

GLOBAL FORUM OF CITIES FOR CIRCULAR ECONOMY (GFCCE)

AGREED COMMON AGENDA FOR ACTION





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This document has been prepared based on the discussions held during GFCCE-1 (Dar es Salaam, July 2022), GFCCE-2 (Dar es Salaam, January 2023) and GFCCE-3 (India, May 2023)

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Introduction

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The third GFCCE was attended by senior Government officials from ministries dealing with environment and solid waste management issues and senior representatives from the city governments. The 5-days event in India was a combination of intensive learning from officials from India who shared the experiences from implementation of the flagship Swachh Bharat Mission (Clean India Mission) since 2014 with reference to the existing set of Indian policies to manage Solid Waste at National, State (Regional) and Local Government level and a two-days exposure visit to the city of Pune in the Indian State of Maharashtra. The following agenda for action has been agreed by the forum members to drive changes in their respective nations to institute a sustainable ecosystem of solid waste management.



Waste Quantification and characterization

During the event, The forum member states deliberated and agreed that waste quantification and characterization is of paramount importance to create an inventory of the waste sources, total quantity generated and percentage of various waste streams (bio-degradable, non-biodegradable (plastics, paper, metal glass, health care, electronic, hazardous, footwear, sanitary etc.) to effectively plan the requirement of manpower, collection fleet, waste treatment and processing facilities, disposal mechanism etc. in order to optimize the operational costs and augment revenue generation. In India, the national institution called the Central Public Health and Environmental Engineering Organization (CPHEEO) under the Union Ministry of Housing and Urban Development clearly mandated the need and process of waste quantification and characterization for Indian cities (https://cpheeo.gov.in/upload/uploadfiles/files/Part2.pdf). The forum agreed to make every possible effort to adopt the learning from the GFCCE-3 by making necessary changes in their policy ecosystem as a fundamental criterion for managing solid waste.



Separation (segregation) of waste at source

Separation of waste at source is the need of the hour globally for managing waste in an environmentally sustainable and economically viable manner. The forum members learnt from the Indian experiences on how cities have managed to secure source separation of waste to augment the efficacy of the technologies deployed to earn maximum revenue and have been successfully diverted waste from reaching the landfill. The forum agreed that without separation of waste at source, technology alone cannot address the global scale of the waste management challenges and the only way to achieve source separation is a balanced combination of investing in communication campaign and enforcement of the policy provisions. In India, the Solid Waste Management Rules 2016 (https://cpcb.nic.in/rules-2/) mandates separation of waste at source to the local government to provide the legal instrument to the city governments to enforce it. The forum members unanimously agreed to act to get source separation included as stronger mandate in their policies and municipal bye-laws along with encouraging local governments to adopt an inclusive approach to focus on behaviour change to incentivize source separation.



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Redesign concessionaire agreement

The larger share of Indian cities, especially the cities with more than 100,000 population, have outsourced their waste management services, especially door-to-door collection and transportation, to private companies. In many cases, the terms of procurement have been traditionally a tipping feel model based contract where the concessionaire / contractor have been paid on the basis of the total quantity of waste in mixed form collected for landfilling or processing. The same holds true for cities in the global south, especially in Africa. Such practices have been found to be deterrent to promote source separation. The forum agreed that the terms of engagement for a concessionaire agreement should always be signed on the basis of processing of various waste streams that are must be collected as source separated and transported separately aligned with the principal of circular economy through sustainable procurement. The forum also agreed to implement concessionaire agreement focusing on maximizing source separation and processing of waste.



Investing on behaviour change communication

Limited separation of waste at source has been globally established to be a practice emerged out of heavy reliance on unsustainable technological solutions and dearth of investment to change behaviour of waste generators. The Indian experience from implementation of Clean India Mission established that systematic investment in changing behaviour of waste generators can bring long term benefit to secure source separation, home composting etc. and also makes the technologies far more efficient in terms of generating revenue. During GFCCE-3, the participants witnessed the outcome of investing in behaviour change while visiting the Indian city of Pune for an exposure visit. The national guideline for Clean India Mission (https://swachhbharatmission.gov.in/SBMCMS/writereaddata/Portal/Images/pdf/brochure/IECforODF_Brouchure_English.pdf) very strongly emphasizes on the need for investing in behaviour change communication. The forum states felt that circular economy practice in solid waste management cannot be achieved unless the citizens are made to realize their role and behaviour to waste through appropriate behaviour change communication strategy and roadmap.



