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Waste Wise Cities & Afrcan Clean Cities Platform NEWSLETTER

#20

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Waste to Energy

Challenges and Opportunities of implementing Waste to Energy Initiatives

Waste to Energy (WtE) is a cutting edge technology that transforms municipal solid waste into electricity and heat. This technique not only addresses challenges involved in waste disposal but also provides an alternative energy source.

By converting waste into energy, WtE facilities offer a sustainable solution that helps power homes, factories, and industries.

Generally, the process involves the combustion of waste materials to produce steam, which then drives turbines to generate electricity. Moreover, WtE stands out as an eco friendly energy solution.

By reducing the volume of waste sent to landfills, WtE minimises environmental impacts by preventing greenhouse gas emissions and soil contamination. The ash produced during combustion can often be repurposed as construction materials, further reducing the need for new raw resources.

Integrating WtE into waste management strategies not only alleviates the pressure on diminishing land-fill spaces but also promotes sustainable development by providing a steady supply of clean energy. Overall, WtE represents a significant step toward more responsible and eco-friendly waste management practices.

► Challenges

High initial cost and financial vulnerability

Setting up WtE facilities requires a significant investment in infrastructure, technology, and regulatory compliance. This substantial financial requirement can pose a barrier, particularly in areas with limited capital access for waste management.

Furthermore, the operational and maintenance costs are high, making it challenging for WtE plants to compete economically with other waste disposal methods or energy generation sources.

Environmental concerns

Despite advancements in technology, WtE plants can still emit pollutants, including dioxins, furans, and heavy metals, which pose environmental and public health risks. Ensuring that these facilities comply with stringent emissions standards requires continuous monitoring and investment in advanced pollution control technologies. Public opposition to WtE projects due to environmental and health concerns can also delay or halt their development.

Regulatory and Policy concerns

The success of WtE initiatives is heavily dependent on supportive regulatory and policy frameworks. Inconsistent regulations, lack of incentives, and complex permitting processes can hinder the development and operation of WtE plants.

► Opportunities

Renewable Energy

Waste to Energy projects play a crucial role in bolstering renewable energy portfolios, lessening dependence on fossil fuels. They harness waste materials to generate power, thus aiding in the transition towards sustainable energy solutions.

Greenhouse Gas Reduction

By diverting waste from landfills, WtE helps reduce methane emissions—a potent greenhouse gas. Additionally, it can offset carbon dioxide emissions by replacing energy produced from fossil fuels.

Resource Recovery

Modern WtE facilities often include mechanisms for recovering valuable materials, such as metals, from the ash produced by incineration. This contributes to recycling efforts and reduces the need for raw material extraction.

Waste-to-energy initiatives provide a viable solution to the growing waste management problem by generating energy and reducing landfill use. However, they face significant challenges such as high costs, potential health risks, and environmental concerns.

To ensure the success of WtE projects, it is essential to implement robust technology, enforce stringent regulatory frameworks, and foster active public engagement. Managing these challenges effectively will help maximise the benefits of WtE, making it a sustainable approach to waste management.

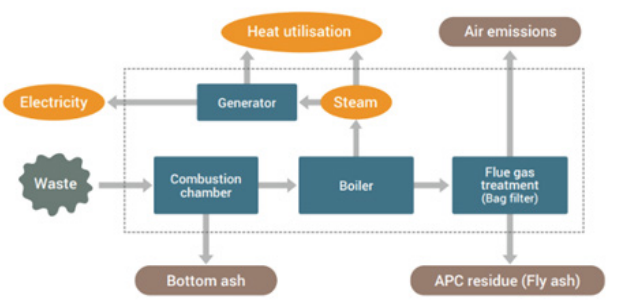


Figure 1: Typical flow chart of WtE incineration plant © IGES

Case Studies

CCET guideline series on intermediate municipal solid waste treatment technologies:
A Case Study of Waste to Energy incineration

This article was contributed by Miho Hayashi, Institute for Global Environmental Strategies (IGES).

The management of municipal solid waste (MSW) is crucial for meeting the goals of the Paris Agreement and the 2030 Agenda for Sustainable Development. The Paris Agreement encourages countries to include waste management in their nationally determined contributions (NDCs) to reduce greenhouse gas (GHG) emissions, harness waste for energy, recycle, and capture landfill methane.

