



Project_Scoping
URBAN PATHWAYS
2020

KENYA

PROJECT

SCOPING

**Inter-counties consultation
for improved municipal solid
waste management in Nairobi
Metropolitan Area**



**Wuppertal
Institut**

UN HABITAT
FOR A BETTER URBAN FUTURE

UN
environment

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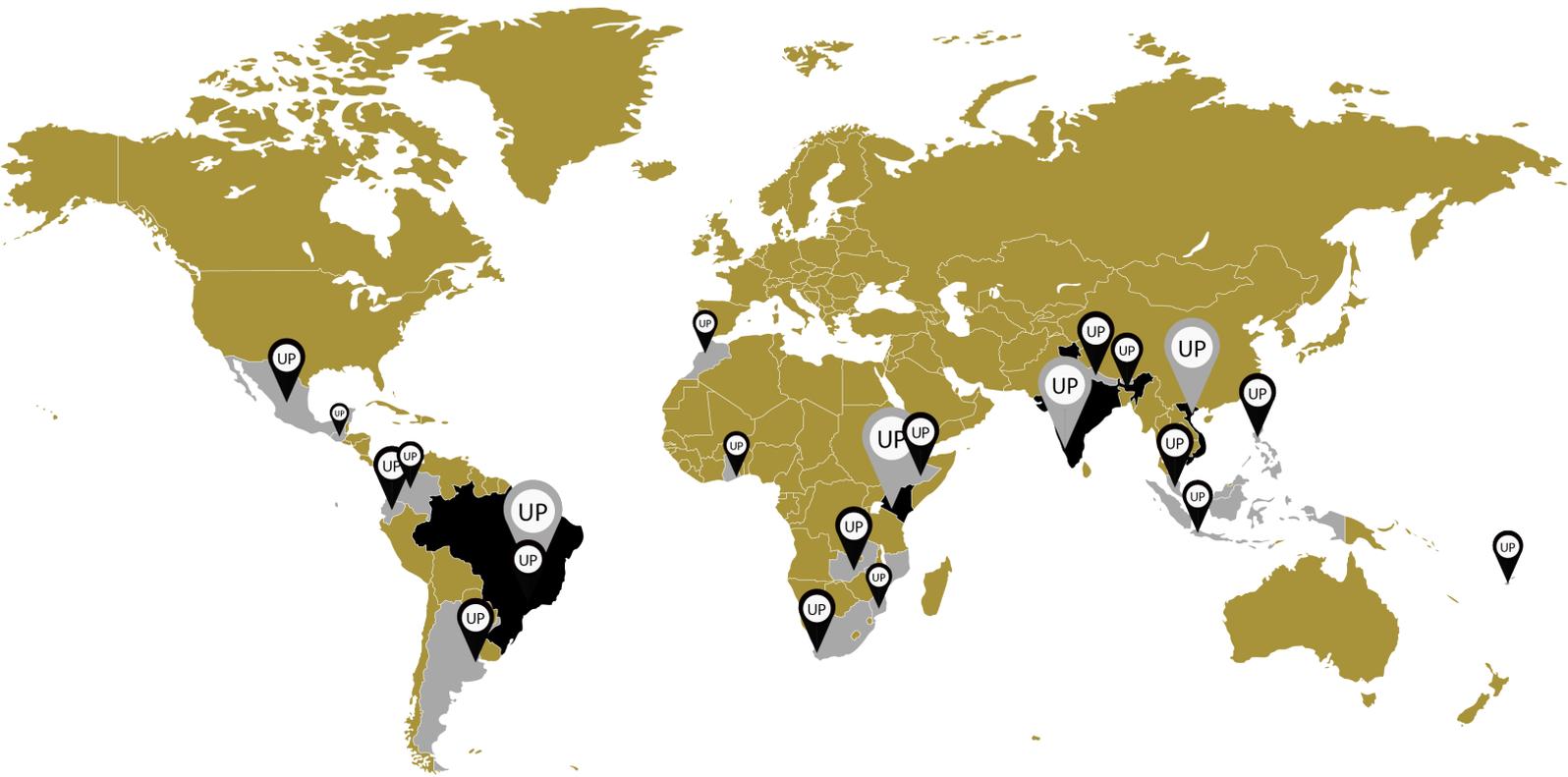
PATHWAYS

