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WASTE MANAGEMENT IN LOCAL GOVERNMENTS IN UGANDA: CHALLENGES, FUNDING GAPS AND BEST PRACTICES

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on funding for Environment and Natural Resources Departments**

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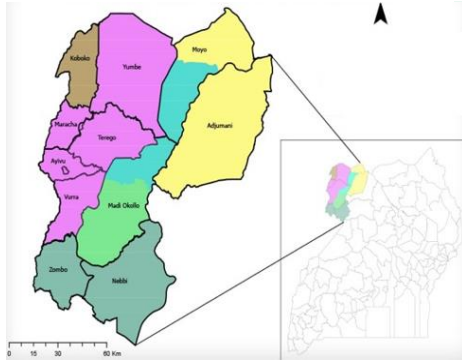
Waste management funding gaps

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Some best practices in waste management

Conclusion

Muni University should host the Institute?



Public University in West Nile region with regional and national mandates

Specializes in Science, Technology & Innovation, Management Science with equipment for research



Facilities for training and Skilling, including;

- Computer labs
- Business Incubation Center
- West Nile Innovation Hub



Has developed capacity and experience in Teaching, Research & Community engagement

Support from Management for Capacity Building, Community Engagement, Gender and inclusion



Muni University: 6 Faculties & Over 30 Programs

Undergraduate PROGRAMMES

Bachelor of Information Systems
Bachelor of Information Technology
BSc. with Education (Biological) BIO/CHE
BSc. with Education (Biological-Physical Educ.) BIO/P. E
BSc. with Education (Physical) MAT/PHY, MAT/CHE, MAT/GEO
BSc. with Education (Physical Education) MAT/P. E
BSc. with Education (Computer Studies) MAT/CST, PHY/CST, GEO/CST
BSc. with Education (Economics) MAT/ECO, PHY/ECO, ECO/CST, ECO/P. E
Bachelor of Science with Education (Agriculture)
Bachelor of Education (Secondary)
Bachelor of Education Primary (Arts)
Bachelor of Education Primary (Sciences)
Bachelor of Early Childhood Care and Education
Bachelor of Nursing Science
Bachelor of Business Administration and Management
Bachelor of Economics
Bachelor of Procurement and Supply Chain Management
Bachelor of Science in Agriculture
Bachelor of Science in Environment and Natural Resources
Bachelor of Science (Physical)
Bachelor of Science (Biological)

Graduate PROGRAMMES

Master of Science in Computer Science
Master of Science in Artificial Intelligence
Master of Business Administration
Master of Education (Education Plg and Mgt)
Master of Tourism and Hospitality Management
Master of Science in Biodiversity Conservation
Master of Science in Chemistry
Master of Science in Mathematics
MSc. in Climate Change and Disaster Risk Management
Master of Public Health

Postgraduate Diploma in Financial Management
Postgraduate Diploma in Human Resource Mgt
Postgraduate Diploma in Education

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graph TD; A((Type of wastes Generated in LGs)) --> B[1. Solid Waste]; A --> C[2. Organic Waste]; A --> D[3. Construction and Demolition Waste]; A --> E[4. Hazardous Waste]; A --> F[5. Medical waste]; A --> G[6. Electronic Waste (E-waste)]; A --> H[7. Liquid Waste]; A --> I[8. Industrial Waste]; A --> J[9. Plastic Waste];
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Type of wastes Generated in LGs

1. Solid Waste: household waste generated by residents in urban and peri-urban areas.

2. Organic Waste: consists of biodegradable materials e.g., agricultural residues, animal manure, etc.

3. Construction and Demolition Waste: includes materials generated during construction, renovation, and demolition activities

4. Hazardous Waste: pose a risk to human health or the environment, e.g., batteries, pesticides, paints and solvents

5. Medical waste: used syringes, discarded medicines, laboratory samples. requires special handling and disposal

6. Electronic Waste (E-waste): a rapidly growing waste stream e.g., computers, mobile phones, televisions, refrigerators, etc.

7. Liquid Waste: includes wastewater generated from households, commercial establishments. Domestic sewage and industrial effluents

8. Industrial Waste: generated by manufacturing processes, e.g., chemicals, metals, sludge & other industrial byproducts

9. Plastic Waste: a significant environmental in Uganda and worldwide. E.g., single-use plastic items like plastic bags, packaging materials, bottles



Waste Management Challenges in Local Governments

- 1. Limited infrastructure waste mgt in many LGs** - waste collection systems, landfill sites, & recycling facilities remain a challenge.
- 2. Insufficient funding in** most LGs - Hindering implementation of efficient waste management practices.
- 3. Inadequate, irregular or nonexistent waste collection services:** causing health hazards, environmental pollution, and the spread of diseases.
- 4. Lack of public awareness and participation:** No waste segregation, recycling, and responsible disposal. Complicates efforts by LGs
- 5. Informal waste sector:** Waste pickers, small-scale recyclers, etc. Helpful but lack regulation and formal integration into the waste management system, leading to inefficiencies and potential health risks
- 6. Weak enforcement of waste mgt policies and regulations:** Inconsistent implementation and limited penalties for non-compliance– promote improper waste disposal practices & illegal dumping.
- 7. Limited capacity and technical expertise for effective waste mgt practices:** e.g., lack of skilled personnel and equipment, for sustainable waste mgt.

