



## **WASTE-WISE CITIES**

**A CALL FOR ACTION TO ADDRESS THE MUNICIPAL SOLID WASTE  
CHALLENGE**

**ADVOCACY TOOLKIT AND GUIDE**

**RETHINK, ACT, ENGAGE**

## 1. INTRODUCTION

The United Nations has designated the **first Monday of October of every year as World Habitat Day**.

The focus of this year's World Habitat Day celebrations is taking action to address the municipal solid waste management challenge which is to be celebrated on 1 October 2018. This year's theme is *Municipal Solid Waste Management* with a slogan *Waste wise cities*.

The purpose of World Habitat Day is to reflect on the state of our cities and other human settlements and on how to achieve the Sustainable Development Goals and the New Urban Agenda. It is a call for action to the world to address the solid waste management challenges facing each city and town.

World Habitat Day was established in 1985 by the United Nations General Assembly through Resolution 40/202 and was first celebrated in 1986.

Each year, World Habitat Day takes on a new theme drawing attention to UN-Habitat's mandate to promote sustainable development policies that ensure adequate shelter for all as well as working towards achieving the Sustainable Development Goals and the New Urban Agenda.

On 1 October 2018, and in the before and after this day, combined effort will be made to

- raise awareness to the public that Municipal solid waste is a global challenge that needs all to participate and address.
- facilitate policy dialogue and form partnerships
- promote innovative solutions to municipal solid waste management
- mobilize resources to address the municipal solid waste challenges

The international campaign includes a series of events, communication tools and channels. The main event will be held in Nairobi, Kenya on 1 October 2018.

## 2. AIM OF THE ADVOCACY TOOLKIT AND GUIDE

- **Rethink**

To reconsider the entire approach to municipal waste, including decisions on consumption and production (reduce), reuse, recycling or upcycling is essential to solve the Municipal Solid Waste problem.

To communicate the purpose of WHD 2018

- **Act**

To encourage advocacy and stakeholder action towards improving solid waste management within our homes, work places, towns, cities and communities

- **Engage**

To create platforms where various stakeholders share about WHD 2018 activities, events and activities as well as encourage continuous action and sharing of success stories on solid waste management.

### **3. TO WHOM IS THE WHD 2018 CAMPAIGN DIRECTED?**

World Habitat Day 2018 is a global campaign to promote worldwide efforts to raise awareness and act in response to the challenge of municipal solid waste management in the context of rapid urbanization.

To turn this WHD 2018 challenge into successful activity we need inspired and coordinated advocacy from national and local governments and stakeholder groups all over the world. The best way to do this is to work together and communicate consistently. To facilitate this, UN-Habitat is providing communication tools and ideas to help you as interested partners - whether you are an organization, a country representative, a community, a national or local government, multilateral or donor agency, institution or an individual - to rethink, act and engage. We would also like to learn about your experience.

### **4. WHD 2018 SLOGAN**

**World Habitat Day 2018 slogan is “waste wise cities”**

**Call to action – become a ‘Waste-Wise City’.**

- Urbanization, economic growth and displaced persons, are creating a potential “time-bomb” with respect to the resulting negative impacts 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 urbanization 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”.

## 5. KEY MESSAGES

Solid Waste Management is an issue that affects everyone. The amount of individual waste grows daily, accounting for a large portion of the local government budget and affecting public health. Poor solid waste collection and disposal results in uncontrolled dump sites and waste burning. It also leads to polluted air and water. A change in public attitudes to minimize waste and stop littering, the regularization of informal waste pickers, increased recycling and reusing, sufficient funding and solid waste planning including adequate landfill sites, can help cities to improve the current state of solid waste management and save money to become ‘Waste-Wise Cities’.

### Six key messages

- Make cities and human settlements inclusive, safe, resilient and sustainable. – SDG 11
- Reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination SDG 3
- Strengthen partnerships that focus on improving municipal solid waste management in our cities SDG 17
- Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. SDG 13
- Responsible consumption and production patterns SDG 12
- Improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials SDG 6