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URBAN PATHWAYS PILOT CITIES

COUNTRY OVERVIEW



OVERVIEW

Solid Waste Management in Africa has long been a neglected area. Only less than 5% of the total SWM-focused development finance between 2003 and 2012 was received by Sub-saharan Africa region. However, Africa's urbanization rate is 3.5%, the highest in the world. Due to the rapid urbanization in recent years, municipal solid waste management has become a big challenge for many cities, as lower income cities in Africa expected to double their municipal solid waste generation within the next 15-20 years.

Kenya is struggling in setting up sustainable waste management systems in its cities too. Nairobi, the capital of Kenya, faces greater challenges due to its rapid urbanization and large and unplanned flows of people. The city lacks a sound waste management system that coupled with fast population growth an unplanned urban development, is creating enormous environmental and health threats for Nairobi citizens.

The last Kenya Population and Housing Census 2019 results indicate that Nairobi has a resident population of 4.4 million people, though it has a day population over six million people (almost 2 million people come to the capital city for work and return to their settlements in the evening). In fact, Nairobi generates over 60% of the country's Gross Domestic Product.

Given the peculiarity of Nairobi city, addressing solid waste management issues in a holistic approach, also form a geographical perspective, it is essential step. Nairobi City County is boarding with, Kajiado, Kiambu and Machakos County. While the law states that waste generated in one county shall be disposed in the same county, in reality, because of logistic and costs issues, it does not always occur. Therefore, coordination among neighbouring counties (Nairobi, Kajiado, Kiambu and Machakos) is a necessary step to set up sustainable and legal practices for solid waste management.



Nairobi

Policy Environment



With a population of 4 million, Nairobi's municipal solid waste generation is estimated around 2,500 - 3,000 t/day and expected to increase to 4,000 t/day by 2030 with rapid urbanization and population growth to 6 million. In 2009, Japan International Cooperation Agency (JICA) reported a collection coverage of 33 %, while UN-Habitat reported that only 24 % of the total waste generated is valorised by all channels including informal sector. Waste collection in lower income areas is particularly left behind, causing a big public health concern. The existing dumpsite in Dandora has already been over capacity for 10 years and is causing serious environmental pollution including ground and surface water contamination, as well as air pollution.

