



# **MEDICAL WASTE MANAGEMENT VISIT TO GHANA**

**MINISTRY OF HEALTH  
UGANDA -20 June 2019**



# BACKGROUND

- ❑ Uganda completed National Supply Chain Assessment (NSCA) in 2018
- ❑ 11 different modules were assessed, of which waste management was part
- ❑ Waste management did not perform well; Uganda does not have a policy on waste management
- ❑ Global Fund has come in to support the policy development and implementation guidelines



# Objective of the visit

- Learn policies enacted at all levels (National, provincial, district. HF level) that provided the enabling environment to set up the HCWMS
- Learn how the system functions at all the levels
- Standards set up for transporters of medical waste from one level to another
- The fee system for waste processing at all the levels and how this is determined
- How waste is processed at all levels
- How compliance with set standards is maintained and which entity is ensuring this
- How long it took to establish the system from policy enactment to full roll out
- Private sector involvement in HCWMS



# Highlights of places visited

Place	Highlights	Lessons learnt
MoH and UNDP offices	<ul style="list-style-type: none"><li>• UNDP created awareness on the hazardous effects of mercury in the environment and the need to manage waste in an environmentally friendly manner</li><li>• Highlighted the process for policy development</li><li>• Relevant committee needed to draft the guidelines and policy</li><li>• Stakeholder engagement is key for success</li><li>• Monitoring and evaluation is important to inform policy review</li></ul>	<ul style="list-style-type: none"><li>• Commitment from the highest level office is key</li><li>• Multi-disciplinary committee is important for ownership, buy-in and success</li><li>• Incorporate health care waste management training in health worker training schools</li><li>• Laws created and enforced from the MOH policy</li></ul>



# Highlights of places visited

Place	Highlights	Lessons learnt
Zoom pak	<ul style="list-style-type: none"><li>• This is a waste treatment plant that uses an autoclave – since 2015</li><li>• Manages medical infectious waste only – no pharmaceutical waste</li><li>• Serves 112 health facilities including one Government facility</li><li>• Charges \$1.2/kg of waste</li><li>• Tests are done on the treated waste before disposal to the landfill</li><li>• Local capacity available to service and maintain the autoclave - but have relationship with the manufacturers – Akarmark in Turkey</li></ul>	<ul style="list-style-type: none"><li>• With law enforcement, private facilities comply to the waste management policy</li><li>• Cost drivers are electricity and fuel</li></ul>



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KATH	<ul style="list-style-type: none"><li>• Teaching hospital with an eco-friendly incinerator – donated by GIZ</li><li>• Addfield model, MP400 incinerator, 400 liter capacity, burns at 1001 C</li><li>• Handles 3,424kg/month</li><li>• Handles waste from the surrounding health facilities at a fee of \$1/kg to cover running costs</li><li>• Cost drivers include LPG gas, PPE, employers, sanitizers</li></ul>	<ul style="list-style-type: none"><li>• Saves money in the long run as it handles all waste – medical and pharmaceutical waste</li><li>• Operators need to be trained to follow the user manuals to avoid unnecessary breakdown</li><li>• Support from the manufacturer is not sufficient</li><li>• Specifications are important before purchase</li></ul>



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Place	Highlights	Lessons learnt
Winneba trauma and specialized hospital	<ul style="list-style-type: none"><li>• Has a Hydroclave which handles infectious waste; donated by Dutch government – Ecodas model</li><li>• Reduces waste to 20% after treatment before disposal to the landfill</li><li>• Uses 50 liters of water, 8 kilo watts of electricity per cycle</li><li>• Spare parts are not locally available</li></ul>	<ul style="list-style-type: none"><li>• Hospital has a waste management team – multidisciplinary</li></ul>
Cape coast teaching hospital	<ul style="list-style-type: none"><li>• Has an autoclave but had broken down by the time of the visit</li><li>• Handles infectious waste before disposal to the landfill</li><li>• Hospital produces 1300kg of waste per day</li></ul>	<ul style="list-style-type: none"><li>• Sustainability plan is needed before the UNDP project ends</li><li>• Local hospital engineers should be trained on autoclave maintenance</li></ul>



# Recommendations

## Machine maintenance

- Develop memorandum of understanding at onset with manufacturers to maintain the machines
- Manufacturers should train local hospital staff on maintenance besides just being present during installation
- Presence of local agent representative of the manufacturer is key for trouble shooting

## Running costs

- Hospitals to keep logs on waste managed, running costs per month so as to gauge expenditure
- Sustainability plan needs to be developed before project end – e.g. bin liners should be incorporated in hospital/central medical cost
- Standardized the technologies used for health care waste management in health care facilities
- Display Standard Operating procedures need displayed for new staff/students to quickly adapt easily





## Next steps

- Debrief in Uganda – MPM TWG and PS
- Set up a task force and develop their terms of reference
- Develop TORs for consultant
- Develop scope of work for the medical waste management policy
- Draft waste management policy