### Message to Governments

- It is the responsibility of governments to make and implement policies. The instruments to implement policies include; (I) regulation and enforcement, (II) social mobilization e.g. awareness raising and (iii) economic incentives e.g. tax holidays for 5 to 10 years for all formal waste treatment facilities, less importation duties on relevant waste management equipment, no VAT or sales tax on the sales of compost, recycled products, etc.
- Institutional arrangements in government should include clear organizational structures and clear assignments of roles and responsibilities of the various ministries. It is however crucial to separate between a regulator and an operator otherwise transparency, accountability and enforcement could become very challenging.
- Local authorities need strengthened competences to negotiate, interact with private sector, donor agencies, or even business people. To develop local government staff capacities and competencies, governmental institutions should collaborate with local universities, NGOs or consultants. In addition, governments should strengthen formal education on waste management topics as this is key to obtaining qualified staff. Another option is also to connect local government officers among each other to facilitate an exchange of experiences for collective learning. Cities should also learn from examples from other Cities but they should carefully examine technological solutions implemented in other countries before adapting them in their own

- Knowing the total costs of providing municipal solid waste services is very important otherwise developing effective improvement measures becomes difficult. It is important to note that operation and maintenance costs are often very high with collection and transportation cost being the highest. Additionally, cities should make long-term strategic plan of urbanization and identify for example future sanitary land-fill sites
- An overall assessment of the status of solid waste management, challenges, opportunities, and areas for intervention, are very important in Long term planning of SWM
- The most common sources of funds that exist to cover SWM investment costs come from national government, local governments, local and international financing institutions, donors and the private sector. Cities and national governments should design financial and other incentives that will promote a transition to a more circular as opposed to a linear economy.
- Public institutions should prioritize private sector involvement through public private partnership (PPP). This is because; (i) the private sector is efficient and flexible and may also allow to expand coverage to areas not yet serviced (ii) private sector has easier access to capital and expertise and (iii) involving the private sector would free SW from political interference
- Integrating the informal sector, implementing different measures to improve the working conditions of the informal sector, for example organization in cooperatives and introduction of waste sorting facilities is key to improving SWM in cities.
- The involvement of small and medium enterprises is also crucial. Often, collection services are provided by the local government, but only on the main roads especially in the informal settlements. However, collection by motorized tricycle is provided to the households through these small enterprises. It is the responsibility of the local government to ensure that there are transfer stations available for these micro enterprises, which are operated by the local government. This should also include sorting and storage sheds for the recyclables.

The residents, the public are the beneficiaries of the service provided. Involving them, especially in monitoring, and giving feedback on service quality is essential. It is important to set fair and effective user charges and how to enforce payment.

### **Message to the private sector**

- The Private Sector is essential for the setup of an Integrated Solid Waste Management (ISWM) System and should work within the legal frame and in line with the National strategy for SWM
- Private sector should be open for collaboration with public and other private institutions by:
  - Entering into contracts paid by the local government to perform collection, processing, disposal or cleaning services
  - Entering into contracts with individuals or businesses for collection services
  - Functioning as a purchaser of recovered materials from the local government or the collector
- Private sector has access to finances for new investments and therefore come in handy in countries where local authorities are unable to fulfil their service mandates for SWM

- Private sector has access to technology and expertise and therefore should spearhead the setting up and operation of recycling and composting technologies/businesses. The government will grant licenses and allows different private sectors to compete for these service provision.
- The success of a private sector in providing SWM services strongly depends on the political will for a change, the skills of the public authority and mutual trust between all partners.

### **Message to the academia**

- Every school should introduce waste management in the school's curriculum and decide on its motivation for introducing Solid Waste Management (SWM). The most basic motivations could include; (i) to have clean surroundings i.e, 'no littering', (ii) protecting human health, (iii) turning waste to resources by promoting 4Rs, Rethink, Reduce, Reuse and Recycle, (iv) generate income from raw materials and recycled products, (v) to educate students on the rationale, theories, and practice of Solid Waste Management
- Introduce waste sorting and recycling initiatives in schools. The best way to handle segregated waste in schools is to try to track down recycling opportunities e.g. connecting with recyclers for inorganic waste and introducing composting organic waste.
  - In schools and offices paper is usually the predominant waste stream and these can be sold to paper recycling companies.
  - Plastics and glass are in small quantities and therefore can be collected and stored for a period then find a buyer or take to recycling companies
  - Food scraps can go to animals feed (pigs, goats, sheep, etc) while soiled napkins and paper wrappers can be composted. The composting can be done in pits, pots, cans, drums. Leaves can just be piled in strategic places and moistened for faster decomposition.
- The key stakeholders to of the Solid Waste Management in schools include;
  - School administration, students, gardeners, cleaners, cooks and drivers. The school administration should provide orientation on the SWM guidelines to all the stakeholders and that they are expected to follow them
  - Waste recyclers should be consulted to determine what wastes have commercial value and which therefore they will collect and bring to factories. Additionally, if a school doesn't have a garden, compost buyers should also be consulted.
  - Parents should be oriented because their cooperation is needed especially if their children are in the lower grades. For example, if a school bans single use food container, the parents should understand this.
- Trash bins for visitors' areas should also allow for segregation. This is a way to help educate the public.
- Each school must decide on the optimum system where the best results are obtained within its financial capabilities.
- To motivate the school community to adhere to the guidelines of SWM, actual field exposure to the ugly (uncontrolled dumpsites) and the beautiful (where SWM is practiced properly) is recommended. Showing videos/pictures of tragedies cause by improper