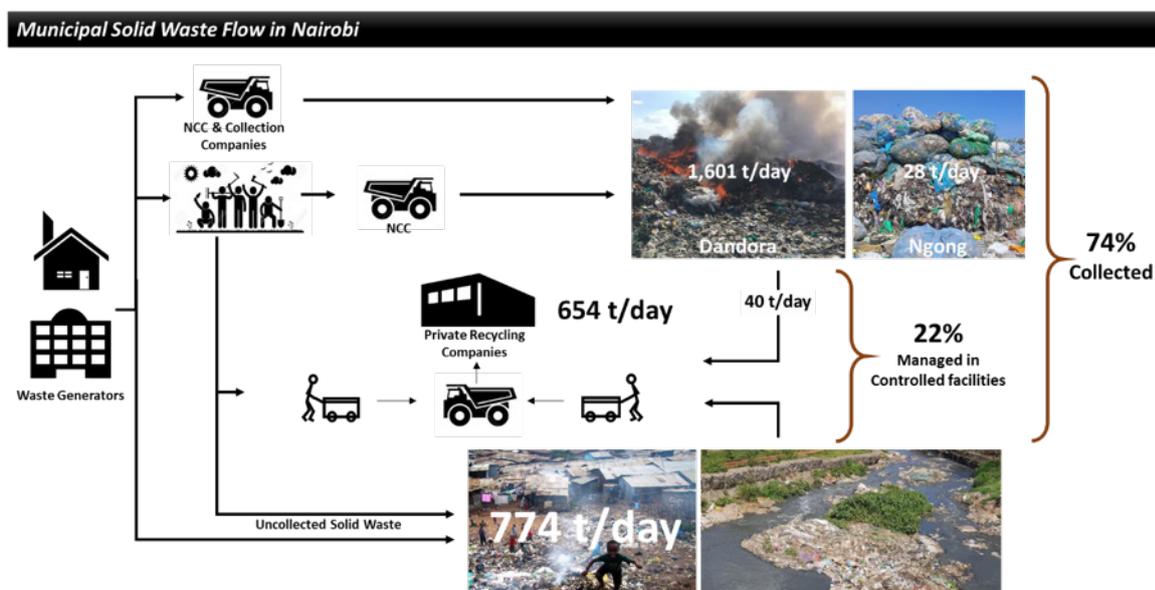


In 2019, UN-Habitat conducted a data collection exercise for Sustainable Development Goal (SDG) indicator 11.6.1 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal solid waste generated, by the city, in Nairobi City County (NCC), Kenya. This data collection exercise is conducted in a timely manner, 10 years later than the JICA's survey in 2009.

SDG 11.6.1 is an assessment and planning tool that allows to:

- understand the municipal solid waste flow in a city;
- gather data on total municipal solid waste generated by the city (including waste type), total municipal solid waste collected, and total municipal solid waste managed in controlled facilities, as well as municipal solid waste polluting the environment (uncollected, abandoned, not properly managed);
- identify gaps in the waste management system;
- plan interventions targeting the gaps.

The results of the SDG indicator 11.6.1. survey conducted in NCC show that the total municipal solid waste generated is almost 3,000 tonnes/day, out of which only 22 % are collected and managed in controlled facilities. The proportion of municipal solid waste collected is approximately 74 % (including waste that is not managed in controlled facilities). A closer look at the data shows that almost 800 tonnes/day of municipal solid waste in NCC remain uncollected and will eventually end up in the environment. Furthermore, private recycling companies in NCC are treating about 650 tonnes/day of municipal solid waste. Approximately 40 tonnes of recyclables are recovered by waste pickers daily from Dandora dumpsite, NCC's designated disposal site, supplying the recycling chain. The assessment of SDG 11.6.1 categorized Dandora Dumpsite as a dumpsite with limited control which making the site the source of high level of environmental pollution with presence of fire.

