Linking organic waste and agriculture in a circular economy

How to solve the organic waste problem? A networking and sharing forum for local authorities and stakeholders – LEARNING SUMMARY

This summary document provides an overview of learning and insights from a forum for Local Authorities to discuss organic waste management, hosted by Kaduwela Municipal Council (KMC) in Colombo Sri Lanka, on 19 June 2024. The goal of the forum was for representatives from Local Authorities and KMC to informally share activities and experiences and provide a rich opportunity for knowledge exchange and potential for future collaborations to manage municipal organic waste. The forum included 32 representatives from local authorities in the Western Province including community development officers.



For organic waste products to be used optimally in agriculture, there needs to be research and development conducted.

After the presentations, local authorities were invited to discuss in small groups questions about how to improve organic waste management:

- What types of connections do Local Authorities use to collect, manage, and distribute the organic waste? And how were the connections established and maintained?
- What are the missing links between organic waste management and linking to agriculture?
- What types of connections and strategies need to be created to improve links between organic waste council output and use in agriculture?
- Based on the forum, what takeaway and action would your local authority take forward for more learning and keeping in touch with the local authorities?



The figure above shows the ideal flow of food waste in a circular economy.

About the Research Partnership

The forum was hosted by KMC in collaboration with the project, 'Sustainable Organic Waste Value Chains'. The project is implemented through a partnership between the Institute for Sustainable Futures at the University of Technology Sydney (UTS-ISF), the International Water Management Institute (IWMI), Janathakshan (GTE) Ltd, and Sabaragamuwa University of Sri Lanka (SUSL).

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See work from the research partnership to date: Click here.





Software has been implemented to track the collection, processing and distribution of organic waste.

Existing connections for waste management

Local Authorities shared examples of engaging with their communities to increase awareness of waste separation, for example using leaflets and educating via schools and community groups. They described examples implementing systems, incentives and by- laws to improve waste management.

Missing links

Local Authorities shared challenges including difficulties incentivizing the agricultural industry to use organic waste products. There are also challenges in transporting organic products (compost) from urban to agricultural areas.

Needed connections/ strategies

Local Authorities identified the need to strengthen connections between waste management and agriculture. Such connections should increase farmers' awareness of the benefits of organic waste products, increase funding for waste transport infrastructure and research to explore the use of organic waste in agriculture. The connections should also promote regulation change so the two areas are integrated.











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Partial knowledge and still more to learn

During the forum, Local Authorities shared with one another how they manage organic waste as well as some of the challenges they face.

Forum participants also highlighted missing links - such as farmers not being aware of the availability and benefits of organic waste products. Several strategies for improving links between the organic waste produced and agricultural use were highlighted. The strategies looked at funding as well as the need for networks and partnerships between stakeholders. This forum gave Local Authorities an opportunity to discuss waste management in a way they don't usually have.





There is a desire to establish regular communication between local authorities so they can share the lessons they've learned and best practices.



The waste management workforce is inadequate in skill and number. There needs to be recognised certifications to improve waste quality and recognise workers.

Key learnings from the forum:



Farmers aren't using organic waste products because they aren't informed and the costs (potentially) outweigh the benefits.

Inefficient transport for organic waste

Need for partnerships and networks



Awareness through a range of avenues

Use and challenges of regulations

- Farmers are not aware of the availability and benefits of organic waste products such as compost. Financial incentives for farmers to use organic waste products are insufficient.
- · Potential limits on the agricultural use of organic waste products because of regulatory hurdles. · Concerns about the quality and consistency of organic waste-derived products for agricultural use. · One avenue for addressing farmer concerns is using a tender process to generate competition among the sellers.
- · Infrastructure such as efficient organic waste transportation needs to be invested in so waste can get from urban areas to agricultural areas.
- · Local Authorities want partnerships and networks between them, farmers and waste management companies.
- · Local Authorities generate awareness of waste segregation through schools, pre-schools, societies and organisations, community groups, individuals and religious places
- · Legislation and policies have been enacted that provide guidelines for waste management and mandate the separation of organic waste. · The use of some organic waste products in agriculture may be limited by regulatory hurdles. · Regulatory changes are needed to support the integration of agricultural practices with organic waste management.

Invitation for continuing engagement



Our research partnership welcomes continuing multi-stakeholder engagement. To reach us please email: Keren Winterford (keren.winterford@uts.edu.au) or M Esham (esham@agri.sab.ac.lk)

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