

Wastewater Production, Treatment, and Use in Uganda

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Wastewater production and treatment

Wastewater production and Treatment

- Wastewater mainly generated in Uganda is Domestic and Municipal waste
- About 7.62million m³/year of wastewater is generated (Dominant wastewater treatment is the primary type) and about half in Kampala only
- On average only about 2% of the people in 22 towns have access to sewerage systems

Wastewater treatment methods in Uganda

- Conventional Sewage Treatment Works (CSTW)
- Sewage Stabilization Ponds (SSP)
- Constructed wetlands

Wastewater use and/or disposal

- No formal sector irrigation using wastewater in Uganda
- On a small-scale over 100 road side florists and horticultural growers use sludge/dried waste as a soil conditioner in Kampala
- Few cases of waste used in landscaping for household lawns
- Wastewater is discharged into Wetlands for Tertiary Treatment



Sludge/ soil conditioner



A florist at work

Regulations and implementation of guidelines

- No National Irrigation Policy and guidelines on use of Wastewater for irrigation/agricultural production
- Wastewater discharge regulations, 1998
- The National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations, 1999;
- WHO, (2006), Guidelines for the Safe Use of Wastewater, Excreta and Grey-water: Volume 4, Excreta and Grey-water Use in Agriculture. WHO, Geneva, Switzerland

Challenges

- No national guidelines on safe use of wastewater in agriculture
- Limited public awareness on the use of wastewater
- Cultural attitudes/negative perception on use of wastewater
- Spread of diseases (e.g. mosquito) from wastewater
- Existing treatment plants and technology used is very old
- Only 10% of Kampala's Central Business District is served
- Connection Services are expensive for most clients
- Encroachment on wetlands for tertiary treatment
- Limited skilled personnel in treatment technologies
- The country predominantly uses on-site sanitation/pit-latrines

Government's approach to wastewater management

Institutions involved in wastewater management

- The Ministry of Water and Environment (MWE) is the lead government agency of the Water Sector
- National Water and Sewerage Corporation (NWSC) undertakes sewerage services in urban centres, operation and maintenance and investment in sewerage infrastructure
- National Environment Management Authority (NEMA) is the institution responsible for regulating the use and management of Wetlands and Environment related issues
- Irrigation and Drainage is a mandate of the Ministry of Agriculture, Animal Industry and Fisheries
- The National Water Policy is under review
- Drafting of The National Irrigation Policy and is on-going

Possible solutions

- Develop national guidelines on use of waste water in Agriculture
- Sensitization households on how wastewater could be utilised in agriculture and the associated potential benefits
- Proper management of wastewater to prevent contamination of the environment and disease prevalence
- Infrastructure development and coordination of actors in the agriculture and water sector
- Capacity Building and networking (institutions involved in Irrigation and Waste management)