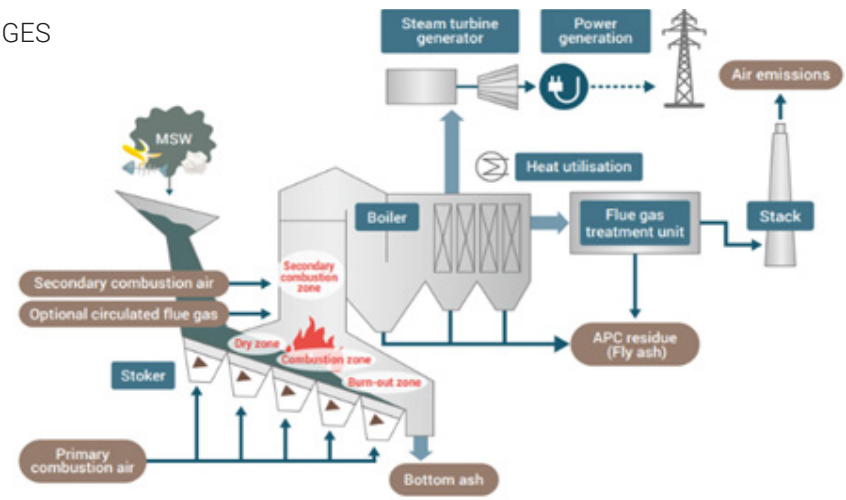
Sustainable Development Goal (SDG) 11 targets reducing the environmental impact of cities, emphasising air quality and waste management, while SDG 12 promotes the prevention, reduction, recycling, and reuse of waste, including food waste. Despite these initiatives, the World Bank (2018) projects a significant rise in global waste generation from 2.01 billion tonnes in 2016 to 3.40 billion tonnes by 2050, especially in developing countries in Asia and Africa.

This indicates limited success in curbing waste generation, highlighting the need for a circular economy to reduce waste production sustainably. While waste-to-energy (WtE) incineration helps reduce waste volume and recover energy, only a circular economy can address the global issue in the long-term.

Project Concept

Waste to Energy incineration involves direct controlled burning of waste at temperatures of 850°C and above, coupled with basic mechanisms to recover heat, energy, and ensure cleaner emissions. This technology has advanced significantly addressing air pollution and dioxins (Makarichi et al., 2018). MSW incineration effectively reduces waste volume and controls disease, making it suitable for large urban areas.

© IGES



Despite its benefits, MSW incineration faces challenges including high construction and operational costs, inadequate revenue from waste disposal and energy sales, and the need for a minimum feedstock volume, which may detract from recycling efforts, and pose potential health risks (Karim and Corazzi-ni, 2019; GAIA, 2019).

▶ Opportunities

Coupled with increasing energy demand and global support, expectations are rising that WtE incineration will be a more stable source of energy than even solar and wind power, resulting in increased demand for WtE incineration systems in the future. Typically, WtE incineration poses opportunities for:

Cities with rising waste quantities and limited space for landfills as they become more urbanised that are seeking ways to quickly reduce the volume of waste.

Cities that are seeking additional benefits from waste treatment, such as reducing greenhouse gas emissions by eliminating landfills, as well as recovering energy from waste and increasing economic incentives through waste management and energy recovery.

Cities that are seeking effective technology for sterilisation and waste related infections, as the high temperature conditions in WtE incineration systems are effective in controlling infections from viruses or microbes in waste and residue after recycling.

▶ Challenges

High moisture content, low combustibility, and seasonal waste variations make it unsuitable for direct incineration. Waste quantity fluctuates due to collection systems, governance, seasons, and natural disasters. Inadequate monitoring and assessment further increase the risks and can lead to operational failure.

Public private partnerships (PPPs) offer a promising solution for MSW management, but often the private sector dominates, or local authorities fail to manage facilities effectively, leading to operational challenges.

Weak enforcement of environmental laws, lack of continuous emission

monitoring, and insufficient due diligence by investors and the public sector can lead to severe human health impacts and irreversible environmental damage.

In low-income countries, lack of investment and high operational costs have resulted in Waste-to-Energy (WtE) incineration plants that meet only basic technical standards, often lacking backup systems like pumps, piping, electronic controls, additional furnaces, or proper flue gas filters. These low-cost plants face higher breakdown risks due to these deficiencies.

