

# GEF-8 REQUEST FOR CEO ENDORSEMENT/APPROVAL

## TABLE OF CONTENTS

<b>GENERAL PROJECT INFORMATION .....</b>	<b>3</b>
Project Summary .....	4
Project Description Overview .....	5
<b>PROJECT OUTLINE .....</b>	<b>10</b>
<b>A. PROJECT RATIONALE .....</b>	<b>10</b>
<b>B. PROJECT DESCRIPTION .....</b>	<b>43</b>
Institutional Arrangement and Coordination with Ongoing Initiatives and Project.....	103
Core Indicators .....	120
Key Risks .....	125
<b>C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES .....</b>	<b>127</b>
<b>D. POLICY REQUIREMENTS .....</b>	<b>129</b>
Gender Equality and Women's Empowerment.....	129
Stakeholder Engagement .....	129
Private Sector .....	129
Environmental and Social Safeguards .....	130
<b>E. OTHER REQUIREMENTS .....</b>	<b>130</b>
Knowledge management .....	130
Socio-economic Benefits .....	130
<b>ANNEX A: FINANCING TABLES .....</b>	<b>130</b>
GEF Financing Table .....	130
Project Preparation Grant (PPG) .....	131
Sources of Funds for Country Star Allocation.....	132
Focal Area Elements .....	132
Confirmed Co-financing for the project, by name and type.....	133
<b>ANNEX B: ENDORSEMENTS.....</b>	<b>135</b>
Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):.....	135
<b>ANNEX C: PROJECT RESULTS FRAMEWORK .....</b>	<b>136</b>
<b>ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG) .....</b>	<b>152</b>
<b>ANNEX E: PROJECT MAP AND COORDINATES .....</b>	<b>152</b>
<b>ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING .....</b>	<b>153</b>
<b>ANNEX G: BUDGET TABLE .....</b>	<b>154</b>
<b>ANNEX I: RESPONSES TO PROJECT REVIEWS .....</b>	<b>165</b>

## General Project Information

### Project Title

Shifting to Zero Waste Against Pollution (SWAP) Initiative

Region	GEF Project ID
Global	11211
Country(ies)	Type of Project
Global	FSP
Sierra Leone	
Tunisia	
Türkiye	
Uruguay	
China	
GEF Agency(ies):	GEF Agency Project ID
UNDP	9654
Project Executing Entity(s)	Project Executing Type
UNDP (Global) – Direct Implementation Modality; Foreign Environmental Cooperation Center – FECO (China) – National Implementation Modality (NIM); Environmental Protection Agency – EPA (Sierra Leone) - Country Office Support to National Implementation Modality; Ministry of Environment (Tunisia) - Country Office Support to National Implementation Modality; Ministry of Environment Urbanization and Climate Change – MoUECC (Türkiye) - Country Office Support to National Implementation Modality; Ministry of Environment (Uruguay) - Country Office Support to National Implementation Modality.	Government
Ministry of Environment of Uruguay	Government
Ministry of Environment of Tunisia	Government
Environment Protection Agency of Sierra Leone	Government
Avfall Sverige	Government
Ministry of Environment, Urbanisation and Climate Change of Türkiye	Others
UNDP (Global) – Direct Implementation Modality	Government
Foreign Environmental Cooperation Center – FECO (China) – National Implementation Modality (NIM)	GEF Agency
	Government
GEF Focal Area (s)	Submission Date
Chemicals and Waste	6/27/2024

Type of Trust Fund	Project Duration (Months)
GET	60
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
28,035,000.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)
2,523,150.00	0.00
Total GEF Financing: (a+b+c+d)	Total Co-financing
30,558,150.00	294,489,320.00
PPG Amount: (e)	PPG Agency Fee(s): (f)
300,000.00	27,000.00
Total GEF Resources: (a+b+c+d+e+f)	
30,885,150.00	
Project Tags	
CBIT: No NGI: No SGP: No Innovation: No	
Project Sector (CCM Only)	

