

KENYA, MOMBASA



POPULATION

1.2 million

2019

Supporting transition from collection of mixed wastes to segregation of waste at source

Mombasa generates 900 tons of solid waste daily, with 81 tons being plastic waste. The city is at the forefront of combating plastic pollution and was among the first to implement the Sustainable Waste Management Act 2021. This Act establishes a robust legal and institutional framework for sustainable waste management, emphasizing waste segregation at the source and the adoption of circular economy principles. Furthermore, Mombasa has developed essential policy and legislative frameworks to transition to a smart city by 2030, with a focus on the circular economy.

In August 2022, Mombasa advanced its commitment to reducing plastic pollution by joining WWF's Plastic Smart Cities Initiative, becoming the first African city to join this global effort. The city has set an initial goal to reduce plastic pollution by 30% by 2030, while also accelerating its transition towards a circular economy.

As part of the Plastic Smart Cities Initiative, Mombasa City has launched the Clean Oceans Project Identification and Preparation (COPIP) — Separation of Dry and Wet Waste Pilot Project in two sub-counties. This initiative promotes sustainable waste management and supports a pre-feasibility study. Led by the County Government through the Department of Environment and Solid Waste Management, and financed by the European Investment Bank (EIB) in collaboration with the Department of Environment and Governance, the project's main objective is to foster a cleaner environment and establish a more sustainable waste management system. The project aims to encourage recycling, boost the circular economy, and reduce the amount of waste sent to Mwakirunge dumpsite, a major disposal site in Mombasa. In partnership with WWF, the County Government has conducted awareness campaigns targeting households and waste managers. WWF has also provided essential resources, including bins, bin bags, and electric tuk-tuks, to support waste management efforts and reduce carbon emissions.



Source: frimufilms on freepik



IMPACTS TO ACHIEVE SDG 11.6.1

- The pilot project will implement a 3-bin waste collection system—categorizing waste into Recyclable, Compostable, and Hazardous—across 800 households.
- This initiative will contribute to increased collection rates, improve material recovery, reduce illegal dumping and improve livelihoods through waste collection and valorization.
- The project will facilitate the recovery and recycling of various waste components, significantly reducing the amount of waste sent to landfills.
- Likoni sub-county is characterized by informal settlements, while Mvita sub-county has a dense population and a central business district, both offered varied testing environments for the project. Significant improvements in waste management were observed in both areas. Likoni demonstrated potential reductions in illegal dumping through effective waste segregation, while Mvita experienced enhanced efficiency in waste collection within densely populated zones. During the first month, the project collected nearly 3,000 kg of waste, predominantly organic (67.7%), followed by recyclables (20.2%), with just a little over 10% ending up in landfills.



Transportation vehicle for segregated waste

Source: kenyanews.go.ke

INSTITUTIONAL SUSTAINABILITY

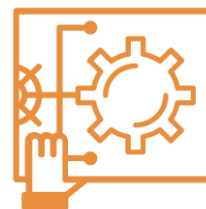


The pilot project demonstrated a strong commitment to institutional sustainability, being spearheaded by the County Government through the Department of Environment and Solid Waste Management, and financially supported by the European Investment Bank (EIB) in partnership with the Department of Environment and Governance. This collaborative approach underscores the importance of integrating various institutional resources and expertise to tackle environmental challenges effectively. Further cementing its dedication to sustainable practices, Mombasa joined WWF's Plastic Smart Cities Initiative, setting an ambitious goal to reduce plastic pollution by 30% by 2030, while simultaneously accelerating its shift towards a circular economy. This strategic move not only addresses immediate waste management issues but also establishes a long-term framework for sustainable urban development.

PLANNING & MONITORING



The pilot project, running from September 2023 to April 2024, emphasizes meticulous planning and monitoring. Responsible bodies are closely tracking progress, with initial results already collected in the first month. This diligent monitoring has yielded promising outcomes, prompting plans to expand source segregation efforts beyond the initial 800 households. Key lessons learned include the importance of stakeholder engagement, the socioeconomic diversity within Mombasa, and the logistical challenges posed by its island location for transporting recyclable materials. To address these challenges, the city, in collaboration with WWF, is developing strategies to ensure the project's sustainability and scalability.



APPROPRIATE TECHNOLOGY

- 3 bins for segregated collection of Recyclable, Compostable, and Hazardous waste
- 800 Households from Likoni and Mvita sub-counties
- Pilot project implementation between September 2023 – April 2024
- During the launch, youths and women in waste management groups were provided with equipment: protective gear (gloves, masks, and safety boots), 3-bins, bin liners, and electric tuk-tuk.
- A behavior change campaign was organized to educate citizens and workers about proper waste management and segregation techniques. This initiative aimed to foster a deeper understanding and commitment to sustainable practices among the community and those directly involved in waste handling.



Source: WWF Kenya

FINANCIAL SUSTAINABILITY



The financial sustainability of the project is a key focus, with Sh8.7 million invested in the pilot phase, supported by the European Investment Bank (EIB), benefiting 800 households. Given the successful outcomes, the County Government is committed to sustaining and scaling the project. Plans are underway to replicate the initiative on a larger scale, leveraging revenues from sale of recovered materials. Additionally, the project is expected to save significant funds by reducing the volume of waste sent to the disposal site. These combined efforts will ensure the long-term financial viability of the waste management program while contributing to the county's economic development.

STAKEHOLDER INVOLVEMENT / INCLUSION OF INFORMAL WASTE SECTOR



Stakeholder involvement and the inclusion of informal workers are critical components of the waste segregation initiative. By implementing segregation at the source, the county will enhance the quality of organic waste for composting and improve the recycling process for other materials. This will not only save money on transporting waste to the dumpsite but also redirect funds towards development projects and create new jobs for informal waste pickers who will be engaged in recycling activities. Community members played a vital role, participating in information and awareness-raising theater performances that highlighted the importance of waste segregation and the adverse effects of burning waste. Recognizing the efforts of other stakeholders conducting similar activities, the city plans to foster collaboration and coordination among all parties involved to ensure a unified and effective approach to sustainable waste management.

Awareness raising through theatre performance



Source: Plastic Smart Cities



SOURCES

- Plastic Smart Cities - <https://plasticsmartcities.org/mombasa/> <https://plasticsmartcities.org/mombasa-first-city-in-africa-to-join-wwfs-plastic-smart-cities-initiative/> <https://plasticsmartcities.org/segregation-waste-at-source-in-mombasa-kenya/>
- Clean Oceans project Identification and Preparation - <https://copip.eu/news/strengthening-the-collaboration-between-mombasa-county-government-and-wwf-kenya/> <https://copip.eu/publications/mombasa-solid-waste-and-stormwater-project-pilot-project-on-separate-waste-collection-at-the-source-2-bin-system/>
- WWF Kenya - <https://www.wwfkenya.org/?236731/Towards-zero-waste-separation-at-source-pilot-project-launched>
- Kenya News - <https://www.kenyanews.go.ke/mombasa-county-rolls-out-waste-segregation-project-to-reduce-pollution/>
- <https://www.youtube.com/watch?v=vzMH5j4I12Y>



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