Harnessing Waste for Power: An Economical Approach in Kibera

This article was contributed by Mr. Dennis Juma, CEO Mtaa Safi Africa, Kenya.

Waste management and energy generation are critical issues faced by urban areas today. Combining these challenges into a single solution, the concept of "Waste-to-Energy" (WtE) has gained prominence. This case study explores the implementation, benefits, and outcomes of a WtE project in Kibera.

Transforming Waste into Resources

In Kibera, waste management poses significant challenges due to high population density and limited space. Our WtE initiatives aim to address these issues by converting waste into valuable products, thereby promoting environmental sustainability and economic growth.

Organic Waste to Biogas and Fertiliser: A significant portion of waste in Kibera is organic, which we convert into biogas and fertiliser. The biogas system processes organic waste to produce gas for cooking and heating, while the remaining bio-digestate is transformed into fertiliser, preventing sewage from polluting waterways. This activity not only provides a renewable energy source but also supports urban farming.

Biogas System Benefits

Energy Generation: Provides a sustainable alternative to firewood and reduces the need to burn hazardous materials for cooking.


© Mtaa Safi Africa

Environmental Impact: Reduces the diversion of sewage systems into streams and promotes a cleaner environment.

Economic Impact: Creates jobs for youth, providing them with meaningful engagement and reducing idleness. Despite high initial setup costs and space constraints, we are excited to announce that two biogas systems will be installed this month, thanks to generous donations. This marks a significant step towards achieving sustainability in Kibera.

Dried Food Technology: Another innovative technology that is being implemented is the biogas dryer. This device helps prevent post harvest waste by drying fruits and vegetables, thereby extending their shelf life and increasing their market value.

Biogas Dryer Operation: The dryer runs entirely on biogas. A burner at the base distributes the heat necessary for drying the produce, dehydrating it, and preserving its natural flavor.

Benefits

Post-Harvest Loss Reduction: Minimises waste by preserving surplus produce during bountiful harvests.

Shelf-Life Extension: Increases the longevity of fruits and vegetables, allowing farmers to sell them at higher prices when they are scarce.

Economic Value Enhancement: Dried produce fetches higher incomes, providing a significant economic boost to farmers.

Get to know our Affiliates

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

Madam Waste

Madam Waste is a 100% African female-owned urban and energy planning firm based in Johannesburg, South Africa and Kigali, Rwanda. Given the high rate of urbanisation and ever-increasing demand for sustainable and clean energy, Madam Waste (MW) realised that there was a need to be part of the solution.

They saw a myriad of opportunities to change the narrative of urban waste management and energy access in cities. They saw the possibility of opening new markets for waste valorisation services and products that induce a circular economy, and tangibly realise the sustainable development goals. MW has done work for African governments (local governments in particular), agricultural practitioners and small-scale farmers, corporate and research institutions, and organic farmers.

Their vision is to be an advocate for the adoption of decentralised clean energy systems in rapidly urbanising African cities. Through their work, they have realised Sustainable Development Goals 7, 11 and 12, harnessed opportunities in the organic waste value chain, and promoted a Circular Economy.

The services offered are tailored to each client's interest to avoid generic solutions for diverse contexts. MW's niche is the company's ability to integrate urban planning with (organic) waste management and renewable energy (biogas).


© Madam Waste

Advisory and Technical services offered include but are not limited to five interlinked business units: Strategic Consulting, Green Design Thinking Workshops, Green Events Collection & Valorisation, Urban Biogas System, and our in-house podcast titled 'Not Wasting a Single Story'.

Greenland Renewable Energy

In pursuit of sustainable environmental practices, Greenland Renewable Energy is dedicated to significantly minimising the presence and impact of landfills and dumpsites. Through a meticulously structured approach encompassing collection, separation, and comprehensive conversion of waste into valuable resources, they strive to achieve optimal waste utilisation.

This initiative not only mitigates environmental degradation but also aligns with global ambitions to achieve net-zero carbon dioxide (CO_2) emissions by 2050, crucial for stabilising global temperatures. Central to their mission is the implementation of advanced waste to energy solutions, revolutionising the production, transportation, and consumption of energy.