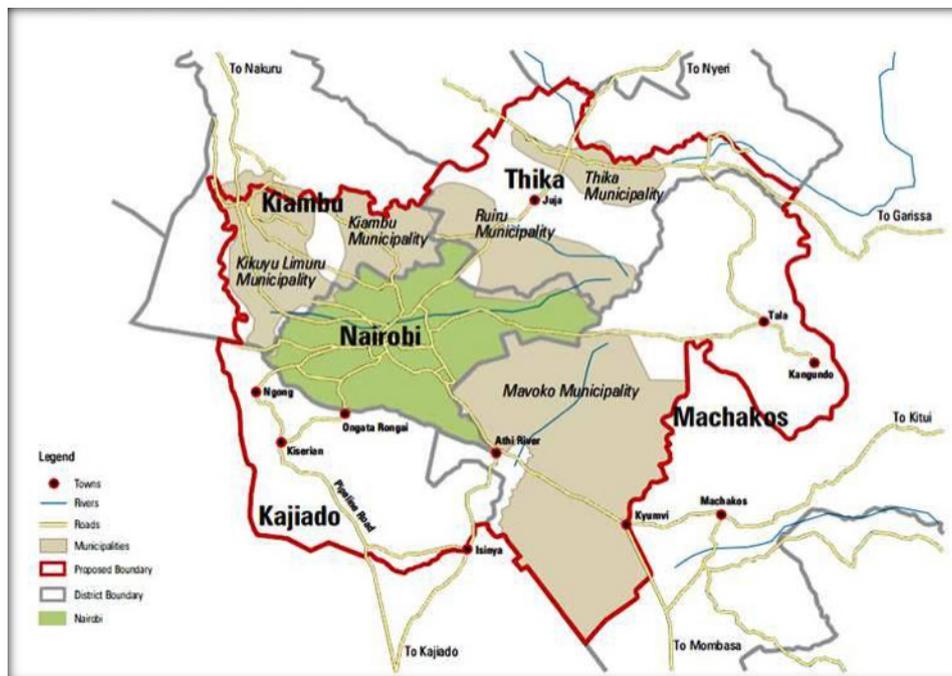


NCC has worked on the improvement of waste disposal supported by JICA. A feasibility study to open a new sanitary landfill site in Ruai was conducted in 2010. However, the project has been halted in the phase of Environmental Impact Assessment due to the selection of the new landfill site in proximity to Jomo Kenyatta International Airport. The airport raised an issue of bird strike and the project has been stopped for more than 5 years. Due to limited land availability in Nairobi and the NIMBY (Not In My Backyard) phenomenon, finding a new landfill site is extremely difficult.

In Kenya, the waste generated in one county has to be disposed of in the same county, unless there is an agreement between the counties. Nevertheless, as towns and cities in counties neighbouring NCC are rapidly expanding, there is waste flowing into other counties. For instance, municipal solid waste generated in NCC, but being physically closer to Kiambu or Kajiado County dumpsites than to Dandora, is illegally dumped there. This occurs because private collection companies prefer saving fuel costs and avoiding spending many hours in the heavy traffic jams in Nairobi. Therefore, collection companies bring the collected waste to the nearest dumpsite, even though the waste was not generated in that county.

Project concept

Given the fact that waste is already flowing from one county to another, although in an uncontrolled and unregulated manner, and a new waste treatment plant will be built in Kajiado County (recovering resources and energy from waste), this might be the right time for Nairobi City, Machakos, Kiambu and Kajiado Counties to tackle municipal solid waste management with a metropolitan approach. An agreement to share waste management facilities including landfill sites, transfer stations, resource and energy recovery facilities, as well as to regulate waste disposal among these counties is urgently needed. The picture below shows metropolitan approach taken in the transport sector, which includes cities of NCC neighbouring counties, such as Kiambu, Ruiru, Thika, Mavoko and Ngong.



Metropolitan approach taken in the transport sector in Nairobi

To take a metropolitan approach for municipal solid waste management, careful stakeholders' engagement and awareness raising for citizens are needed. UN-Habitat has been working with NCC, Kiambu and Kajiado County on waste disposal improvements and is willing to facilitate an inter-counties dialogue to improve municipal solid waste management in the Nairobi Metropolitan Area. This will be achieved through the establishment of a Municipal Solid Waste Management Metropolitan Plan.

The goal of the project is, therefore, to establish a Municipal Solid Waste Management Metropolitan Plan (MSWMMP) among Nairobi City, Kajiado, Kiambu and Machakos County Governments to improve municipal solid waste management in the Nairobi Metropolitan Area.

Beneficiaries of the project will be:

County Governments of Kajiado, Kiambu, Machakos and Nairobi City County: as an integrated approach will be used to improve municipal solid waste management in Nairobi Metropolitan Area, this will result in improved coordination and efficient use of resource (human and financial) for the counties. The counties will enhance the effectiveness of their waste management services to the population, while bringing resources efficiency.

- Civil society of selected counties and cities/Nairobi Metropolitan area: the establishment of MSWMMP will improve municipal solid waste management in the target area. Therefore, cities dwellers will benefit from improved waste services, cleaner environment and so improved health.
- Waste pickers and informal workers of the waste chain: as the project aims at inducing behavioural change on sustainable resources and municipal solid waste management among civil society of the target areas, this will result in increased recovery of recyclables for the waste pickers, enhancing their livelihoods
- Recycling companies

