Concept Note

Improving Municipal Solid Waste Management is critical for sustainable urban development

OCTOBER 1 World Habitat Day MUNICIPAL SOLID WASTE MANAGEMENT

World Habitat Day, which is celebrated on the first Monday of October, brings attention to UN-Habitat's mandate to promote sustainable urban development policies that ensure adequate shelter for all.

This year's theme is Managing Municipal Solid Waste. In 2010 it was estimated that every day 0.8 kilograms of waste is produced for every person in the world. And the amount of total waste generated is expected to triple to 5.9 billion tons a year by 2025, due to increased consumption and ineffective management strategies.

Cities often spend a large proportion of their budget on Municipal Solid Waste Management which should be at the top of the agenda for cities, their inhabitants and governments at national and local levels. Cities should aim to become 'Waste-Wise Cities'.

The Sustainable Development Goals (SDGs), the Paris Agreement and the New Urban Agenda, address the key issue of solid waste management. The target of SDG11.6 is to reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management with indicator 11.6.1 being the proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated by cities. SDG 12 on "Sustainable Production and Consumption" targets among other things, environmentally sound management of all waste through prevention, reduction, recycling, reuse and the reduction of food waste.

The New Urban Agenda makes a commitment to "the environmentally sound management and minimization of all waste". Under the Paris Agreement, Nationally Determined Commitments (NDCs) of many countries, include action on waste management to reduce greenhouse gas emissions. Translating the national government commitments to practical and sustainable actions at the local level, needs the support of a network of actors with local authorities taking the lead to maximise partnership opportunities.

Expected yearly waste generation by 2025

5.9 billion tons

This is due to increased consumption and ineffective management strategies

11 SUSTAINABLE CITIES AND COMMUNITIES

IMPLEMENTING THE NEW URBAN AGENDA

UN HABITAT FOR A BETTER URBAN FUTURE

The Problem

Developing countries often have inadequate waste management systems due to lack of financing, poor awareness, poor governance systems and sometimes inappropriate applications of technological solutions. Poor collection and disposal of municipal solid waste causes local flooding and water pollution and accumulated waste provides a breeding ground for rodents and insects which spread disease. Marine litter and erosion of coastal dumpsites contribute to marine pollution.

Uncontrolled waste-burning adds to air pollution while waste transportation vehicles and landfills contribute to greenhouse gas emissions.

High-income countries generate more waste per-capita than low- income countries. In rapidly-urbanizing areas, suitable sites for sanitary landfills is becoming scarce due to the increasing price of land and objections from the community.

Wider use of electronic goods and their built-in obsolescence leads to "waste trafficking" with e-waste produced in developed countries ending up in dump-sites in developing countries with lower environmental standards and labour costs.

Poorly managed landfills pose many health hazards particularly for informal waste pickers. These include air pollution, injuries and landfill collapses. In 2017 alone more than 130 people, most of them women, died in landfill collapses in Africa. Children are also frequently employed in this dangerous occupation and are deprived of educational opportunities.

The trans-boundary movement of municipal solid is an inexpensive way to circumvent local environmental laws related to disposal but must be discouraged. Although appropriate recycling industries may not be available locally, every effort should be made to establish such facilities.

Municipalities often spend up to 70% of their budget on waste management, including on street sweeping etc. Aside from high investment costs for equipment, a sizeable number of staff are also required. The quality of a city's waste management system is often used as a guide to the overall effectiveness of municipal management. However, government investment in solid waste management is low compared to other sectors such as water and sanitation. The main difficulty lies in providing an equitable charging system. In addition, solid waste management is a low priority for development finance institutions. In 2012, only 0.32% of global development finance went to solid waste management while water and sanitation received 31%. Africa, compared to the Latin America, Caribbean and Asia regions received the least investment.

0.32%

Global development finance reserved for solid waste management in 2012

31%

Global development finance reserved for water and sanitation in 2012

Towards Solutions

Trends in consumption and production, manufacturing product cycles, public attitudes, municipal governance systems, capacity of city managers and innovative financing for solutions are all part of the solution to solid waste management. In addition, transparent and rules-based engagement of all stake-holders including waste producers, the waste recycling industry and waste workers is key. Integrating the informal waste recycling sector in the organized economy, with adequate health and safety provisions for workers can change the current informal and dangerous jobs of waste collectors. Developing a market for innovative and attractive products made from waste material can help to integrate the informal waste sector in the economy.