By harnessing innovative technologies, they aim to convert waste into renewable energy sources, thereby fostering sustainable development and creating employment opportunities within the community and beyond.

Their commitment to sustainability extends beyond immediate environmental benefits; it represents a paradigm shift towards a circular economy where waste is viewed as a resource rather than a burden.

Through education, innovation, and strategic partnerships, they are paving the way for a future where evironmental stewardship and economic growth go hand in hand. Their efforts are not just about waste management but about shaping a resilient and sustainable future.

By embracing these transformative practices, Greenland Renewable Energy aims to leave a positive legacy for generations to come, demonstrating that enviromental responsibility is integral to societal progress.


© Greenland Renewable Energy

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 (WaCT)?
- 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 Tool (WaCT)

Have you forgotten what the Waste Wise Cities Tool (WaCT) is? No need to worry, you can access all the relevant information on our website.

Here you can explore which cities have already submitted data collected with the Waste Wise Cities Tool. As indicated in the article below, additional data is continuously becoming available.

WaCT application in Jigjiga, Ethiopia and Zomba Malawi

Jigjiga, Ethiopia and Zomba, Malawi conducted the WaCT survey under the ACCP in the past months. Jigjgia is the capital city of the Somali Region of Ethiopia with about 418,000 inhabitants and conducted WaCT in May and June 2024.

The results show that the city generates 224 tonnes of Municipal Solid Waste (MSW) per day, which means that each person generated 0.54 kg of MSW per day.

The collection rate is 65 %, the city recovery rate is 1 %, and SDG 11.6.1 is less than 1%. Since many recovery facilities are categorised as "Limited control" levels, they could reach "controlled facility" if they upgrade the control level through improving a few standard items of the facility.

Zomba is a city located in southern Malawi with a population of 119,116 in 2024. The city generates approximately 115 tonnes per day of MSW, which equivalent to 0.96 kg per person per day. The collection rate is 29% and city's recovery rate is 5%.

In Zomba, all recovery facilities and disposal facilities are categorised as controlled facilities providing a Basic level of control, therefore, the SDG 11.6.1 is 29%, higher than other African cities where WaCT was conducted.

The ACCP will continue to apply WaCT in its member cities, however, the Secretariat has limited resources to apply WaCT in all ACCP member cities.

It is ready to provide technical support online, for example, trainer's training, scheduling of on-the-ground activities, data entry and validation, etc.

If you can proceed with a Do-ItYourself WaCT application in your city, please do not hesitate to contact us!

WaCT application with the support of UN Development Account

From May to June 2024, UN-Habitat conducted WaCT studies in three cities: Abuja, Nigeria; Freetown, Sierra Leone; and Bissau, Guinea-Bissau, with the support of the UN Development Account.

The responsible unit of municipal solid waste management in each city led the on-the-ground activities to collect the data cooperating with households, communities, private companies and other stakeholders.

Following the application of the WaCT and Waste Flow Diagram to determine plastic leakage, local stakeholder workshops were organised in the cities to share the actual situation, identify the challenges and opportunities, and discuss the actions to improve the municipal solid waste management system.

All the results will be shared with UNEP to create or update MSWM policy and regulations and for actual impacts on the ground.
Each city's data will be uploaded on the WaCT data portal.

Revisiting WaCT steps 4 and 5 in Nakuru County Kenya

Key highlights

UN-Habitat collaborated with Nakuru County's Director of Environment and officers to gather data on SWM recovery facilities, disposal sites, and other environmental data.

There are seven Municipal Solid Waste Apex traders in Nakuru city, Naivasha, and Gilgil. Mob Enterprise in Nakuru's industrial area is the largest Apex trader, with Epantus being the biggest glass trader, and Griincom the leading composter.

Disposal sites include Gioto in Nakuru and Naivasha, with Gioto receiving 60 truckloads per day and Naivasha 10. Both sites lack weighbridges, relying on toll receipts for records. Gioto has about 200 waste pickers, while Naivasha has 60.

A strong rapport was established with Nakuru County's Director of Environment, facilitating smooth project implementation.

Data collected is now being entered into the Data Collection App (DCA) and the Waste Flow Diagram (WFD) to assess plastic leakage into water bodies.

Next Steps

A stakeholder workshop will be organised to validate survey results, followed by a report on the MSW waste audit, highlighting policy interventions and infrastructure investment needs.