### Taxonomy

Focal Areas, Sustainable Development Goals, Sustainable Urban Systems and Transport, Climate Change Mitigation, Climate Change, Chemicals and Waste, Pesticides, Best Available Technology / Best Environmental Practices, Open Burning, Waste Management, eWaste, Industrial Waste, Hazardous Waste Management, Green Chemistry, Persistent Organic Pollutants, Unintentional Persistent Organic Pollutants, Polychlorinated Biphenyls, New Persistent Organic Pollutants, Disposal, Plastics, Industrial Emissions, Emissions, Mercury, Capacity, Knowledge and Research, Targeted Research, Innovation, Knowledge Exchange, South-South, Field Visit, Twinning, Conference, Capacity Development, Enabling Activities, Knowledge Generation, Workshop, Training, Course, Learning, Adaptive management, Theory of change, Indicators to measure change, Influencing models, Transform policy and regulatory environments, Demonstrate innovative approach, Strengthen institutional capacity and decision-making, Deploy innovative financial instruments, Stakeholders, Type of Engagement, Information Dissemination, Participation, Partnership, Consultation, Indigenous Peoples, Beneficiaries, Communications, Behavior change, Education, Awareness Raising, Public Campaigns, Private Sector, Financial intermediaries and market facilitators, Large corporations, SMEs, Individuals/Entrepreneurs, Local Communities, Civil Society, Academia, Trade Unions and Workers Unions, Community Based Organization, Non-Governmental Organization, Gender Equality, Gender results areas, Knowledge Generation and Exchange, Access to benefits and services, Participation and leadership, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups

### Rio Markers

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Significant Objective 1	No Contribution 0	No Contribution 0	No Contribution 0

### Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved

(approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. (max. 250 words, approximately 1/2 page)

The proposed Shifting to Zero Waste Against Pollution (SWAP) Initiative aims to reduce chemical pollution in the value chain, and improve resource efficiency, by supporting pilot cities in emerging economies and Least Developed Countries towards a zero-waste vision in line with green chemistry, circular economy, and waste hierarchy principles for sustainable production and consumption. The comprehensive approach of the Initiative will be implemented in five cities: Freetown (Sierra Leone), Kocaeli (Türkiye), Montevideo (Uruguay), Tunis (Tunisia) and Tianjin (China).

This approach is further enhanced with the assistance of a Global Component which will coordinate participating countries/cities and enhance partnerships with key national and international stakeholders to pilot and scale up best practices for a zero waste society.

The Initiative foresees interventions to:

- develop and implement frameworks and action plans for integrated waste management towards zero-waste city through building enabling conditions and coherent policies for circularity, improving governance structure, advancing integrated planning and programming and green procurement.
- promote sustainable investment by exploring special and diverse legal, fiscal and financial steering instruments such as EPR schemes, building public and private partnerships, fostering circular business models and cost recovery to address the financial challenges for the transition to a zero-waste city.
- Enhance sustainable production and consumption by encouraging the private sectors adopting BAT/BEP to eliminate harmful chemicals in products, promoting eco-design, sustainable consumption and services, building ecosystem from upstream to downstream for circularity of materials.
- Make information and knowledge accessible for raising awareness to every key stakeholder in the key value chains including producers, retailers, consumers, citizens, waste workers through a whole-of-society approach.
- Build global networks and partnerships on zero waste, provide policy and technical advice through its clearing house, facilitate knowledge sharing, and raise awareness across countries and regions.

Through its key interventions the Initiative will positively contribute to decouple economic activities from waste generation, increase resource efficiency, prevent pollutions of the solid wastes and harmful chemicals to land, water, and air, and generate significant and sustainable global environment benefits for the reduction of hazardous chemicals, greenhouse gas emissions, and protection of human health and ecosystem. The SWAP Initiative will be very closely related and seeking synergy with the following GEF-8 Integrated Programmes: Sustainable Cities, Supply Chain and Circular Solutions to Plastic Pollution.

The SWAP Project will directly benefit 4,902,665 people (2,476,271 women; 2,426,394 men) and will evidence results in the following Global Environmental Benefits: 7,052,000 metric tons of direct CO<sub>2</sub>e emissions avoided and 2,954,262 of indirect CO<sub>2</sub>e emissions avoided, 8,089.918 metric tons of Persistent Organic Pollutants (POPs) removed/disposed, 31.557 metric tons of mercury reduced, 1,310,558.988 metric tons of POPs/Mercury containing materials and products directly avoided and 1,042,000 metric tons of plastic waste avoided; 457 gTEQ avoided for a 10-year period.

