

Newsletter #16

December 2022 - Plastic Waste



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Plastic waste: Challenges and opportunities

Shoes, toothbrushes, bowls, phones, tires, toilet seats, wires, toys and many other items used in our everyday life are made of plastic; the material has become indispensable. Plastics are not only resistant to corrosion, poor conductors of heat and electricity, easily molded into many shapes, but also cheap and durable which explains their widespread use in many sectors. Between 2011 and 2015, the consumption of plastic materials (PMs) has risen from about 280 million tons to around 320 million tons, respectively. The massive consumption of a wide range of plastic products has generated a huge amount of plastic waste and its management has been a challenge to many countries. The adequate treatment of plastic waste is

very critical due to their persistence in the environment (they remain for about 1500 years) and to it easily being transported in water bodies, posing a danger to aquatic life. In many countries, plastic waste is commonly landfilled, or even worse, openly dumped with frequent open burning. However, open burning of plastic waste releases toxic emissions, which are hazardous to human life, as well as greenhouse gases. Moreover, in countries with poor solid waste management systems plastic waste, especially single use plastic bags, are often clogging sewers and can contribute to urban flooding. Therefore, enabling recycling of plastic waste is the most important action to reduce the environmental impacts of plastic pollution. By transforming

plastic waste into resources, recycling also provides opportunities to reduce oil usage, carbon dioxide emissions and the waste quantities destined for disposal, freeing up landfill space. Furthermore, it fosters local economic growth through employment opportunities, especially in the collection, sorting and pre-processing of plastic waste. Typically, a plant producing about 50,000 metric tons of recycled plastic will employ around 30 people. While plastics have been recycled since the 1970's, of the seven billion tonnes of plastic waste generated globally so far, only less than 10% has been recycled. So there is a need to encourage circular solutions such as recycling to reduce the impacts associated with plastic waste.



5Rs



Case Study

The below case study was provided by GIVO Africa.

Another big obstacle of plastic waste management is the lack of data on the plastic waste generated, collected and disposed off. GIVO (Give In Value Out), a recycling tech company based in Nigeria, came as a solution by leveraging technologies to facilitate the collection of recyclables directly from households, businesses and individuals, as well as processing these recyclables, mostly plastics, into finished industrial or consumer goods. The particularity of this project is that it collects data on every stage of the recycling process. The first stage involves the collection of recyclables from waste generators like corporations or homes and waste collectors have to bring plastic waste

to one of the GIVO centres. Waste generators are rewarded with cash and non-cash rewards while helping to curb the waste problem in the country. The plastic waste collected is then measured, weighted and documented through technologies like the GIVO app which tracks how much plastic is collected, its worth and when it was last dropped off. Users of the app can either register themselves as waste collectors, waste generators or as GIVO collection points. The second stage of the GIVO waste chain is the processing of waste materials which involves procedures like sorting, washing, resizing, shredding and finally compounding where they make new finished or semi-finished products out of waste materials. Throughout the whole process, sensors record the weight of plastics, to avoid human errors, and send

the data to the GIVO app via Bluetooth. These new products are then sold, as the last stage, to buyers like industries, individuals, off-takers, government and corporations at an affordable price. To this date, GIVO produced over 20, 000 units of consumer goods/industrial goods (such as shredded plastic flakes, eco-panels, and face shields).

GIVO Africa incorporates the Sustainable Development Goals (SDGs), in particular SDG 8 which calls for decent work and economic growth; SDG 11 for sustainable cities and communities; and SDG 12, which is about responsible consumption and production, through creating 15 full time jobs per center and diverting waste from landfills as 90 tonnes of plastics are processed by GIVO annually.





Get to know our Affiliates

In this section we give our Waste Wise Cities Affiliates the possibility to introduce themselves.

Afro Chemical & Steel PLC

[Afro Chemical & Steel PLC's](#) is based in Ethiopia.



AFRO stands for high-quality solution tools that ensure the best results. The company's main goal is to work with city administrations or other entities to tackle the existing solid waste collection issue by providing tools to facilitate the recycling

(via drying process) of organic waste into agricultural input (organic fertilizer) and potentially into animal feed. Improving solid waste collection and recycling in urban areas will reduce the amount of solid waste that goes to landfills, which in turn has significant health benefits and contributes to the overall wellbeing of urban communities.

