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PLASTIC SMARTCITIES | WWF | WASTE WISE CITIES

CITY ACTION PLAN
on Plastic

[CITY]
[COUNTRY]
[DATE]

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Commented [UNH2]: Update after finalizing the document

Foreword

On behalf of [City] I hereby present our City Action Plan on Plastics. The plan outlines our commitment to a No-Plastics in Nature Agenda, by laying out the actions planned for the next two years. It will give stakeholders and communities an insight into the current performance and our ambition to tackle plastic waste pollution.

Our growing waste stream is uniquely representative of the many challenges now facing our community. With [enter figure] tons of plastic waste generated annually in [City], and with waste generation expected to increase in the coming years, plastic waste prevention and management programs are critical to the health and well-being of our citizens. Poorly managed plastic waste affects human health and livelihoods, it effects our environment, living creatures, and economic opportunities. Therefore, a well-developed City Action Plan on Plastic is critical to ensuring a sustainable, healthy, and inclusive community.

First, we must take inventory by monitoring our local waste stream, collecting hard data to guide our city strategy. Second, we must commit resources to educate, motivate and mandate - both individuals and industry - to adopt waste prevention strategies that reduce the volume of waste that must be collected and managed in controlled facilities at the local level. Third, we must employ a scalable waste management program that adheres to the universal waste hierarchy, understanding that the largest gains in reducing pollution can often come from preventing waste and improving waste collection and processing methods.

Looking at the priority areas, it is important to note that the city itself can never be successful on its own; we must work together as a community to tackle plastic pollution.

Signature High-Level City Official

Commented [UNH3]: By a high-level city official (Mayor/Deputy Mayor, etc.).
Text is a suggestion and should be replaced

About the City Action Plan on Plastic

[City] has the overall responsibility for implementation of the City Action Plan on Plastic (CAP), which outlines key focus areas, measures to be implemented and monitoring processes to measure successful outcomes. [City] will consider annual updates to the CAP, thereby ensuring that the CAP continues to drive innovation and solve local plastic waste challenges.

Main Objectives

The [City] Government will reduce plastic pollution by:

Commented [UNH4]: Adapt to your city

1. Eliminating the use of unnecessary plastics with a focus on waste prevention;
2. Improving waste collection and management processes to minimize leakage;
3. Increasing plastic recovery for reuse and recycling;
4. Monitoring city-wide activities aimed at reducing, minimizing and managing plastic waste, in an effort to optimize interventions.

Background

In [year] an estimated [enter figure] tons of plastic waste generated in [City] leaked into the environment. While our city [will rapidly increase its population density], we must also continue to adopt smart solutions that reduce the collective impact of our prospering communities. This means preventing, minimizing and managing plastic waste.

There are many initiatives already underway at [national level] in [country] [and/or] at [local] level in [City]. [The Agency Name/The City] launched [project name] in [year], with a goal to [enter the goal].

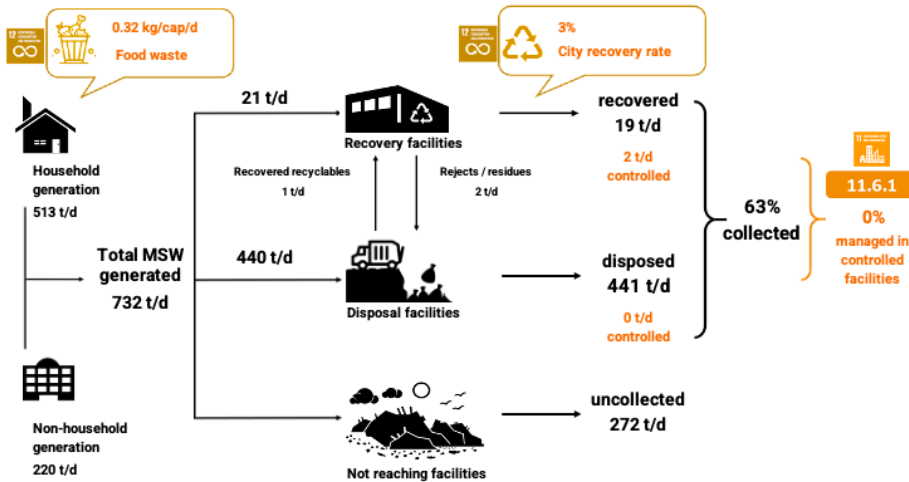[Add other similar initiatives here].