Optimizing cost on waste collection and transportation

Globally, the cost of waste collection and transportation is more than two-third of the total operational expenditure. The world bank report "What A Waste" analyses that the high cost in collection and transportation is often a result of inefficient planning to collect waste at the neighbourhood level using smaller tipper trucks and the distance every vehicle is required to travel to reach the landfill outside the boundary of the city limit. This is further coupled with very meagre return from waste processing and treatment making the waste management operations economically unsustainable. The Indian City of Pune has completely replaced the small tipper trucks for door-todoor collection with tricycle pushcarts thereby reducing the cost of primary collection substantially. Further, the material recovery facility for dry waste recovery and composting and bio-methanation plant for wet waste reduces the waste to be taken to the landfill to a large extent resulting in reduction of the cost for secondary collection through bigger vehicles. Having experienced this themselves during the exposure visit to Pune city (https://www.pmc.gov.in/en/swm), the forum members felt that such efficient planning to minimize the cost of collection and transportation is worth replicating in the cities in the global south.



Prioritizing decentralized approach

Attempting to collect and treat the entire quantum of waste of the cities to a centralized location away from the city limits, known as the centralized system of waste management, have been a matter of traditional challenge. In most of the cases, owing to poor rate of source separation, the collected waste has ended up in the landfills posing serious health, environmental and economical challenge. The need of the hour is therefore to switch to treat the source separated waste nearest to the point of generation through local resources and easy to use technology, termed as decentralized approach to waste management. In this approach, cities can be divided into smaller fragments of human settlements which could be a cluster of municipal wards where dry and wet waste processing units are established with the design capacity of meeting the quantity generated within its catchment area. While this approach calls for source separation mandatory and non-negotiable, it substantially reduces the cost of transportation. During GFCCE-3, the forum states were informed about the Indian state of Odisha with 114 urban local bodies have completely switched to decentralized system (https://urban. odisha.gov.in/sites/default/files/2023-09/Decentralisedsolidwastemanagement.pdf) as a matter of state policy. The forum members opined that decentralized approach is the most relevant one even for majority of African cities.



Integration of informal sector

Integration of informal sector in waste value chain is one of the priority of Indian policy makers and practitioners. Cities in the global south, especially in Africa, the challenge of integrating the waste pickers is getting bigger with time. During GFCCE-3, the forum members states could see it for themselves how a co-operative of more than 4500 informal waste pickers have partnered with municipal government for door-step collection of source separated waste from more than 900,000 properties every day. Such a mechanism not only secured the livelihoods of the waste pickers but also proved to be financially sustainable model (https://swachcoop.com) that can be replicated in cities of the global south.



Manage Bulk Waste Generators

Sources like commercial establishment, market complex, hotels, schools, colleges, housing societies, high-rise buildings generate a lot of waste as single sources. According to the Indian policy, the sources that generates more than 100 Kgs of waste everyday including all waste streams are referred as the "Bulk Waste Generators (BWGs)". The law mandates them to manage their biodegradable waste through composting or biomethanation inside their premises and handover the other waste streams to agencies authorized by the city government (https://cpheeo.gov.in/upload/5abcb3c488029Bulk-Waste-Generator-Book.pdf). As a strategy to reduce the burden on the part of the city government, increase the treatment of organic waste, the legal mandate for the Bulk Waste Generators is critical for every city to consider for their policy space. During GFCCE-3, the forum members visited few BWGs and inspected how they are adhering to the legal mandate by managing their organic waste within their premises. The forum members agreed that the provision of BWGs is something that all the global south cities must consider going forward.