Stakeholders Workshop to Validate WaCT Findings and Chart Pathway for Improved Sustainable Municipal Solid Waste Management in Freetown, Sierra Leone

A stakeholder validation workshop was held on June 25, 2024, in Freetown City, Sierra Leone, to review and validate the findings of the Waste Wise Cities Tool (WaCT) survey.

The event gathered local council authorities, Ministries, Departments and Agencies, donors, dumpsite operators, informal sector participants, and other partner organisations involved in municipal solid waste management (MSWM).

The primary objective was to examine the WaCT findings, identify existing financial, policy and infrastructure gaps in MSWM, and recommend interventions which should be prioritised for sustainable waste management in Freetown.

In his opening remarks, the Chief Administrator of the Freetown City Council (FCC) highlighted the council's commitment to continued collaboration with UN-Habitat, noting the importance of understanding the current MSWM system status for effective planning.

Mayor Yvonne Aki-Sawyerr welcomed attendees, emphasising the need for data driven planning for proper MSWM interventions. "The familiar faces here are well-versed in the waste management landscape. It's time to transition from theory to practice achieving a clean Freetown, starting with everyone in this room," she stated.

The WaCT survey identified key issues such as the estimated quantity of municipal solid waste (MSW) generation, low collection coverage, low recovery rate, and uncontrolled waste disposal practices.

It also highlighted the city's challenges, including limited resources and infrastructure. Workshop recommendations focused on increasing investment in collection and recovery, targeting 60% and 40%, respectively.

Additionally, suggestions included raising awareness about source separation and implementing a clean Material Recovery Facility (MRF) model.

Immediate priorities included enacting and enforcing sanitation bylaws, expanding waste collection fleets, and improving basic control at disposal sites.

The workshop concluded with a consensus on the necessity for continuous collaboration and frequent monitoring to ensure the successful implementation of the proposed actions.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The active participation of diverse stakeholders underscored a shared commitment to achieving sustainable waste management solutions in Freetown.

Waste Wise Cities & African Clean Cities Platform Updates

International Day of Zero Waste 2024

The International Day of Zero Waste, observed annually on 30 March, highlights both the importance of bolstering waste management globally and the need to promote sustainable consumption and production patterns.

The International Day of Zero Waste raises awareness of the importance of waste management and responsible consumption and production practices for sustainable development. The Day calls on everyone to embrace a lifecycle approach, which entails reducing resource use and emissions to the environment throughout all stages of products' life cycles.

This year's International Day of Zero Waste was successfully organised by the United Nations Human Settlements Programme (UN-Habitat), and United Nations Environment Programme (UNEP) on 27th March 2024.

The International Day of Zero Waste, highlights both the importance of bolstering waste management globally and the need to promote sustainable consumption and production patterns.
The Secretary-General established the Advisory Board of Eminent Persons on Zero Waste (the Advisory Board on Zero Waste) at the High-Level Meeting on the Role of Zero Waste as a Transformative Solution in Achieving the Sustainable Development Goals, held during the General Assembly on 30 March 2023 for three years.

The 12 members that constitute the Advisory Board are to promote local and national zero waste initiatives through awareness raising, promoting local and national zero waste initiatives, and the dissemination of best practices and success stories towards the implementation of the United Nations General Assembly resolution 77/161. To commemorate the second annual International Day of Zero Waste, the United Nations Secretary-General's Advisory Board of Eminent Persons on Zero Waste highlighted three out of sixteen selected zero waste good practices from around the globe.

The practices intend to provide citizens, the private sector, civil society organisations, and governments in the waste chain with information to enable them to prioritise waste management and implement and replicate initiatives that contribute to addressing the global waste crisis.

The Advisory Board will showcase and spotlight more success stories, case studies and thematic briefs during the year.

This knowledge will help them prioritise waste management and implement replicable initiatives that address the global waste crisis.


© Olena

By adopting these practices, stakeholders can contribute effectively to sustainable waste management and environmental protection. The International Day of Zero Waste raises awareness of the importance of waste management and responsible consumption and production practices for sustainable development.

The Day calls on everyone to embrace a lifecycle approach, which entails reducing resource use and emissions to the environment throughout all stages of products' life cycles.