Current status of plastic waste management in [City]

To establish a snapshot of the plastic waste management in [City], a baseline assessment was conducted in [Year] in accordance with three international methodologies, the Waste Wise Cities Tool (WaCT), the Waste Flow Diagram (WFD) and the Wasteaware Benchmark Indicators (WABIs).

The results of the baseline assessment revealed that our city produces [enter tons] tons of municipal solid waste (MSW) annually. Of that, [enter tons] originates from household sources with the remainder being generated by commercial institutions, markets, offices and in the public space. Plastic accounts for [enter percentage] of total waste composition in the baseline scenario.

Sustainable waste collection services are a prerequisite to a functional MSW system. The share of population covered by waste collection services was estimated at [enter percentage] in [year]. Of the total MSW generated annually, [enter percentage] finds its way in the disposal site whilst the city recovery rate stands at [enter percentage]. [enter value] tons of MSW remain uncollected.

WaCT Flow Chart

For more info and if interested in WaCT application contact the Waste Wise Cities Team at WasteWiseCities@un.org

The level of control of our waste management facilities is an important parameter to evaluate the quality of our MSW system. In [year], [enter percentage] of our MSW was managed in controlled facilities.
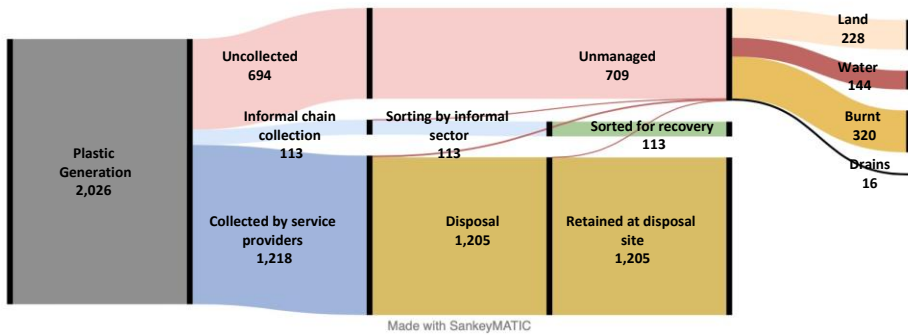
Plastic waste represents an important fraction of the MSW with a contribution of [enter percentage]. Other important waste streams in the MSW are [enter the type of waste] ([enter percentage], followed by [enter the type of waste] ([enter percentage]) and [enter the type of waste] ([enter percentage]). The results of the WFD revealed that [enter percentage] of total MSW ends up in the environment. The plastic waste leakage is estimated at [enter tons] annually, of which [enter percentage] remains

indefinitely on land, [enter percentage] is openly burnt, [enter percentage] ends up in storm drains and [enter percentage] enters our water systems.

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> **Commented [UNH6]:** Replace with your city's Plastic Waste Flow Diagramm

Plastic leakage is influenced by infrastructure and behavior practices in the different stages, from generation and collection to sorting, transportation and disposal. The most signification leakage influencers are represented by [enter the most significant leakage influencers here / (e.g. uncollected waste, formal collection, informal collection, disposal site].

[Option to put summary of WABI results here]

Focus Areas and Measures

I. Plastic Waste Prevention

Waste prevention depends fundamentally on changes in the attitudes and behavior of our citizens and businesses, and on a transformative shift in industrial processes and product design. Waste prevention refers to practical actions that reduce the quantity of materials prior to materials and products becoming wastes. Employing waste prevention strategies can effectively reduce the volume of waste that must be managed, placing less strain on local waste collection and management programs.

Waste prevention includes
- Avoidance – eliminating the need for a product or material;
- Source Reduction – eliminating waste and pollution at source through process changes; and
- Direct Re-use/Prolonging Use – extending product life, serving as a diversion of waste flows.

Changing attitudes and behaviors requires a comprehensive strategy that educates, motivates and mandates, when necessary.

