costs are fully recuperated and the process is sustainable.

C. Scope of Work

Solid storage is not a sustainable practice as new storage space will continue to need to be created and risks of pollution remain. Expired medicine also goes missing from storage facilities and may be re-sold on the market. These risks can be mitigated by incineration and careful logistical planning to ensure newly expired or obsolete medicine is “immediately” regularly returned for disposal and incinerated in a timely manner.

To bring this plan into action a number of intermediate steps will need to be completed:

- The environmental body of Zimbabwe, EMA, will require an investigation of the waste management plan to ensure it meets the standards and best practices. To complement this, a detailed approval process needs to be created to ensure pharm waste is cleared to burn in a timely fashion.

- An assessment of the current waste build up needs to be conducted giving locations and amounts of waste to be incinerated.
- A plan to properly collect, return and dispose of the built-up waste needs to be prepared.
- An assessment of the complete cost of operations from staff, to logistics, to incineration and maintenance needs to be conducted to estimate the fee to charge and rate of incineration to be met to achieve sustainability and meet the pharmaceutical facility waste requirement.
- Given the amount of waste, a gap analysis of what two incinerators can burn vs how much waste needs to be burned will also need to be done to ensure the concept is feasible. There will be two stages; the first being the disposal of backlog and the second the regular disposal of pharma waste.
- Pharm waste will need to be deconditioned and the plastic and cardboard waste generated will need to be disposed of, or recycled, in another fashion. Two fully automated de-blistering machines will be procured and installed in both sites by Nov 2017.

D. Expected Outputs

Objectives:

- To provide a clean and environmental friendly process to completely dispose of pharmaceutical and health commodity waste in Zimbabwe with clear operating procedures.
- To propose a self-sustainable process in terms of cost recovery where the polluter pays the cost of disposal.
- To solve the current problem of solid pharmaceutical waste piling up in the supply chain.
- To have a working logistics system in place that fits into the current supply chain system for medicines from arrival in the country to incineration.
- To have adequate training in place for staff and equipment and maintenance to ensure that incineration takes place efficiently and by best environmental practices. The training will also involve the preparation, sorting and deconditioning but also the disposal of packaging materials and residues.
- A process of deconditioning and disposal/recycling of plastic and cardboard packaging prior to incineration.

Outputs:

- A logistics plan to cover the collection and transport of pharm waste and laboratory reagents to each of the incineration facilities and the disposal of deconditioned plastic waste.

- Staff requirements and training necessary to get staff up and running on the management of the facilities.
- A detailed look at the current backlog of pharma waste and laboratory reagents, locations and amounts. The review of the current backlog will be done in Harare and Bulawayo focusing on the NatPharm warehouse, one central hospital, one provincial hospital, one district hospital and two primary health care facilities.
- A timeline of how long it will take the incinerators which are intended to be procured, operating at full capacity to dispose of the backlog of waste.
- A detailed breakdown of the current rate of pharma waste creation at Harare and Bulawayo sites vs. the theoretical maximum rate of incineration to yield a Gap, either in excess or deficient capacity.
- A detailed breakdown of task and time requirements for each stage within the facility. For example: time it takes to do a full burn, time to decondition a full storage load, time it takes to prepare and clean the incinerator for the next load and any other tasks and ongoing maintenance activities.
- A standard breakdown of average volume and weight reduction based on the effect of the deconditioning procedure. (documenting a small pilot for deconditioning)
- A detailed analysis of all the costs associated with incineration (including logistics and fuel costs) broken down by kilogram to determine an appropriate minimum fee structure to make the operations financially sustainable.
- SOPs and safety plan for waste management, for the entire process as well as per staff member responsible. The SOP will need to be submitted as an electronic copy in both Word and PDF and a hard copy which is bound and in Word version.
- Milestones will be as follows:

Milestone	Timeline
Inception report draft	2 days
First draft report	8 days
Final report	4 days

E. Institutional Arrangement

Actors and stakeholders to be involved include:

- Ministry of health and Child Care Directorate of Laboratory services Directorate of pharmacy services (DLS/DPS), NatPharm, Medicine control Authority of Zimbabwe (MCAZ), EMA, UNDP, Private Sector of Zimbabwe, Contractors/Engineers

The target group is MOHCC together with NatPharm as they have the structures and

incentive to deal with the pharmaceutical waste. MOHCC will have the ownership of the whole project. The responsible department for the project will be the Directorate of Pharmacy Services and Laboratory services on issues which are technical whilst UNDP together with MCAZ will be responsible for all contractual aspects.

Roles and expertise of implementing partners:

- Requires a contractor with knowledge of pharmaceutical and Laboratory commodities waste disposal, incineration and logistics.
- Requires the expertise of the regulatory board and in country supply chain and pharma waste or laboratory commodities situation to ensure the process is with respect to the environment, and sustainable.
- Requires a clear definition of what constitutes pharmaceutical waste as well as the current levels and locations of the waste from the MOHCC.
- Requires guidance, direction, funding and project oversight from MOHCC and UNDP.

F. Duration of the Work

The duration of the consultancy will be for a period of 14 working days excluding weekends

G. Duty Station

- The consultant will be based in Harare with field visits to selected facilities as above during the course of the consultancy work.

H. Qualifications of the Successful Contractor

- Advanced University Degree (at least Masters), in Pharmacy, Laboratory sciences, Logistics, Environmental Sciences or related sciences from a recognized educational institution.

Experience:

- At least 8 years' experience in Pharmaceutical or Laboratory and Logistics;
- A least 8 years' experience in waste management;
- At least 8 years' experience in management policy or strategy formulation at national level;
- Proficiency in MS Word, Excel, and PowerPoint required.

Skills, Traits and Competencies

- The individual will need to have a good understanding waste management issues in the Zimbabwean context;
- Demonstrated knowledge of methods and tools integrated waste management including chemical waste;
- International experience on advising public and private sector on waste management;
- Demonstrated knowledge of approach and methodology for waste management policy and strategy formulation;
- Working experience in Zimbabwe is desirable;

Language:

- Proficiency in English is required.
- Strong verbal and written skills and ability to work with a team of professional staff and other colleagues;
- Ability to work with minimal supervision be proactive and creative

I. Scope of Bid Price and Schedule of Payments

- Lump Sum contract and payment to be as follow:

Milestone	Timeline	payment
Inception report draft	2 days	20%
First draft report	8 days	50%
Final report	4 days	30%

Application

Interested candidates should submit Technical and Financial Proposals in sealed envelopes mark “Consultancy for Waste Management” and send to:

UNDP Zimbabwe
GFATM Programme Management Unit
Block 7, Arundel Office Park,
Mt Pleasant, Harare

Zimbabwe

Att: PSM TEAM

or

Email: zw.bids.gfatm@undp.org

Deadline for applications is Friday 29th September 2017 at 12.00pm.

Only shortlisted candidates will be contacted.