Circular Construction & Housing in Sub-Saharan Africa (CiCoSA)

The "Circular Construction and Housing in Sub-Saharan Africa (CiCoSA) - A waste wise approach to sustainable building and construction (SBC) in Sub-Saharan Africa", funded by the German Federal Ministry for Economic Cooperation and Development, the project aims to strengthen the sustainable building and construction sector (SBC) by applying circular economy and low-carbon principles (waste wise approach) to the housing value chain, improving access to affordable housing and reducing the ecological footprint of cities in Sub-Saharan Africa.

Thus, the project directly contributes to the shift towards a green economy, which is resource-efficient, socially inclusive, and low in carbon emissions.

Training of Trainers in Namibia

The CiCoSA project is developing an Action Toolkit consisting of the CiCoSA Handbook and Implementation Guide with a focus on Kenya and Namibia.

Training of Trainers in Kenya

The CiCoSA Handbook examines the benefits and risks of circular economy approaches in the SBC sector from a waste management perspective, offering scalable practical case studies in the region, while the CiCoSA Implementation Guide serves as a roadmap for policymakers in Sub-Saharan Africa to navigate challenges on circular construction, emphasising community empowerment and cross-sector collaboration. It outlines the various stages of circular construction.

The CiCoSA Action Toolkit is at its final stage of completion after several consultations and discussions: the first Expert Working Group (EWG) meeting (18th January 2023), validation forum for circular construction with stakeholders in collaboration with the National Construction Authority of Kenya (21st May 2024), the second EWG meeting (21st May 2024), and the training of trainers in Namibia (27th May 2024) and Kenya (29th & 30th May 2024).

On 7th August 2024, the pre-launch event of the CiCoSA Handbook and Implementation Guide was held, inviting the key players in the building and construction sector, especially in Kenya.

After its official launch, the CiCoSA Action Toolkit will be accessible on the Waste Wise Cities programme page of the UN-Habitat website.

This will make the toolkit available to all, empowering cities and stakeholders to take concrete steps towards circular construction and sustainable urban development.

Scan the QR code to read more.

World Environment Day 2024: Focus on Sustainable Urban Living

World Environment Day (WED) 2024, celebrated on June 5th, was centered around the theme "Sustainable Urban Living." This year's focus highlighted the urgent need for cities around the world to adopt sustainable practices to combat climate change, reduce pollution, and enhance the quality of life for urban residents.

With urban areas rapidly expanding, addressing environmental challenges within cities has become a critical priority. WED 2024 served as a significant platform to highlight the efforts of initiatives like Waste Wise Cities.

By showcasing sustainable waste management practices on the global stage, more cities can be inspired to adopt these methods, contrib-uting to the overall goal of sustainable urban living.

UN-Habitat, through programmes like Waste Wise Cities and African Clean Cities Platform, collaborated with governments to develop business models and attract investments for circular and zero waste economies.

The discussions and commitments generated during WED 2024 can significantly influence policy-making.

Waste Wise Cities can leverage this momentum to advocate for stronger waste management policies and the adoption of best practices.

By aligning their efforts with the goals of WED 2024, the Waste WiseCities programme and the African Clean Cities Platform can drive meaningful policy changes that support sustainable urban living.

On World Environment Day 2024, UN-Habitat reaffirmed its commitment to promoting socially and environmentally sustainable towns and cities.

Helping to create cities that are not only environmentally friendly but also enhance the quality of life for all urban residents.

By addressing issues like waste management and climate, and leveraging the power of data, for instance, UN-Habitat helps cities become engines of sustainable development.

The UN Secretary-General 's Advisory Board of Eminent Persons on Zero Waste

After a successful implementation of the first half of the workplan, the Advisory Board convened for a second time. The second meeting of the Advisory Board was conducted online on 5th June 2024.

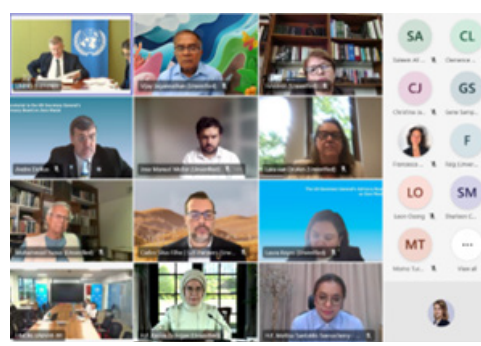
Moderated by Mr. Guy Ryder, Under-Secretary-General for Policy, the meeting began with opening remarks from both the Chair and Deputy Chair.