The City will: [Replace commitments described below with your city's commitments]

1. [Educate through public awareness efforts to encourage behavioral change. Creating awareness among the general public as well as the business community is fundamental to changing behavior and attitudes about the way people consume resources and generate waste. Sharing practical information and guiding tools about how individuals or companies can prevent and reduce waste in their daily lives, is a critical first step]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

2. [Motivate through measures that incentivize change or disincentivize status-quo. Motivating strategies often provoke actions by incentivizing people to make behavioral changes that support waste prevention. The strongest stimulus is the polluter pays principle, which places all costs for the environmentally sound management of generated waste onto the waste generator. Financial instruments that include fees, management prices, or appropriate schemes of Extended Producer Responsibility (EPR) are possible mechanisms.]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

3. [Mandate change through regulatory action. Regulatory strategies addressing waste prevention can take many forms such as enforcing bans on the use of single-use plastics (strict avoidance) as well as imposing limits on the volume of waste generated (source reduction) by certain industrial activities. With industry at the helm of making design and production decisions that affect all other product life-cycle stages, industry is often a target for regulatory strategies. Sustainable design requirements, producer responsibility initiatives, environmental controls through permitting and take-back mandates are all examples of regulatory strategies]

Baseline: [enter value] [enter year].

Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

II. Plastic Waste Collection

Waste collection rates are ultimately dependent on local factors – governance, geography, population density, consumption patterns, public awareness, amongst others. Separation at source is a pre-requisite for a waste recovery system designed to attract high volumes of plastic waste. Source separation reduces MSW cross-contamination and reduces the pressure on the downstream operations in the value chain. Combined with effective behavior change communications and manual and/or mechanical sorting, it contributes directly to obtaining high quality secondary materials for recycling processes.

The City will: [Replace commitments described below with your city's commitments]

1. [Introduce separation at source for both households and commercial establishments. The waste generated will be separated into three different categories: organic waste, dry recyclables, other. This will go hand-in-hand with a new collection schedule, that ensures the separate collection of the pre-sorted waste. The implementation will be done in an inclusive manner including all relevant stakeholders, e.g. the informal sector. Ideally, only the "other" fraction will be transported to the disposal site, whereas efforts will be made to recover the rest of the waste. The introduction of source separation will be accompanied by public awareness raising campaigns.]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

2. [Extend collection coverage to unserved areas of the city by working with the relevant communities to identify feasible and cost-efficient solutions]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

3. [Reduce plastic leakage during collection of MSW waste, by providing closed containers for pre-collection, and making the transport of waste mandatory in closed vehicles.]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

III. Plastic Reuse and Recycling

While plastic waste represents a significant economic and environmental cost borne by cities and society as a whole, plastic waste is also a largely untapped opportunity. Environmentally sound waste management is an opportunity to avoid the detrimental impacts associated with plastic waste in nature. It's also an opportunity to recover valuable resources that can add environmental, economic and social benefits. Advanced waste management processes can reduce costs, create local jobs, protect public health and ecosystem vitality.

Waste management is a cooperative process that requires multi-stakeholder engagement - the City Government, businesses, NGOs, the informal sector, and individuals in the community all have an important responsibility to ensure environmentally sound waste management.

Increasing plastic collection rates is first and foremost, in order to recapture valuable materials for reuse and recycling. Developing local recycling infrastructure and second use markets can extract value from materials that are often discarded.

The City will: [Replace commitments described below with your city's commitments]

1. [Invest in recycling infrastructure in partnership with business and industry who see economic opportunities in the city's plastic waste stream. Collaborate with private operators to enhance the recovery rate of plastic waste. This includes technical and financial support to private operators from waste collection, transportation, sorting and recycling of plastic waste. Competitive processes will be established to stimulate competition between the private sector representatives to maximize efficiency in the sector]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

2. [Develop a local reuse system for packaging and food take-out. Work with restaurants and food deliveries to introduce city-wide reusable food take-out containers to replace single-use containers and develop a functionable exchange mode. Support "packaging-free" shops, markets and supermarkets and encourage the use of refill stations.]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

3. [Invest in modern waste management infrastructure and transport equipment. Increase the number of plastic waste sorting bins across the city, as well as sorting and transfer stations, by including the informal sector.]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

IV. Other focus areas and measures

> **Commented [UNH7]:** e.g. Landfill Management

Integrated sustainable waste management considers both the physical components (collection, disposal and recycling) and the governance aspects (inclusivity of users and service providers; financial sustainability; coherent, sound institutions)[1]. The improvements around plastic waste prevention, collection, reuse and recycling, will be complemented by additional measures to bolster the MSW system in [City].