In 2018, Afro Chemical & Steel PLC installed two (2) 1200kg/day food processing / drying machine for Woldia University. The University utilized the machine to process food waste of 10,000+ students. Unfortunately the machine was damaged during the war

so Afro Chemical & Steel PLC is currently assessing the damages and hopes to get it up and running by the end of December 2022.

Afro Chemical & Steel PLC recently won a tender to supply Salale University with three (3) 600kg/day drying machines. They have finalized the contract and hope to deliver and install these machines in the next budget year (February 2023). One machine is designated for the Medical School, one for the hospital and the third one is for the main campus. The university hopes to utilize all three machines to process food waste from 10,000 + students and staff

The Circulate Initiative



The Circulate Initiative is a non-profit organization committed to solving the ocean plastic pollution challenge and advancing the circular economy in South and Southeast Asia. Along with our partners, The Circulate Initiative work to build more circular, inclusive and investible waste management and recycling systems through two key strategies; incubation and insights.

Incubation

The Circulate Initiative support entrepreneurs, innovators and city planners globally to source, enable and scale solutions that tackle the ocean plastic problem, to ultimately increase the number of promising ventures in South and Southeast Asia. The Organization's flagship program, The Incubation Network, in partnership with SecondMuse, facilitates programs in the region that strengthen the startup ecosystem and drive innovation, investment and inclusivity around waste management, recycling and circular economy solutions.

Insights

The Circulate Initiative develop research, analysis and tools to identify and fill data and insights gaps that hinder efforts to solve the plastic pollution problem. With their network of cross-sector partners, they lead a strategic research agenda that enables innovators, investors and other decision-makers to take action. The Circulate Initiative's tools and insights are open access for the benefit of the wider community. For example, to strengthen understanding of the interconnectedness of climate and waste management, they created the Plastic Lifecycle Assessment Calculator for the Environment and Society (PLACES), which allows users to quantify the climate change and other environmental benefits of plastics recycling.

The Organization's products

Knowledge resources for website: Plastic waste management and recycling GHG Calculator

- [Plastic Lifecycle Assessment Calculator for the Environment and Society \(PLACES\)](#)

Research papers

- [Unlocking the Plastics Circular Economy: A Toolkit for Investment](#)
- [Honing the Habit: Four Insights on Spreading Recycling Behavior](#)
- [Making 'Cents' of Recycling Behavior: The Return on Investment of Spreading the Recycling Habit](#)
- [A Sea of Plastics Claims and Credits: Steering Stakeholders Towards Impact](#)

Waste Wise Cities Affiliates

Do you want to:

- Support Waste Wise Cities and improve waste management in cities around the world?
- Be an official partner of Waste Wise Cities and UN-Habitat?
- Show up on the Waste Wise Cities website?
- Implement the Waste Wise Cities Tool?
- Read about your activities in this newsletter?
- Do much more?

Then [contact us](#) and become a Waste Wise Cities Affiliate! Together we can become Waste Wise!

Waste Wise Cities & African Clean Cities Platform Updates

Waste Wise Cities Challenge – Buenos Aires and Lima meet for a city exchange on solid waste management

From 12 – 15 September 2022, the City of Lima, Peru, the City of Buenos Aires, Argentina, and UN-Habitat organized a study visit on municipal solid waste management, supported by the [Urban Pathways](#) project. The study visit created a platform for mutual learning, and consequently, improvement of solid waste management in both cities.

This collaboration was facilitated under UN-Habitat's [Waste Wise Cities Challenge](#) which connects the "Changemaker City", Lima, committed to establishing sustainable waste management system, with the "Supporter City", Buenos Aires, which will share knowledge and experiences. During the programme, both cities exchanged on their waste management systems, shared challenges and good practices. Thereafter they visited waste management facilities such as a composting centre, Green Points (fixed and mobile selective waste collection points), and recycling groups, covering overall technical, administrative and social aspects of municipal solid waste management.