The Board discussed concrete deliverables that have generated an impact and elevated the dimensions of zero waste in various processes. They also refined the strategy for the next six months, identifying distinct outputs and actors to amplify the whole of society zero waste movement.

The special guest, Mr. Mukhtar Babayev, President Designate of COP29, provided a platform for discussing potential engagement during COP29 in Baku, Azerbaijan.

As part of a broader horizon, the Board will explore and relay opportunities to galvanise a global movement for a zero-waste future, maintaining momentum through its extensive networks.

Finally, considering the numerous zero waste programmes and initiatives implemented across the globe, the Board will examine potential synergies to enhance collaboration at a macro level.



Zero Waste Webinar series

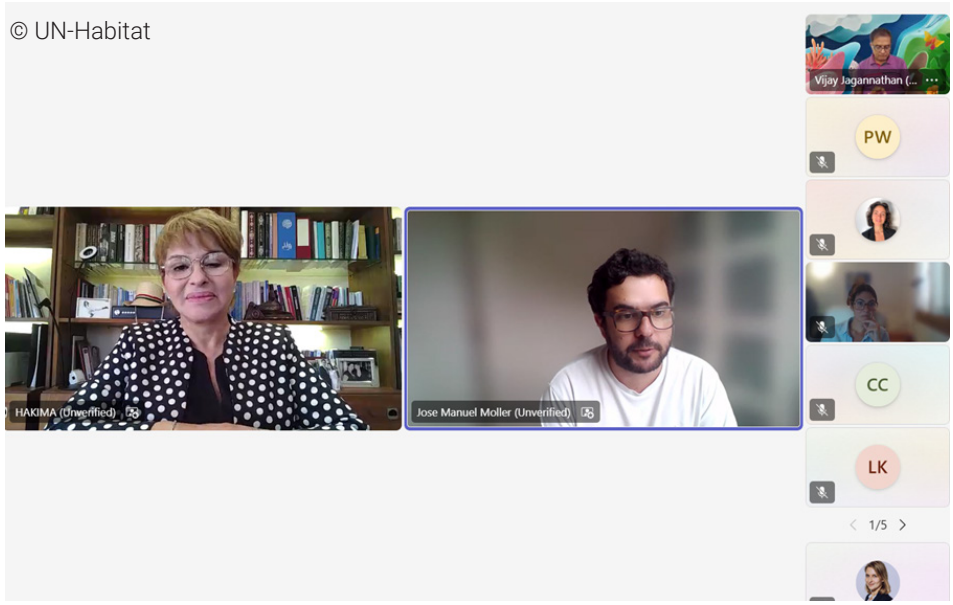
The UN Secretary-General's Advisory Board on Zero Waste is launching a webinar series to promote a transition towards a zero waste society and highlight exemplary zero waste initiatives worldwide.

The inaugural edition focused on waste prevention and reduction, took place on 15 July 2024.

This online event, hosted on Microsoft Teams, showcased strategies to minimise waste generation at its source.

The webinar featured presentations on refill and reuse systems, empowering change through local initiatives, and innovative projects like Plastic Free Balearics and Cassava peel recycling for animal feed.

Participants, including policymakers, industry professionals, environmental advocates, and NGOs, will engage in discussions on effective strategies for achieving zero waste.



By promoting good practices and fostering collaboration, the webinar seeks to inspire broader action towards a zero waste future. Further good practices collected by the Advisory Board can be found on its webpage.

Additional zero waste webinars will be organised:

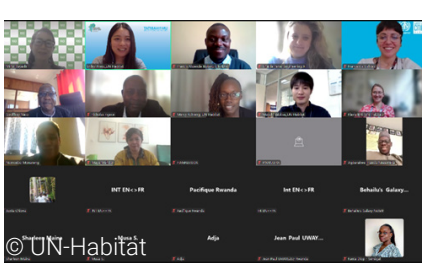
- Methane Emission Reduction from Waste
- Circular Economy and Resource Recovery
- Awareness and Sensitisation
- Sustainable Production and Policy Reform
- Social Business as Driver for Zero Waste
- Food Waste and Decentralised Solutions
- Waste Management as Climate Change Mitigation Action and Its Financing

We hope to see many of you in the webinars during the coming months.

