Wastewater Production, Treatment, and Use in Uganda

Name(s) of the country representative(s)
1. Ronald Kato Kayizzi
2. Tom Damulira Tomusange
3. Kerudong Acayerach Paskwale
Wastewater production and treatment

Wastewater production and Treatment

- Wastewater mainly generated in Uganda is Domestic and Municipal waste
- About 7.62 million 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;
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)