SWM, waste litter on streets, oceans choked with plastics is also crucial. Additionally, class projects using recycled materials can be effective in increasing student awareness who will in turn pass the information to their parents.

### **Message to NGOs and CBOs**

- Because they work at community level, NGOs and CBOs can motivate residents to dispose waste properly and keep their environment clean through regular activities e.g awareness raising campaigns, visiting schools, slums and residential areas
- NGOs and CBOs can encourage source separation and enhanced door-to-door collection especially in villages and informal settlements
- NGOs and CBOs can identify opportunities for utilizing wastes as raw materials, composting to reduce the amount of organic disposed and generated employment opportunities.
- NGOs and CBOs can easily engage with the local authority and bring their full attention to SWM sector

### **Message to financial institutions and Donors**

- Urbanization and economic growth have created the “time-bomb” of solid waste management- if not addressed, this will worsen human health and environmental prospects of the world
- Local authorities in developing countries do not have technical and financial capacity to properly manage their Solid Waste which leads to tragedies such as fire outbreaks and collapse of dumpsites which has resulted to loss of human life
- Increased investment in solid waste management is urgently needed to improve the current situation

## 6. KEY FACTS AND INFORMATION

Key facts and figures
Every second, the urban population grows by 2 people
5 million city residents are joining the urban population in the developing world each month.
95% of the urban population growth in the next decades will take place in the developing world
In Africa and Asia the urban population will double between 2000 and 2030
High-income countries generate more waste per-capita than low-income countries.
3.9 billion urban residents generate 1.2 kg of municipal solid waste (MSW) per person per day
3.5 million tonnes of solid waste generated globally per day in 2013. 6 million of solid waste expected to be generated globally per day in 2025
2 billion people globally do not have access to regular waste collection
In 2017 more than 130 people, most being women, died in landfill collapses in Africa
Public behavior is a determinant of the quality of waste management in cities
Public education and awareness activities have a key role to play in improving SWM
Africa gets the least investment on waste management unlike Latin America and Asia
Green House Gas (GHG) emissions from solid waste, accounts for about 3% of global GHG emissions.
According to UN-Habitat, only between 25 and 55 per cent of all waste generated in large cities is collected by municipal authorities
The UNDP estimates that more than 5 million people die each year from diseases related to inadequate waste disposal systems



# DUMPSITES:

## A Global Health & Environmental Emergency



The 50 biggest dumpsites directly affect the daily lives of

**64 million** people, a population the size of France.



Big criminal business: the annual turnover of illegal waste dumps amounts to

**10–12** billion USD.



Climate change: without action, dumpsites will account for

**10%** of GHG (Greenhouse Gas) emissions by 2025.



Source: International Solid Waste Association

### Trends in Municipal Solid Waste

Over the last few decades, the generation, recycling, composting, and disposal of Municipal Solid Waste Management have changed substantially. While solid waste generation has increased from 3.66 to 4.43 pounds per person per day between 1980 and 2010, the recycling rate has also increased—from less than 10 percent of Municipal Solid Waste Management generated in 1980 to 34 percent in 2010. Disposal of waste to a landfill has decreased from 89 percent of the amount generated in 1980 to about 54 percent of Municipal Solid Waste Management in 2010.

Cities worldwide generated more than 1.3 billion tons of solid waste in 2010. As drivers of economic activity and recipients of millions of rural migrants every year, cities expect to see this number to grow to 2.2 billion tons annually by 2025—the equivalent weight of the Great Pyramid of Giza, in trash, every single day.