Using Municipal Bye-Law as a legal instrument to address segregation and home compostin

Over and above the basket of policies that are governing the solid waste management services to the citizens by the local governments, the Indian constitution was amended in 1992 to provide additional power and authority at the disposal of the local governments to adopt and enforce local laws terms as the "bye-law" to address local development priorities including enforcement / amendment of tax regimes according to the services offered by the local governments to the citizens within its jurisdiction (https://mohua.gov.in/upload/uploadfiles/files/1Draft%20Bye_laws.pdf). The bye-laws have played critical role in enforcement of various facets of solid waste management and make the citizens responsible for issues like source separation, anti-littering, payment of user charges for waste collection, penal provisions in the event of failing to comply certain laws etc. The forum members received thorough orientation of how municipal bye-laws is being used to institute circular economy practice in India and agreed that similar provisions in the cities in the global south can bring significant changes in the current system of solid waste governance.



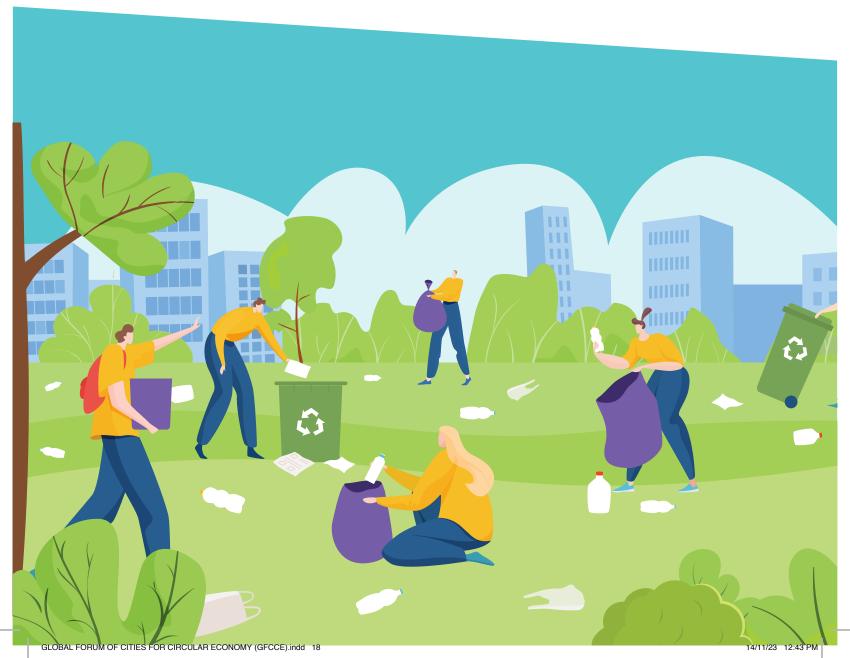
Ban dumping of bio-degradable and combustible waste

One of the better ways to incentivize source separation and disincentivize indiscriminate dumping of municipal solid waste in the dumpsites, there must be a legal ban on dumping of biodegradable waste and combustible waste in the dumpsites. Government of India is working on various policy options to enforce such bans including introducing landfill tax so that the local governments are paying for the quantity brought for landfilling. The forum members discussed this issue during the training cum exposure visit the agreed to discuss this as an agenda within their Government and explore how this can be implemented within their policy space.



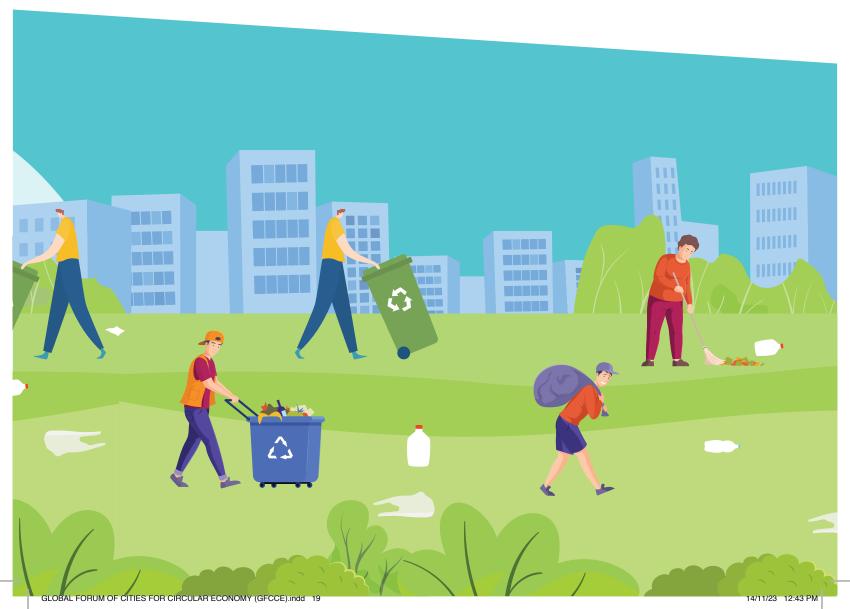
Implement the "polluter pays" principle for plastic waste management