Waste Management Challenges cont'd

- 8. Inadequate/lack of waste segregation at the source** – affecting effective waste management.
- 9. Weak monitoring and enforcement:** Illegal dumping, and non-compliance with waste management regulations.
- 10. Limited accessibility to some areas due to lack of or poor road network in urban and peri-urban areas**
- 11. Poor management of hazardous waste management:** Including medical waste, electronic waste, and chemical waste.
- 12. Limited/lack of accurate data/information on waste:** - waste generation, composition, and disposal patterns at LGs affects informed decision-making, policy formulation, and the implementation of effective waste management strategies



Waste Management Funding Gaps in LGs in Uganda

- 1. Limited financial resources** - limited budgets allocated for waste management - affecting proper waste collection, transportation, disposal, and recycling initiatives.
- 2. Inadequate revenue generation:** Most LGs have a low revenue base affecting delivery of essential services
- 3. Low priority given to waste management:** Not always prioritized in the allocation of financial resources within LGs due to other pressing needs
- 4. Limited access to external funding:** LGs have low capacity in accessing other funding sources (outside gov't) for waste management. Complex application processes and stiff competition for grants eliminates LGs.

Some Best Practices for Waste mgt in LGs

- 1. Advocacy and policy reform:** LGs can advocate for increased funding for waste management at the national level. Engaging with policymakers, highlighting the importance of waste management, and pushing for policy reforms that allocate more resources to this sector.
- 2. Implement a waste segregation system:** encouraged residents to separate their waste into different categories such as recyclables, organic waste, and non-recyclables. Provide separate collection bins for each category to facilitate proper waste disposal.
- 3. Establish and promote recycling programs to reduce the amount of waste sent to landfills.** Collaborate with recycling companies or NGOs to collect & process recyclable materials such as plastic, glass, paper, and metal.
- 4. Public Awareness and Education:** Conduct awareness campaigns and educational programs to raise public awareness about waste management practices.
- 5. Waste Collection and Transportation:** Establish an efficient waste collection system with designated collection points and schedules.

Best practices cont'd

6. Stakeholder Collaboration: Collaborate with CBOs, NGOs, private companies, and other stakeholders to strengthen waste management efforts. Engage local communities in waste management initiatives, involve the informal sector in recycling activities, and seek partnerships for funding and technical support.

7. Encourage Green Initiatives: Support and incentivize green initiatives in waste management. For sustainable waste management practices, eco-friendly technologies, circular economy principles.

8. Public-private partnerships to bridge funding gap: Explore partnerships with private companies and NGOs to leverage their expertise and resources in waste management. PPPs can help bridge the funding gap and improve the efficiency of waste management initiatives.

9. Waste Awareness in Schools: Incorporate waste management education into school curricula to instill good waste management habits in children from an early age. Encourage schools to implement waste segregation systems and organize awareness campaigns involving students, parents, and teachers.

What can Universities and research institutions contribution?

- i. **Innovation and Research:** to support the development and adoption of new technologies, techniques, and strategies that can improve waste management practices, increase resource recovery, and minimize environmental impacts.
- ii. **Generate accurate data/information on waste:** - waste generation, composition, and disposal patterns to support informed decision-making, policy formulation, and the implementation of effective waste management strategies (Ordinances and bylaws)
- iii. **Support a regional approach for waste management** – share expertise and resources – what role can WEDA play?
- iv. **Capacity Building:** Enhancing knowledge and skills to improve the efficiency and effectiveness of waste management operations.
- v. **Support access to external funding by developing joint funding proposals**

Conclusion

1. It's important for LGs to implement effective waste management strategies to handle the different types of wastes in an environmentally sustainable manner - minimize their impacts
2. Waste management requires dedicated commitment and collaboration from LGs, residents, and other stakeholders.
3. By implementing some low cost best practices, LGs can promote sustainable waste management and contribute to a cleaner and healthier environment
4. There is need for partners to support in strengthening the capacity of LGs to implement best practices in waste management
5. Special attention needs to be given to management of plastic waste in Uganda



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