Finally, it will influence from a global perspective, by providing useful insights into practical and effective solutions to inspire, replicate and scale-up in different urban contexts, leveraging transformative change in existing structures towards the attainment of the Sustainable Development Goals for a healthy planet and healthy people. This in turn will positively impact to combat the Triple Planetary Crisis.

## Project Description Overview

### Project Objective

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and

other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. (max. 250 words, approximately 1/2 page)

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Enable conditions and coherent policies to promote integrated planning and programming at city level towards a long-term vision of zero waste and zero pollution.

Explore special and diverse legal, fiscal and financial steering instruments to promote sustainable investment and cost recovery to address the financial challenges for the transition to a zero-waste city.

Enhance sustainable production and consumption by encouraging the private sectors adopting BAT/BEP to eliminate harmful chemicals in products, promoting eco-design, sustainable consumption and services, building ecosystem from upstream to downstream for circularity of materials.

Make information and knowledge accessible for raising awareness to every key stakeholder in the key value chains including producers, retailers, consumers, citizens, waste workers through a whole-of-society approach.

Build global networks and partnerships on zero waste, provide policy and technical advice through its clearing house, facilitate knowledge sharing, and raise awareness across countries and regions.

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Finally, it will influence from a global perspective, by providing useful insights into practical and effective solutions to inspire, replicate and scale-up in different urban contexts, leveraging transformative change in existing structures

towards the attainment of the Sustainable Development Goals for a healthy planet and healthy people. This in turn will positively impact to combat the Triple Planetary Crisis.

## Project Components

### Component 1. Integrated planning and programming

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
3,122,191.00	32,796,562.00

Outcome:

#### A. Zero waste framework and action plan implemented by municipalities.

Output:

- A1. Waste Management Plan, Zero Waste Strategy and Governance Structure established.
- A2. Capacity built in cities/municipalities/institutions related to the life cycle management of chemicals and wastes.
- A3. Green procurement guideline developed and implemented.
- A4. Policy, legal and regulatory framework to support waste management and uptake of circular economy principles improved.

### Component 2. Financing instruments

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)
5,163,735.00	53,900,243.00

Outcome:

#### B. Sustainable Investment and Financing instruments promoted.

Output:

- Output B.1. Financial and Fiscal Incentives for the transition to a zero-waste city assessed.
- Output B.2. Investment plan and Public-Private Partnerships (PPP) to cover the city waste management developed.
- Output B.3. Green finance mechanisms established for supporting green production and consumption, and circular business.
- Output B.4. EPR schemes developed in key sectors with associated capacity building of stakeholder. Market for recyclables created.
- Output B.5. Replication and Scale up Strategy, *with associated market-oriented financial mechanisms*.

### Component 3. Sustainable Production and Consumption and Material Management.

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)
11,622,335.00	122,163,834.00

Outcome:

### C. Enhanced sustainable production and consumption through clean production certification and eco-labelling of sustainable products and services

Output:

Output C.1. "hotspot" sectors of unsustainable consumption and production assessed and associated circular economy opportunities identified.

Output C.2. Capacity built in industries, designers, and producers based on green chemistry and circularity principles, and demonstration of cleaner production to design/phase out chemicals of concern and waste.

Output C.3. Feasibility studies and piloting activities carried out to increase recycling and reuse of materials in key value chains. Circular business models developed.

Output C.4 Demonstration activities on innovative tools to foster sustainable consumption in public and private sectors, and consumers.

## Component 4. Training, education, advocacy, and evaluation at city and national level

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
2,058,314.00	21,621,241.00

Outcome:

### D. Lessons learned captured and disseminated, and awareness raised.

Output:

Output D.1. Communication strategy implemented and awareness raised to encourage behavior change.

Output D.2. Technical Assessment of informal sector integration and formalization.

Output D.3. Experiences exchanged at city networks for scale-up of good practices in other cities of the country and region.

## Component 5. Coordination, communication, technical assistance at global level

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
2,408,500.00	25,299,716.00

Outcome:

### E. Clearing house on Zero Waste Operated.

Output:

Output E1: Technical and finance advice to the municipalities for the development and implementation of zero waste strategy provided.

Output E2: Global Zero Waste City Finance Platform and Zero Waste Partnerships strengthened

## M&E

Component Type	Trust Fund
Technical Assistance	GET



GEF Project Financing (\$)	Co-financing (\$)
1,414,787.00	15,124,020.00

Outcome:

M&E and adaptive management applied to assess activity performance and GEB impact.