Greenhouse gas emissions from solid waste accounts for about 3% of the global total (IPCC 2010) but the potential contribution of better waste and resource management to climate change mitigation is much higher.

Recognising that municipal waste management needs and approaches varies from city to city, UN-Habitat recommends that solutions are built on respective cities' assets and strengths either in the formal waste management system or in the informal or micro enterprise sectors. Developing a network to share experiences and good practices will allow cities to learn from each other.

UN-Habitat thus promotes an "Integrated Solid Waste Management Framework" which envisages: good waste collection services; environmental protection through proper treatment, disposal and resource management; cost-effective, affordable, and inclusive solutions which also recognize the role of informal and micro-enterprise sectors in achieving high rates of recycling.

Cities need to explore how increasing land values can be channeled towards better waste management. For example, cities could examine the real cost of providing waste collection services to high-income, low-density neighborhoods, taking into account the quantity of landfill space required to accommodate such waste and charge residents according to the volume of waste. In some cities, reclamation of land through treatment of landfill sites and the use of disused quarries as landfills have been tried and can be studied for potential replication.

Education and awareness activities have a key role to play and local governments can engage with civil society and advocacy groups to raise public awareness with schools as a possible focus. UN-Habitat's field experience has shown the efficacy of child to parent teaching of better hygiene practices and this could be replicated with municipal waste. Incentives to change public behavior such as paying for the return of used plastic bottles can be effective. Manufacturers need to improve packaging to reduce waste or by making packaging waste more easily recyclable.

The is no doubt that sharing of knowledge and experience between countries and cities has added valued. Some examples are described below:

The African Clean Cities Platform and the Urban Pathways Project

The African Clean Cities Platform (ACCP) is a platform to share knowledge and promote the Sustainable Development Goals (SDGs) on waste management in Africa with the aim of African countries realizing clean and healthy cities. It was established in April 2017 with the Ministry of the Environment of Japan, the Japan International Cooperation Agency (JICA), the United Nations Environment Programme (UN-Environment), the United Nations Human Settlements Programme (UN-Habitat) and City of Yokohama, and currently 60 cities in 31 countries in Africa are participating.

At the first annual meeting of the ACCP held in Morocco in June 2018, 32 countries and 48 cities presented their municipal waste management issues and discussed solution strategies and potential projects. The African Development Bank and the Japan Bank for International Cooperation participated.

UN-Habitat supported by the German Government's International Climate Initiative is implementing the "Urban Pathways: Low Carbon Basic Services in the context of the New Urban Agenda". This project will assist countries in making progress against the SDGs and the Paris agreement. Capacity building of city managers and city-city exchange of good practices are expected to lead to the development of bankable projects including on Solid Waste Management and resource recovery.

Call to action – become a 'Waste-Wise City'.

- Urbanisation and economic growth are creating a potential "time-bomb" of poor of solid waste management. If not addressed, aside from huge costs, the significant impact on human health and the environment will be felt by nations at all levels of development;
- All cities regardless of their size and financial capacity can improve upon the current state of solid waste management to become 'Waste-Wise Cities'. Reducing operational cost while at the same time minimizing negative impacts on health and environment;
- Cities and national government should empower and work with civil society and NGOs;
- Cities should learn from examples from other cities and should carefully examine technological solutions implemented elsewhere;
- Cities should make long-term strategic plans for urbanisation which fully consider solid waste generation, treatment (including recycling) and identify adequate space for future sanitary land-fill sites;
- Cities and national governments should design financial and other incentives that will promote a transition to a more circular economy, built around resource use and efficient recycling and reuse as outlined in SDG12.5 on reducing waste generation through prevention, reduction, recycling and reuse;
- Moving forward, UN-Habitat will continue its dialogue on solid waste management beyond World Habitat Day with cities, industries and the private sector. It will explore how to work with other UN agencies in creating a joint platform on urban waste management to better inform Governments through policy dialogue and focused technical assistance through specific projects. Cities that improve their solid waste management and reduce their expenditure on waste management should be publicly recognized as "Waste-Wise Cities". UN-Habitat looks forward to hearing about innovative practices to achieve "Waste-Wise Cities"