Camilo De La Cruz Lavan, E-waste analyst from Lima, highlighted Buenos Aires' investment in the social inclusion of waste pickers, their organization across the city, and the capacity they have. "This makes us see the importance of working with our central government on the issue of reforming legal frameworks, especially to boost the social dimension of waste management".

Stefany Lisbeth Aroni Broncano, Municipal Solid Waste analyst stated that "in Buenos Aires, it struck me that they work not only with social actors, but also with the support of many private companies to promote the recycling of the waste they generate. Also fundamental is the way they take care to create normative frameworks to support waste pickers cooperatives to better organize themselves."

From Buenos Aires, Andrea Paiz, operational manager for recycling and circular economy commented that "these exchanges are useful to learn about problems in cities such as ours, and what are the responses and projects they are implementing to address these issues. These responses are very particular, adapted to the social and economic contexts of each of these cities".

For UN-Habitat, Luciana Tuszel, emphasized that this type of exchange is important because it shows the different ways of tackling usual problems and broadens the horizons of action for urban policies.

The study visit enabled Lima's delegation to identify challenges and vulnerabilities in the waste sector, and to learn about good practices for recovery facilities' operation and education programmes, as well as the waste management governance system. The team from Lima drafted an Action Plan during the study visit, which will form the basis to mobilize necessary resources for implementing priority actions. This study visit has been one step towards a long-term collaboration between the two cities and UN-Habitat and has left both cities full of ideas to further improve their solid waste management.



The Third ACCP Assembly

Tunis, 25th July 2022 – The Third Assembly of the African Clean Cities Platform, hosted by the city of Tunis, was held online from the 25 to the 29 July 2022, as one of the official side events of TICAD 8 (8th Tokyo International Conference on African Development). A total of 566 participants from 48 countries met online across the globe and captured the outcomes of activities laid out in the Yokohama Action Guidance adopted in the Second Assembly in 2019 and agreed on the ACCP activities in the coming three years by adopting a new document: Tunis Action Guidance.

The Assembly was opened with remarks from high-level speakers. Najla Bouden, Prime Minister of Tunisia, emphasized that “Our meeting reflects the importance of shared responsibility in the effort to fight against environmental degradation.” The opening session noted the issue of waste management as an issue of this generation, amplified by the climate crisis and the COVID-19 pandemic. Plastic waste and methane emissions were given an additional focus as issues which needed to be addressed at the global level. ACCP was recognized as a catalyst for solving waste management issues by facilitating knowledge and experience sharing, as well as data collection. Finally, the cooperation between Japan and Africa and international organizations was appreciated.

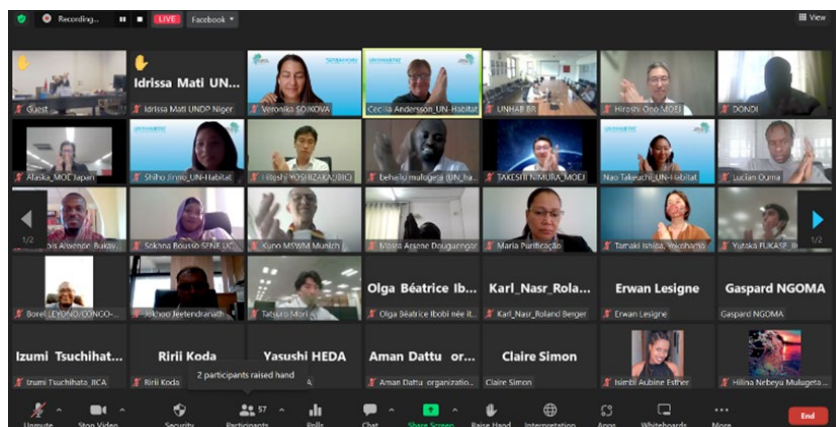
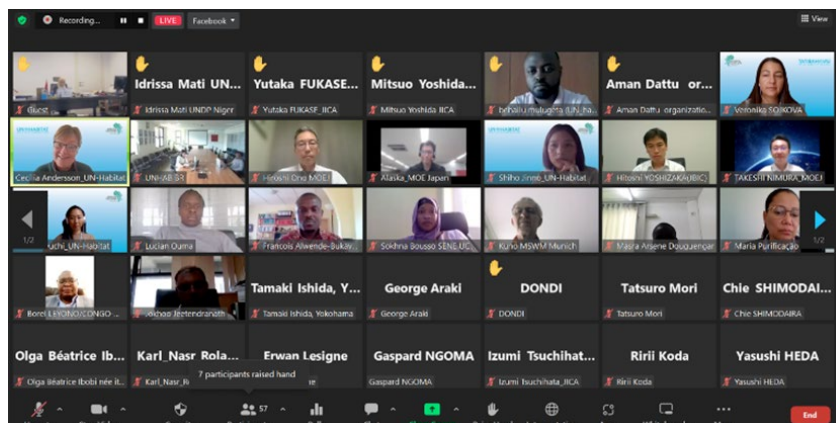
For 5 days, representatives of African municipalities, companies, and Japanese partners actively joined the discussion and reflected on the common waste management challenges faced by African cities, on the progress of African cities in achieving the waste SDGs, and exchanged knowledge and experiences. A business matching opportunity also took place and innovative solutions towards a circular economy by private companies were introduced.