Output:

Output F.1. M&E and adaptive management applied to assess activity performance and GEB impact.

## Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
Component 1. Integrated planning and programming	3,122,191.00	32,796,562.00
Component 2. Financing instruments	5,163,735.00	53,900,243.00
Component 3. Sustainable Production and Consumption and Material Management.	11,622,335.00	122,163,834.00
Component 4. Training, education, advocacy, and evaluation at city and national level	2,058,314.00	21,621,241.00
Component 5. Coordination, communication, technical assistance at global level	2,408,500.00	25,299,716.00
M&E	1,414,787.00	15,124,020.00
<b>Subtotal</b>	<b>25,789,862.00</b>	<b>270,905,616.00</b>
Project Management Cost	2,245,138.00	23,583,704.00
<b>Total Project Cost (\$)</b>	<b>28,035,000.00</b>	<b>294,489,320.00</b>

Please provide Justification

Justification for budget increase of the global component

It has appeared during the project preparation process that the scope and potential benefits if the global components could be further increased through a higher budget of the global components. Two areas of work in particular have received suggestions and focused which had not been fully assessed or included during the PIF preparation: sustainable procurement and sustainable finance.

As to the sustainable procurement, it is evident that the current approach through a supply chain transformation at the city level would be powerfully enhanced by a more robust and longer-term support to each of the municipalities' procurement offices, aiming towards further promoting the inclusion of circular economy, zero waste to reduce pollutant emissions. This requires technical and policy support and UNDP has engaged discussions with partners focusing on this type of approaches and transformations, particularly the international CSO ICLEI, which engages with local governments sustainability and has developed e-courses and other networks promoting sustainability of municipalities' purchases through new procurement practices.

The other main dimension that has been further developed prior to the CEO Endorsement has been the synergy of work under the financial component with engagement towards the broader approach of sustainable finance. This includes ensuring synergy with Integrated Local Financing Frameworks, which can help mainstream zero waste and pollutant reduction approaches within the transformation of the financial systems at city level towards SDGs. A further effort at reviewing the current status and situation of sustainable financing environment in each of the 5 cities will help determine key entry points and impactful financial instruments when securing the replication and maximized impact of the SWAP initiative interventions.

## PROJECT OUTLINE

### A. PROJECT RATIONALE

Describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

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## GLOBAL OVERVIEW

Waste management has been a longstanding public concern due to its impact on human health, the environment and socio-economic development. Currently the world is on a path where waste generation will drastically outpace population growth by more than double by 2050. The linear economy paradigm has resulted in increasing consumption of products made of virgin material and low level of recycling or reuse of important resources. According to the latest estimates from the World Bank in 2018<sup>1</sup>, waste generation will increase from 2.01 billion tonnes in 2016 to 3.40 billion tonnes in 2050. In addition, it is estimated that in 2016 1.6 billion tonnes of carbon dioxide (CO<sub>2</sub>) equivalent greenhouse gas (GHG) emissions were generated from solid waste treatment and disposal. GHG emissions result from inadequate waste collection, uncontrolled dumping, and burning of waste. This represents about 5% of global emissions. Solid waste-related emissions are anticipated to increase to 2.6 billion tonnes of CO<sub>2</sub>-equivalent per year by 2050 if no improvements are made in the sector<sup>2</sup>. Furthermore, the uncontrolled burning of waste creates particulate and persistent organic pollutant emissions that are highly damaging locally and globally.

City waste generation per capita is strongly correlated with national income. As economies continue to grow rapidly in low- and middle-income countries (due to increasing population and improvements in living standards), it can be expected that per capita waste generation will continue to increase steadily, and waste composition change significantly. This represents a greater challenge for those cities which do not have

adequate systems in place to manage these transformations. The impacts of poor waste management are dire and fall disproportionately on the poor and most vulnerable segments of societies, who are often unserved or have little influence on the waste being disposed of formally or informally near their homes. Poorly managed waste is also contaminating the world's oceans, clogging drains and causing flooding, transmitting diseases via breeding of vectors, increasing respiratory problems through airborne particles from burning of waste, harming animals that consume waste unknowingly, and affecting economic development, such as through diminished tourism.

