

Guideline for organic waste treatment

in East Africa

Period:	01.2021–09.2022
Countries	Ethiopia
Project partners	German Biomass Research Centre (DBFZ), German RETech Partnership e.V., ICU – Partner Ingenieure, Rodiek & Co. GmbH, INTECUS GmbH, Cifa Onlus

Organic waste treatment in Ethiopia

Around 50-70% of Ethiopia's waste generation comprises organic materials, which on the one hand cause serious environmental problems if not properly treated, and on the other hand can be very valuable resources if recovered. Appropriate handling of organic waste is crucial to protect the climate, provide sustainable energy and recover essential resources. Various technical solutions for a sustainable use of organic waste and residual materials are available and already successfully implemented, e.g. in Germany. This knowledge and technical approaches can be transferred and adapted to local conditions worldwide. A challenge is to address and present these opportunities to local actors, decision-makers and other target groups in order to overcome hurdles for broad application.

The project

Using the example of Ethiopia, this project developed a guideline for organic waste treatment in East Africa. It serves as a legal, technical and economic guideline for dealing with organic waste and can be used as a basic strategy for politics, administration, research and the private sector for East African countries.

This project targeted four key activities: building a strong network with local stakeholders, analysing the current state of organic waste treatment in the East African Region, elaborating a proposal for suitable

technical solutions, and transferring knowledge to relevant target groups.

Collaboration with stakeholders

The project established a strong network of actors from different sectors of organic waste management, consisting of planners, NGOs, scientists and other experts from the waste sector, and organized relevant stakeholders in a working group. The project followed a participatory approach to form fruitful collaborations, which will support Ethiopia and other East African countries to grow towards a more circular and sustainable economy, reducing environmental issues caused by inappropriate management of organic waste.

Guideline for organic waste

Building on the analysis of the status quo of organic waste management in East Africa, the guide provides a sound basis for decision makers and describes a range of technical solutions for organic waste management. Ethiopia is particularly highlighted as a country when it comes to case studies and data. The guide provides an overview of the definition of biodegradable waste as well as current practices in the region and their social, environmental and climate impacts. It then includes a chapter on organic waste collection and separation, processes that largely determine waste composition, and next steps. After the description of treatment concepts focusing on composting, anaerobic digestion and mechanical biological treatment, the guide assesses costs and potential for implementation in urban and rural areas in East Africa.

Achievements

1. A strong network of actors from different sectors of organic waste management was established - consisting of planners (ICU, Rodiek, INTECUS), NGOs (Cifa Onlus), scientists (DBFZ) and other experts from the waste sector (RETech).

2. The current state of organic waste handling in East Africa was evaluated, based on available data and through personal exchange with Ethiopian actors in organic waste management (Addis Ababa City Solid Waste Management Agency, Hawassa Wubet and others).
3. Based on the evaluation and the expertise of the organic waste management network, a technical guideline for the implementation of organic waste management concepts was developed. The guideline supports decision-makers and actors from rural and urban areas in developing and implementing a strategy for organic waste management.
4. A wide variety of stakeholders were involved in the discussion of results at different conferences. As a final step, the results were discussed with stakeholders from the organic waste sector in a workshop in September 2022 in Addis Ababa.
5. The guideline and the baseline study provide a solid basis for informing decision-makers about a range of efficient and proven technical solutions for dealing with organic waste and for giving planners and developers a good starting point for future planning.

PREVENT Waste Alliance

The PREVENT Waste Alliance serves as an international ‘think and do tank’ for circular economy practitioners. As a platform for knowledge exchange and international cooperation, it brings together organisations from the private sector, academia, civil society and public institutions. PREVENT’s mission is to advance the circular economy in low- and middle-income countries by minimising waste, eliminating pollutants, and maximising the reuse of resources in the economy worldwide.

This project was selected in a call for innovative and scalable solutions to build a circular economy.

The PREVENT Waste Alliance was launched in 2019 by the German Federal Ministry for Economic Cooperation and Development.



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Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
GmbH
PREVENT Waste Alliance
Friedrich-Ebert-Allee 32 + 36
53113 Bonn
Germany

T +49 61 96 79-0
F +49 61 96 79-11 15

E info@giz.de
contact@prevent-waste.net | www.giz.de

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More information: www.prevent-waste.net/en/