The City will: [Replace commitments described below with your city's commitments]

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[1] Integrated sustainable waste management in developing countries (David C. Wilson, Costas A. Velis, Ljiljana Rodic).

1. [Provide trainings and professional development opportunities to local municipal staff to enhance their capacity to perform their duty functions]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

2. [Improve the conditions of waste disposal by providing sufficient financial resource to procure equipment, PPEs to landfill staff and to sustain the operation of the landfill site. These actions will improve the control level of the landfill site and mitigate the adverse impacts on the environment including plastic leakages]

Baseline: [enter value] [enter year].
Target: [enter value target 1] [enter year], [enter value target 2] [enter year], [enter value target 3] [enter year].

Monitoring framework

Monitoring local waste streams is critical to developing sound city strategies. Gathering data on the types and volumes of waste that are generated can help [City Government] to design fitting waste management programs, allocate resources to ensure appropriate collection infrastructure and scheduling, establish short and long-term targets for collection and diversion, and adapt as consumption patterns evolve. With good data, [City government] can better assess relevant technologies, applicable best practices given the local context, and identify strategic partners for service provisions.

The monitoring framework is built around a robust and practical Monitoring and Evaluation (M&E) plan. The plan provides a system for generation, collection and analysis of key data related to each measure of the action plan. It can be used as a dynamic tool that factors in continuous input from local stakeholders and that actively incorporates feedback into the redesign of interventions. The plan is underpinned by indicators that define what to measure, when and how. Results can be measured against performance indicators through routine and periodic assessments and surveys. The results of the monitoring activities will be used to evaluate the relevance, effectiveness and efficiency of the specific measures, using a mixture of quantitative and qualitative methods.

Measure	Indicators	Frequency	Baseline	Target	Means of verification
I Plastic Waste Prevention					
[measure]	[indicators]	[Semestrial]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	field surveys]
[measure]	[indicators]	[Monthly]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]
[measure]	[indicators]	[Semestrial]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]
II Plastic Waste Collection					
[measure]	[indicators]	[Semestrial]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]
[measure]	[indicators]	[Annual]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]
[measure]	[indicators]	[Semestrial]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]
III Plastic Reuse and Recycling					
[measure]	[indicators]	[Semestrial]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]
[measure]	[indicators]	[Semestrial]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]
[measure]	[indicators]	[Monthly]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]

IV Other focus areas and measures					
[measure]	[indicators]	[Annual]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]
[measure]	[indicators]	[Semestrial]	[0 (2021)]	[30% (2022), 40% (2023), 50% (2024)]	[field surveys]

Plastic Smart Cities Pilot Case Study

A pilot can (1) provide data that can be used to justify funding and support; (2) brings key stakeholders together to build and share knowledge in the pilot area; (3) helps the City determine the efficacy of interventions under certain conditions; and (4) allows for the refinement of interventions for city-wide implementation.

The City must take great care in selecting a pilot site that will lead to the desired goals and outcomes on plastic. Pilot sites can include parks, harbors, beachfronts, waterways, neighborhoods, etc.

The City Government must come to a consensus on what exactly is being piloted (e.g., waste collection process, community engagement campaign, etc.), the purpose of the pilot site, the desired outcome, the time frame for the pilot process, and how the pilot aligns with other City initiatives and activities.

Key Considerations

Prioritization
What are we piloting?
What is the purpose of the pilot site?
What are the goals or desired outcomes?
What is the anticipated timeline for implementation?
How do pilot site activities align with other initiatives or activities?
What stakeholders should be involved in the pilot?

Evaluation
What are the baseline measures?
How will the pilot process be evaluated?
What will happen to pilot sites at the end of the pilot term?
What actions will be taken if the pilot fails to meet the requirements or expectations?

Available Resources
Who will oversee the pilot process?
What resources are available for the pilot site?
What technical assistance or professional development is available to pilot sites?

Site Selection Process
What is the preferred criteria for site selection?
What sites meet the site selection criteria?
What are the benefits and potential issues for shortlisted pilot sites?