It can be estimated that more than two billion people still lack access to waste collection<sup>3</sup> and three billion people do not have access to controlled waste recovery or disposal facilities. Globally, at least 33% of this waste is mismanaged through open dumping or burning. About 37% of waste is disposed of in some type of landfill, 33% is openly dumped, 19% undergoes materials recovery through recycling and composting, and 11% is treated through modern incineration. Intentional waste burning may be often the only household or community level waste management method available, and it can be intentional practice at landfills or illegal dump sites to create space<sup>4</sup>. Waste burning also happens intentionally along the informal recycling chain, for instance to get rid of the mixed low-value or non-recyclable materials or during the informal recycling of e-waste. Spontaneous burning can also occur in landfills due to ignition by methane from decomposing organic waste. Open waste burning practices are responsible for the emission of persistent harmful pollutants such as polychlorinated dibenzo dioxins (PCDDs) and polychlorinated dibenzo furans (PCDFs).

When analysing waste composition at global level<sup>5</sup>, figures show that 78% of global waste corresponds to the following categories: food and green waste (44%) and dry recyclables (38%). Dry recyclables can be disaggregated in paper and cardboard (17%), plastic (12%), glass (5%) and metal (4%). Waste composition varies considerably by income level. Moreover, Municipal Solid Waste (MSW) now increasingly contains relatively small amounts of hazardous substances which prevented recycling of the materials. Often known as household hazardous waste (HHW), typical sources may include mineral oils such as motor oil; asbestos products such as roofing and heating blankets; batteries; waste electrical and electronic equipment (WEEE or e-waste); paints and varnishes; wood preservatives; cleaning agents such as disinfectants; solvents such as nail varnish; pesticides such as rat poison; cosmetics such as hair dyes; photo lab chemicals such as developer; and unused or expired household medicine<sup>6</sup>. Statistics are unavailable on the percentage of household hazardous waste in MSW on a global basis. However, estimates suggest a percentage of household hazardous waste in MSW of less than 1%, but up to 5% if e-waste is included<sup>7</sup>.

Global food loss and waste (FLW) accounts for a significant proportion of food and green waste. The latest Food and Agriculture Organization (FAO) study conducted in 2011<sup>8</sup>, estimated that that FLW is near 1.3 billion tonnes per year (30% of all food globally). The causes of FLW vary across the world and depend on specific local conditions. Improving coordination among actors along the different stages of the supply chain could address some of the FLW issues globally. In addition to decreasing FLW along the supply chain, discarded food could also be managed productively for composting and energy recovery.

In 2016, plastic waste represented 12% of all MSW. Recent updated figures from OECD show that plastic waste increased to 353.3 million tonnes in 2019<sup>9</sup> and is expected to reach 1,231 million tonnes in 2060 in the absence of bold new policies. The growth is expected to be the fastest in developing and emerging countries in Africa and Asia. The report also projects that plastic leakage to the environment will double to 44 million tonnes a year. It is estimated that about 80% of ocean plastic comes from poorly operating MSW management systems, due to practices such as open dumping, open burning, and disposal in waterways. Waste dumping and the open burning of plastic generate POP emissions, contribute to climate change and lead to impacts on health, such as respiratory illnesses and the spread of infectious and vector-borne diseases (e.g. malaria, dengue). Even when plastic waste is collected, many countries lack capacity to process the waste. Most

plastics that are recycled are shredded and reprocessed into lower-value applications; only 2% are recycled into products of the same or similar quality<sup>10</sup>.

E-waste is one of the fastest growing domestic waste streams, fuelled mainly by higher consumption rates of electric and electronic equipment, short life cycles, and few options for repair. In 2019 the large majority of e-waste generated (82.6%) was most likely not formally collected and not managed in an environmentally sound manner<sup>11</sup>. This waste stream is likely dumped, traded, or recycled inappropriately by the informal sector. Hazardous chemicals used in the manufacturing process of e-products (fluorinated greenhouse gases (GHGs), flame retardants, mercury and lead, among others) impact workers' health and lead to a trail of toxicity. In particular, the rudimentary e-waste recycling practices used in informal settings lead to the release of these chemicals including dioxins and furans, which in turn impact human health and cause substantial air, water and soil pollution. At the same time, such recycling practices result in the loss of valuable resources.