There is an overall correlation between the generation of MSW, wealth (Gross Domestic Product, GDP per capita) and urbanization<sup>1</sup>. Future projections estimate that the world's waste production could reach up to 27 billion tons by 2050, a third of which may be generated in Asia, with a significant percentage of that being produced in large economies such as China and India as projected by the World Bank.<sup>2</sup>

### Challenges Ahead

Newer challenges include the increasing volumes of e-waste which can have disproportionately large volumes. 40 million metric tons of electronic waste are produced each year globally. Only 13% of this electronic waste gets recycled. Most of it is burned and dismantled informally in developing countries with adverse effects on health and the environment.<sup>3</sup> Increasing use of electronic goods and their built-in obsolescence is a cause of “waste trafficking” where significant quantities of e-waste produced in developed countries end up in dump-sites in developing countries where lower environmental standards and low labour costs can lead to hazards in further waste processing and resource recovery. Volatility in global trade trends can also be an issue as waste recycled in one country is shipped to another depending upon current and fluctuating market conditions making planning difficult. Poor solid waste management also affects tourism and therefore local economies as tourists avoid return trips to littered beaches and other tourist destinations.

While municipalities spend a major proportion of their budget on solid waste management operations, investment in solid waste management is low compared to other sectors. Managing municipal solid waste (MSW) is a critical and basic urban service, MSW is seriously underfunded in most developing country cities. Cities in low income countries spend about US\$1.5 billion per annum on MSW – typically the largest expenditure category on municipal budgets. With an existing global annual shortfall of at least US\$40 billion<sup>4</sup>.

### Municipal solid waste Opportunities

Addressing the waste problems has many benefits- both global and local. At the local level are the benefits of a cleaner and less polluted city with tangible health benefits for people. Integrating the informal waste recycling sector in the organized economy, with adequate health and safety provisions for workers and a transparent and rule-based engagement of all actors, including traders in the recycling market has the potential to make the current informal and dangerous jobs of waste collectors more decent. There are many examples where innovative and attractive products are made from waste materials. Developing a market for these can help to integrate the informal waste sector in the economy. Potentially, such integration can contribute to increasing municipal revenues, setting in place a virtuous cycle that can also improve waste management.

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<sup>1</sup> Veolia Environmental Services (2006). From Waste to Resource. An Abstract of “2006 World Waste Survey.” <http://veoliaes.com/resource.php?id=566> (last accessed 15 July 2010)

<sup>2</sup> World Bank (2005). Waste Management in China: Issues and Recommendations, May 2005. [www.go.worldbank.org/2H0VMO7ZG0](http://www.go.worldbank.org/2H0VMO7ZG0)

<sup>3</sup> Nokia, Population Reference Bureau/ILO

<sup>4</sup> The World bank, Results-based Financing for Municipal Solid Waste

Green House Gas (GHG) emissions from solid waste, accounts for about 3% of global GHG emissions. However, the “*Global Outlook on Waste*” points out that the potential contribution of better waste and resource management to climate change mitigation exceeds that by far. For example, Germany attributed 24% of its total savings in GHG emissions between 1990 and 2006 to solid waste management, even though by 1990 West German standards of landfill gas control were already high<sup>5</sup>.

While general observations can be made about solid waste management problems and solutions, the UN-Habitat Solid waste in the world cities report of 2010<sup>6</sup> emphasized the unique nature of each city. The report cautioned against trying to replicate examples from high-income countries and recommended that cities develop solutions that specifically reflect their unique context. The report also showed that even cities in developing countries such as Tanzania and Nepal can overcome financial constraints and greatly improve solid waste management - the key is building on each city’s assets and unique strengths and strong stakeholder participation.

Recognizing that urbanization itself is a source of value, cities need to explore how increasing land values can be channeled towards better waste management. This requires better integration between land markets and solid waste management operations. For example, cities could examine the real cost in providing waste collection services to high-income, low-density neighborhoods, considering the quantity of landfill space required to accommodate such waste and based on the polluter- pays principle to charge sections of the population accordingly.

Considering public behavior as an important determinant of the quality of solid waste management in cities, public education and awareness activities have a key role to play in improving solid waste management. Most large cities have civil society and advocacy groups that work on these issues. Local governments can seek to engage with such groups and empower them to raise public awareness. Schools can be a focus of such campaigns. UN-Habitat’s field experience has demonstrated the efficacy of child to parent learning of better hygiene practices. This can be replicated with regards to municipal waste. Incentives to change public behavior, for example, returning of used plastic bottles in exchange of small amounts of cash may also be effective.

The manufacturing industry also needs to play a key role by looking at the total life-cycle of their products and by improving packaging to reduce waste or by making packaging waste more easily recyclable.

Despite the variability of city contexts, a lot of information is now available from numerous cities on what has worked and what has not. Developing a network of such cities for sharing experiences and good practices will allow cities to learn from each other.

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<sup>5</sup> Global Waste Management Outlook UNEP ISWA 2015

<sup>6</sup> Solid waste in the world cities: water and sanitation in world’s cities