Donor representatives also joined the Assembly, expressing their interest in deepening the partnership with the ACCP. “We are interested in developing meaningful projects in Africa, benefitting from UN tools and knowledge such as the Waste Wise Cities Tool and SDG data”, mentioned Jonas Byström, Waste Management and Circular Economy Expert, European Investment Bank.

The assembly closed with the adoption of the “[Tunis Action Guidance](#)” which lays out the ACCP activity guidelines for the coming years until 2025, the year of TICAD 9.

All recordings and presentations can be accessed here: [3rd ACCP Assembly – Sharing Experiences towards Future Actions- 25-29 July](#).



ACCP Webinar Series – Africa Waste Webinar #5

Nairobi and Osaka, 7 July 2022 – UN-Habitat and the United Nations Environment Programme (UNEP) International Environmental Technology Centre (IETC), with support of the United Nations for South-South Cooperation (UNOSSC) and the Covenant of Mayors in Sub-Saharan Africa (CoM SSA), organized the fifth session of the Africa Waste Webinar Series Plastic pollution from waste – How to “stop the tap” of plastic leakage in African cities?

The webinar was opened with remarks from Francesca Calisesi, solid waste management officer at UN-Habitat. David Marquis, UNEP, then took stock of the global status of plastic pollution and the different international policies and programmes to tackle them, including resolution 14 adopted at UNEA 5.2 on the development of an international legally binding instrument on plastic pollution. Nao Takeuchi, waste management expert from UN-Habitat presented the monitoring tool for SDG 11.6.1, [Waste Wise Cities Tool](#) (WaCT) and the application results

in Mombasa (Kenya), Dar Es Salaam (Tanzania), and Bukavu (Democratic republic of Congo). Dr. Godfrey Nato, County Minister for Environment, Waste Management and Energy and the acting County Minister for Health Services, in the County Government of Mombasa, Kenya, made a presentation on Mombasa’s waste management system challenges, improvements, and the interventions made by the city to integrate the informal waste collectors. Lastly, Francois Marais, from the Producer Responsibility Organization Polyco, presented the extended producer responsibility (EPR) landscape in South Africa, the main actors and the organizations’ EPR responsibilities.

Thereafter, the webinar had a short panel discussion with some questions on plastic waste price fluctuations to ensure fair trade, and direct purchase of plastics recovered by the informal sector. The speakers emphasized the below points:

- To cope with plastic recycling market’s price fluctuation, one of the strategies would be a creation of an economy that creates value at

a local level, building on the system on the ground and strengthening it.

- The market has always centred around the informal waste sector but informal waste pickers remain vulnerable. If we want to create a sustainable SWM system, it is imperative to include the informal waste sector.

The webinar was closed with Mombasa’s story of financial mobilization: The first step is to increase presence in media that allows a city to have a platform and be visible to potential investors, as well as to have accurate data on SWM. Another step is the creation of a multi-stakeholder forum in which members were engaged. Dr. Nato also mentioned that joining different initiatives to tackle MSW problems, such as Waste Wise Cities and African Clean Cities Platform helped in getting the data and connect with donors and other relevant stakeholders.