Plastic pollution is a global challenge and the whole world is collectively looking for solutions to address the problem through policies, institutional arrangement, financing, implementation etc. India has a set of strong policies in place to deal with the plastic pollution issues like the Plastic Waste Management Rules 2016 (https://cpcb.nic.in/displaypdf.php?id=cGxhc3RpY3dhc3RlL1BXTV9HYXpldHRlLnBkZg==), Ban on Single Use Plastics (https://cpcb.nic.in/uploads/plasticwaste/Notification-12-08-2021. pdf), Extended Producer Responsibility (https://cpcb.nic.in/uploads/plasticwaste/Draft-Notification-EPR-6-10-2021.pdf) etc. During GFCCE-3, all the forum members went through the provisions of the Indian set of policies on plastic waste management. The forum members agreed that there is scope to harmonize the policies in the global south with the "polluter pays" principle where the Indian framework can be used as a reference.



Impose landfill tax

One of the most discussed and established approach to institute circular economy in solid waste management is "incentivizing" source separation and "disincentivizing" dumping or landfilling. Many countries in the global north have strong set of policies and implementation practices in place to disincentivize landfilling. Government of India is actively considering and working to bring out a comprehensive policy to introduce tax on landfilling of waste to disincentivize it in order to encourage maximum treatment and processing. The forum members agreed that landfill tax is a good way to reduce the quantum of waste being landfilled. Some African nations have such system in place but due to limited enforcement, it didn't get reflected in results to the desired extent. The forum agreed to explore all options within their government to introduce landfill tax for greater sustainability of the solid waste management system.



Closure of existing dumpsites

The heavy reliance on dumpsites as the ultimate destination for waste disposal, particularly in many Sub-Saharan African (SSA) countries and other developing economies, reflects a critical challenge rooted in the prevailing linear economy model. Under this model, end-of-life products and waste are routinely sent to landfills without undergoing scientific treatment or recycling, resulting in the wastage of valuable materials. There is lack of clear and standardized guidelines for scientific landfill design, site selection, and operational protocols. During GFCCE-3, all forum members discussed the provisions of Indian and African policies concerning landfill management and the remediation of open dumpsites. The consensus among forum members was that there is an opportunity for cities in the global south to address the remediation of existing dumpsites, with the Indian framework (https://cpcb.nic.in/uploads/LegacyWasteBiomining_guidelines_29.04.2019.pdf) serving as a valuable reference.



Developing tools for setting up a baseline to rank the cities in the global south capacity building and systems development

The forum members unanimously agreed that capacity of the officials at the local government and other administrative verticals dealing with Solid Waste Management issues must be addressed as a matter of strategy to improve the waste management practices aligned with the principle of circular economy. The GFCCE members expressed interest to formalize partnership agreement with CSE for continuous capacity building and systems development inputs around policy revisions, technical support on technologies for waste management, monitoring, grievance management etc. CSE assured the members to provide as much support as possible within its resource and institutional capacity to support the GFCCE member states for training and other technical issues for systems development.

The forum members also agreed that there is a strong need to device a system to assess the current status of the cities in the global south in terms of the solid waste management ecosystem and establish a ranking system for grading them while understanding the Indian system of Swachh Survekshan (Annual Cleanliness Survey) (http://devwebsite.sbmurban.org/storage/app/media/pdf/ss-toolkit/PPT-SS-2023-toolkit.pdf). Gathering Such data would be extremely useful for profiling of the cities for profiling them and plan capacity building calendar and module accordingly. CSE agreed to develop a toolkit for ranking of the cities in the global south before GFFCCE-4.





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