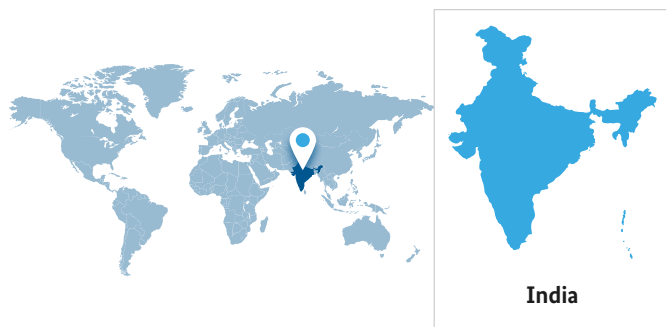




Management of Organic Waste in India



Background

India generates 62 million tonnes of municipal solid waste per year, of which 75% is collected. Only 20% of collected waste is treated (CPCB, 2017-2018)¹. About 80% of this waste lands up in landfills, thus contributing significantly to environmental degradation and posing risks for human health (MoUD, 2016)². Waste generation in the country is likely to more than double by 2030, increasing up to 165 metric tonnes (MT) per year (World Bank, 2018)³.

Of the municipal solid waste generated, 50% is composed of organic waste. India has the potential to reuse this share in order to produce 5.4 MT of city compost annually. According to the Ministry of Housing and Urban Affairs (MoHUA, 2018-2019)⁴, there are almost 700 functional compost plants in the country with an annual production capacity of 18.9 million MT. However, given that most plants are under-utilized, currently only 0.2 million MT are produced from city compost.

The “Swachh Bharat Mission Urban” launched in 2014 by the MoHUA, provided a framework to tackle two of the country’s key urban challenges: the management of municipal solid waste, and sewage. The Ministry of Environment, Forest and Climate Change (MoEFCC)

published a revised version of the Solid Waste Management Rules in 2016, strengthening integrated solid waste management following the international waste management hierarchy. Despite several initiatives taken up by the government to foster the production and (re)utilization of city compost as a business model, as well as to encourage its subsequent use by farmers, organic waste management still faces various challenges. These include poor or no segregation at source, contamination with extraneous material, unsafe application, higher costs compared to other products leading to a mistrust associated with city compost and organic fertilizer.

Aim of the cooperation



With a focus on integrated waste management, the project improves sustainable organic waste management practices in the three cities of Kanpur, Kochi and Port Blair, in states, and at the national level. This includes centralised and decentralised systems of organic waste management like aerobic composting and biological methanation.

The measures implemented in this module are envisaged as an accompanying measure to the project “Cities Combating Plastic Entering the Marine Environment”. These measures contribute directly to the UN Sustainable Development Goals of making cities and human settlements inclusive, safe, resilient, and sustainable (SDG 11, target 11.6).

- 1 Central Pollution Control Board (CPCB) (2017-18). Annual report. Ministry of Environment, Forest, and Climate Change. Government of India
- 2 Ministry of Urban Development (2016). Municipal Solid Waste Management Manual. Government of India
- 3 World Bank (2018). What a Waste 2.0. A Global Snapshot of Solid Waste Management to 2050. Urban Development Series. World Bank Group.
- 4 Ministry of Housing and Urban Affairs (2019). Annual Report 2018-19. Government of India

What we do

The project activities include issues of segregation at source, quality control of compost, testing, and linking with markets in urban and peri-urban areas, implemented at the city, state, and national level:

- **City level (Kochi, Kanpur, and Port Blair):** We review ongoing organic waste management and support the development of a city strategy for organic waste management, including recommendations and a roadmap for implementation. We support the implementation of technical measures for improved organic waste management in each city.
- **State level (Kerala, Uttar Pradesh, and Andaman & Nicobar Islands):** We develop and review existing state strategies, identify gaps, provide recommendations and develop a roadmap in three states for the rollout of sustainable organic waste management. We develop training modules for organic waste management and capacity development measures for officials (based on the state strategy).
- **National Level (MoHUA):** We provide advice on sustainable organic waste management at the national level for implementation in states and cities. We conduct training and capacity-building measures.

In addition, awareness raising activities for organic waste management and standard operating procedures are developed at city and state levels. Furthermore, delegation visits to Germany are planned for the municipal, state and national officials accompanying the implementation measures.

Key results

- Guidelines, digital tools, standard operating procedures and a roadmap for upscaling have been developed under the umbrella of the MoHUA and the state urban development departments of Kerala, Uttar Pradesh, and the Union Territory of Andaman & Nicobar Islands. These have been accompanied by capacity building and awareness campaigns.

Imprint

Published by
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Global Project
"Support of the Export Initiative Environmental Protection" (BMUV)
project duration 2019 to 2023

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Design
Crolla Lowis GmbH, Aachen / Germany

Printed by
Braun & Sohn, Maintal, Germany
Printed on FSC-certified paper

- One technical measure for sustainable organic waste management has been implemented in three cities and at state level.
- The capacities of partners in the areas of organic waste management have been strengthened with tailored training and capacity building measures.
- The national consulting partner Saahas has completed three city action plans for Kochi, Kanpur and Port Blair
- The University of Rostock has completed field visits to the partner states of Kerala and Uttar Pradesh and the partner city Port Blair. State strategies have been developed and are under review.

Project partners

- Indian Ministry of Housing and Urban Affairs
- Non-profit organization Saahas
- University of Rostock
- Partner cities: Kochi, Kanpur & Port Blair
- Partner states: Kerala, Uttar Pradesh and Nicobar and Andaman Islands



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As at
June 2022

GIZ is responsible for the content of this publication.

On behalf of
Federal Ministry for the Environment,
Nature Conservation, Nuclear Safety and Consumer Protection (BMUV)

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On behalf of:



Federal Ministry
for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection

of the Federal Republic of Germany