If you missed the webinar, you can access the recording [here](#) in English and [here](#) in French.

ISWA Congress

The Waste Wise Cities team attended the International Solid Waste Association (ISWA) congress, themed “Don’t waste our future”, hosted in Singapore, 21-23 September 2022. The event was an opportunity to present and promote the [Waste Wise Cities Tool](#) (WaCT) and meet old and new partners of Waste Wise Cities.

WaCT was introduced during the event Circular and Low Carbon Cities (CALC), where tools, challenges and opportunities for cities to make choices that increase circularity and reduce emissions were discussed. Moreover, during the event UN-Habitat – ISWA Dialogue on Waste Wise Cities Tool, WaCT regional and global trends as well as achievements were presented, drawing from WaCT

application in 42 cities globally, and the potential of WaCT to respond to global waste management trends, including the Global Methane Pledge and the upcoming global instrument on plastic pollution was explored. Several participants of the events showed interest in WaCT and sought opportunities to engage with the Waste Wise Cities programme.

Expert Group Meeting on Harmonization Approach for Various Marine Litter and Plastic Pollution Monitoring and Modelling Methodologies

As reported, UNEA 5.2 concluded with the passing of a resolution to establish a legally binding international instrument to end plastic pollution, including in the marine environment. This calls for continuous actions to support and advance the work of the Global Partnership on Marine Litter (GPML), while strengthening scientific, technical and technological knowledge on methodologies for monitoring of plastic pollution and sharing available scientific and other relevant data and information. UNEP's GPML and UN-Habitat's Waste Wise Cities programme have been collaborating to quantify plastic emissions from cities based on SDG indicator 11.6.1 "Proportion of Municipal Solid Waste Collected and Managed in Controlled Facilities out of Total Municipal Solid Waste Generated in the City" for which UN-Habitat is the custodian agency.

As continuation of this partnership, UN-Habitat and UNEP are collaborating to propose an integration/ harmonization approach for the various plastic pollution monitoring and modelling methodologies that exists. As there are many plastic pollution monitoring and modelling methodologies currently, there is a need for a harmonization approach so that monitoring of plastic pollution is conducted in a coherent manner. Monitoring results can then in turn guide meaningful and impactful actions at both the national and local level.

To start the harmonization, a 2-day webinar of inclusive consultation was organized on 2 - 3 August 2022, which introduced the various plastic pollution monitoring and modelling methodologies, inviting key methodology developers with global importance. The 1st day of the webinar focused on global and national models and the 2nd day covered local data collection methodologies and global models for plastic pollution in the environment.

Following the 2-days webinar, a 3-days Expert Group Meeting (EGM) took place in-person in Copenhagen, Denmark, from 22 to 24 August 2022. The EGM aimed to take the discussions forward by exploring the possibility of a combined application of different methodologies for producing data or information to be included in the plastic source inventory, based on a shared understanding of data availability and quality gaps through open and inclusive discussions. Key plastic pollution monitoring and modelling methodology developers with global relevance were invited.

Based on the discussions held in the webinar and the EGM, UN-Habitat will propose possible actions to be carried out aiming at providing clear guidance on selection and use of fit-for-purpose monitoring and modelling methodologies and ensuring data reliability and comparability to end plastic pollution.

World Clean-up Day in Ethiopia

In Ethiopia, due to rapid urbanization coupled with booming industrialization and services, solid waste management (SWM) is becoming one of the key governance issues for municipalities and most cities suffer from low coverage of solid waste management service. The formal system is not collecting more than 50% of locally generated waste.

This year UN-Habitat united with its partners and organized a one-day city wide clean-up on 17 September as part of the World Clean Up Day (WCD) 2022 activities, bringing together all for one positive cause – a clean city.

The WCD 2022 was celebrated in 9 cities of Ethiopia (Addis Ababa, Bahirdar, Hawassa, Jigjiga, Harar, Gambela, Adama, Bonga, and Assosa) and every city was cleansed by the collaborative effort of

officials, volunteers, the community, and other interested parties – cleaning up litter and mismanaged waste from neighbourhoods, streets, rivers etc. More than 550,000 volunteers participated in the country-wide events.