African Clean Cities Platform Webinar Series

The African Clean Cities Platform organised the Africa Webinar Series in May and July 2024, inviting many speakers from different member cities to share their knowledge and best practices.

The first webinar looked at open waste burning, inviting speakers from Engineering X, IGES, and an ACCP member from Bukavu, DRC.



Engineering X discussed the present status and consequences of open waste burning in Africa, followed by a presentation of the challenges of waste burning faced by ACCP members primarily due to a deficit of waste collection.

IGES then presented the excellent practices in Asia, with findings replicable in African countries and cities to limit the impact of the greenhouse gasses from the MSWM sector.

During the second Webinar, the ACCP launched its awareness-raising toolkit which comprised a silent film, a comic book, and an environmental education guidebook.

The introduction of the toolkit was followed by relevant presentations by a Community-Based Organisation based in a slum in Nairobi, JICA, and our member city Kweneng District from Botswana, who shared their practical waste management activities and how to organise and enjoy the proess.

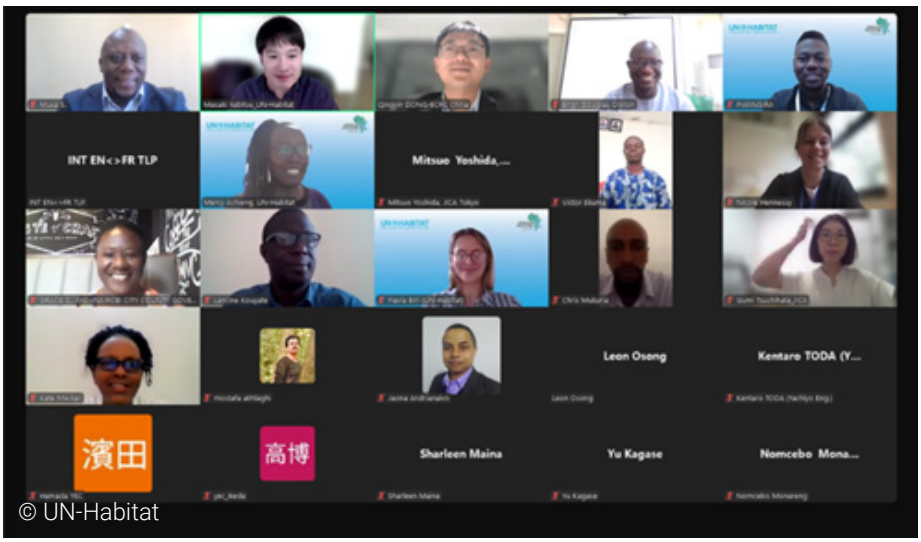
The launched awareness raising toolkit is available here.

The third Webinar invited an ACCP Member city from Zambia to share their knowledge on the circular economy and their project to reform the unit responsible for MSMS in Lusaka.

There were many questions and discussions on how to create a circular system in African cities. This led to the realisation that more good practices should be shared among the members to popularize the 5R concepts in daily life.

The final webinar was about Hazardous waste, a challenge which many member countries and cities are struggling to manage.

The webinar discussed best practices and knowledge on sound waste management and hazardous waste.



The growth rate of most African cities is very high, this extreme population growth leads to increasing problems with proper waste management.

Waste such as e-waste and medical waste are categorised as hazardous and have limited management strategies, often causing massive pollution in the environment and potential exposure to health hazards.

There is a need to identify what negative impact this creates and the suitability and feasibility of potential solutions for African cities.

Overall, the webinar called upon African cities to recognise the status of waste management and the challenges faced by different ACCP members, as well as to explore the right solutions in their cities by learning from each other.

Call to Action

- Share with us your good practices of Waste to Energy, zero waste practices, and other innovative solutions related to waste to energy initiatives!
- Proactively implement and enforce robust Waste to Energy schemes in your cities for sustainable waste management!
- Become an ACCP and/or Waste Wise Cities member or affiliate and share your stories with us!
- Visit our ACCP and Waste Wise Cities websites for more details on our projects in Waste to Energy!

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