Local implementation support partners

- Nairobi City County
- Kajiado County
- Kiambu County
- Machakos County

Project plan for demonstration action

The project will establish a MSWMMP among Nairobi City, Kajiado, Kiambu and Machakos Counties to improve municipal solid waste management in the Nairobi Metropolitan Area, through the achievement of intermediate expected accomplishments and related expected outcomes. The following activities to reach each expected outcome are suggested:

Expected Accomplishment	Expected Outputs	Activities
1. Assessment and planning tool SDG 11.6.1 is implemented in selected urban areas of Nairobi Metropolitan Area	1.1 Public consultations are organized to select relevant urban areas for the implementation of SDG 11.6.1 tool	1.1.1 Identification of relevant stakeholders of waste management chain in Nairobi City, Kajiado, Kiambu and Machakos Counties 1.1.2 Organization of two (2) public consultations to choose the most relevant cities for the implementation of SDG 11.6.1 tool
	1.2 SDG 11.6.1 tool is implemented in selected urban areas	1.2.1 Training of Environmental officials of selected Counties/Cities on SDG 11.6.1 tool 1.2.2 Implementation of the SDG 11.6.1 tool in the selected urban areas in Nairobi Metropolitan Area 1.2.3 Analysis of waste related data collected through SDG 11.6.1 tool
	1.3 Collected data is integrated with the SDG 11.6.1 data of Nairobi City County	1.3.1 Update of waste flow of Nairobi Metropolitan Area with additional data obtained 1.3.2 Update of infrastructure gap assessment based on 1.3.1 1.3.2 Organization of consultative workshops to discuss the gaps and how to address them through a metropolitan approach

Expected Accomplishment	Expected Outputs	Activities
<p>2. Modalities to regulate Municipal Solid Waste Management Metropolitan Plan are defined</p>	<p>2.1 Stakeholders' consultations are organized to: reach a common vision of Municipal Solid Waste Management Metropolitan Plan define the boundaries of Nairobi Metropolitan Area define modalities of management of waste collection service providers establish financial mechanisms for common use of waste treatment facilities</p>	<p>2.1.1 Selection of relevant stakeholders from County governments and national government and agencies 2.1.2. Organization of six (6) consultative workshops to define: goals of the MSWMMP boundaries of Nairobi Metropolitan Area modalities of consolidated waste management service provision system for Nairobi Metropolitan Area establish financial mechanisms for financing waste management system in Nairobi Metropolitan Area</p>
	<p>2.2 Municipal Solid Waste Management Metropolitan Plan is drafted</p>	<p>2.2.1 Draft of MSWMMP 2.2.2 Organization of consultative workshop to discuss of the draft of MSWMMP 2.2.3 Revision of the draft of MSWMMP according to comments/feedback from consultative workshop</p>
<p>3. Behavioural change on sustainable resources and municipal solid waste management among civil society of target counties</p>	<p>3.1 Sensitization events are organized in the target counties</p>	<p>3.1.1 Organization of public event to sensitize citizens on issues of waste management and how they can be part of the solution 3.1.2 Organization of radio programs and neighbourhood competition "cleaner neighbourhood" 3.1.3 Development, printing and distribution of awareness material (posters, calendars, comics, etc.)</p>
	<p>3.2 Advocacy activities are implemented in schools</p>	<p>3.2.1 Organization of initiatives in schools, including schools/classes competition "cleaner school/class" 3.2.2 Organization of field visits to dumpsite, waste treatment facilities, recycling companies</p>

The project can be implemented over a period of 18 months. The total budget for the project is around EUR 300.000.

Activity	Amount
Human resources	40,000 Euro
Public consultations, stakeholders workshop	100,000 Euro
Implementation of SDG 11.6.1 in Kajiado, Machakos and Kiambu counties	60,000 Euro
Sensitization events	30,000 Euro
Advocacy activities in schools	15,000 Euro
Administration/project support costs (13%)	31,850 Euro
	276,850 Euro

Project Financing and implementation

The proposed project concept on ‘Municipal Solid Waste Management Metropolitan Plan’ was developed under Urban Pathways project, funded by the International Climate Initiative. The concept was submitted for funding in fall 2019.



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