UN-Habitat provided T-shirts, safety vests, banners, posters and clean up

equipment to all celebrating cities with the financial support of the Alliance to End Plastic Waste (AEPW).

UN-Habitat introduced the WCD in 2020 for the first time in Ethiopia and is ever since co-organizing events jointly with the Federal Ministry of Urban Development and infrastructure.



World Clean-up Day in Juba City-South Sudan

This article was provided by Juba City Council



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Juba City Council for the first time celebrated World Cleanup Day on September 19 2022 with participants from Juba City Council, JICA, National Ministry of Environment and Forestry, Office of Public Health and Environmental, Yechiyo Engineering Company, and the police among others. The aim of the event was to demonstrate the waste management reduction strategy which

has been entrusted to the responsibility of Juba City Council leadership. The event created emotional gesture to the entire population as proof of Juba City Council leadership and showed that if empowered it would do much in terms of increasing equipment and facilities to boost the three Rs: Reduce, Reuse, and Recycle.

Thanks to the support of Yechico Engineering Company, three directors of the city blocks, and Director of Environment and Sanitation, the Juba City Council was able to hire Five Sino trucks, and to buy varieties of tools

City Waste Management Group members and the focal person for ACCP stood firm to facilitate this important event which has brought many to participate freely with the zeal for nationalism, trust and commitment.

For future events, the council will continue to work together with its partners, either internationally, or regionally in order to promote Juba City Council waste management. Nonetheless, Juba City Council will engage the national government, state government and local Councils and the residents of Juba City



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World Clean-up Day in Homa bay County-Kenya

According to records in the Municipality, Homa bay "chokes from the effects of environmental degradation, air pollution, water pollution, indiscriminate waste dumping, open burning of waste, vandalism of waste infrastructure" among many other challenges. With the efforts to tackle those waste management issues, the Governor of Homabay county Gladys Wanga launched a series of cleanup campaigns on waste management to realize better environment in the county and raise awareness of the residents.

Speaking at the inaugural town cleanup event in Homa bay, Governor Wanga stated that "the sorry state of waste management continues to discourage investors and tourists coming into the county, further hurting the tourism potential, especially within the scenic shorelines of Lake Victoria". She added that the poor status of sanitation in the municipality has also discouraged traders from making prompt and timely payment

of taxes leading to low revenue collection by the County Government. "Our town clean-up activities will positively impact on revenue collections. The current state of sanitation in major urban centres within our county will soon improve through renewed efforts on sustainable waste management and collaboration with partners".

Read more on our [website](#)



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Waste Wise Cities in the LATINOSAN 2022, Cochabamba, Bolivia

The sixth Latin American Sanitation Conference (LATINOSAN) was held from 11 to 14 October 2022 in Cochabamba, Bolivia. LATINOSAN started in 2007 and has been organised every three years. This year was the first time that waste management issues were addressed in LATINOSAN.

UN-Habitat, together with the Inter-American Development Bank (IDB), UNEP and the Ministry of Environment and Water in Bolivia, organised two sessions:

(1) Solid Waste Meeting

On the first day, the Waste Wise Cities programme and the WaCT were introduced to the representatives from Latin American countries and other participants from the region. After the session, many participants showed their interest to join Waste Wise Cities and apply WaCT in their cities. In addition, a possibility to identify synergies between the WaCT and the tool developed by IDB for climate change, circular economy, and waste management was discussed.

(2) Integrated solid waste management

and its impact on water bodies

The WaCT application in the Dominican Republic was presented on the second day. Considering the movement to close open dumpsite through a voluntary coalition in the region, the control level of the final disposal site and transfer station in the studied area raised a question: what kind of action is needed to improve the situation?

Waste Wise Cities is welcoming the cities in Latin America and the Caribbean region to join, as well as to apply WaCT.



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Call to Action

- Share with us your good practices of how to manage plastic waste by private companies, public institutions or any waste management practitioners!
- Promote separate collection to facilitate recycling of plastic waste!
- Become an ACCP and/or Waste Wise Cities member or affiliate and share your stories with us!