Other common city waste streams include industrial waste, agricultural waste, construction and demolition waste, hazardous chemical waste, and healthcare waste. Some waste streams, such as industrial waste, are generated in much higher quantities than municipal solid waste. For the countries with available industrial waste generation data, the trend shows that globally, industrial waste generation is almost 18 times greater than municipal solid waste<sup>12</sup>. The generation of industrial waste rises significantly as income levels increase. Global agricultural waste production is more than four and a half times that of municipal solid waste<sup>13</sup>. Construction and demolition waste may compete with municipal solid waste for disposal space in landfills<sup>14</sup>. Healthcare waste is another waste stream which has become more important especially due to the impact of the recent global pandemic. In general, 80% of healthcare waste is similar to household waste while 20% of it is hazardous waste<sup>15</sup> such as sharps, materials contaminated with bodily fluids, protective clothing, body parts, chemicals and pharmaceuticals, medical devices and radioactive materials. The [latest available data](#) (from 2019) indicate that 1 in 3 healthcare facilities<sup>16</sup> globally do not safely manage healthcare waste. The COVID-19 pandemic has led to large increases in healthcare waste, straining under resourced healthcare facilities and exacerbating environmental impacts from solid waste. Consequently, the volume of this waste stream has increased by up to 40%<sup>17</sup>, increasing also hazardous waste production.

If managed and disposed of properly, these other waste streams are typically treated in specialized facilities, including chemical processing plants, incinerators, autoclaves, and disassembly centers, respectively. Unfortunately, when cities do not have a strong municipal solid waste management systems and infrastructure, frequently these waste streams are subjected to similar undesirable practices, increasing the risks poses to health and the environment.

Within city waste management, informal waste recycling plays a key role being a livelihood for the urban poor in low- and middle-income countries. About 1% of the urban population, or more than 15 million people, earn their living informally in the waste sector by collecting, sorting, and selling materials<sup>18</sup>. While in some countries, waste pickers provide the only form of solid waste collection, these people are often a vulnerable demographic and are typically women, children, the elderly, the unemployed, or migrants. They generally work in unhealthy conditions, lack social security or health insurance, are subject to fluctuations in the price of recyclable materials, lack educational and training opportunities, and face strong social stigma. When properly supported and organized, informal recycling can create employment, improve local industrial competitiveness, reduce poverty, and reduce municipal spending on solid waste management, pollution prevention, healthcare, and social services.

## WASTE MANAGEMENT REGULATION

While municipal solid waste management is typically a locally operated service supported by local governments (such as cities, prefectures, and states) which are responsible for creating more specific local

regulations, national governments are typically responsible for developing laws and regulations that establish guidelines, national performance targets, and operational and environmental standards. Both national and local regulations are foundational aspects for planning and sustainable waste management. Planning allows all stakeholders, including different government agencies, citizens, associations, and the private sector, to be coordinated and allows investments to be made in an efficient and targeted manner. Enforcement of these laws is a common challenge mainly due to limited financing, low staff technical capacity, and ambiguity in the policy's guidelines.

## **INVESTMENT AND FINANCING**

Waste management is an expensive service and requires substantial investments in physical infrastructure and long-term operations. Despite the substantial share of solid waste management expenditures in municipal budgets, low- and middle-income countries often face budget shortfalls for waste services and thus reduction of costs and recovery of fees is often integral to the development of the sector. Municipalities providing waste management services generally experience two broad categories of expenditures: (1) capital expenditures, which are typically associated with infrastructure investments; and (2) operational expenditures, often associated with service provision and equipment maintenance. Planning around these two types of expenditures generally differs. The largest financial challenge for cities is usually the coverage of operational expenditures for labor, fuel, and the servicing of equipment.

Operating costs are almost always substantially higher than capital costs for investments and are often the most challenging to sustain. Even when capital costs are accounted for (often funded separately, for example, with national government subsidies), operational expenditures can easily account for 70% or more of total required budgets. Across collection and disposal operations, waste collection typically accounts for 60–70% of total costs<sup>19</sup>. However, disposal costs have risen with more advanced sorting and materials recovery choices.

Financing waste management systems is often one of the greatest concerns for municipalities. Cost recovery is essential to avoid reliance on subsidies from own-source revenues<sup>20</sup> or from national or external sources. Waste management investment costs and operational costs are typically financed differently.

Early steps to improve solid waste management focus on both extending collection coverage and phasing out uncontrolled disposal, while subsequent steps gradually increase the environmental standards of treatment and disposal. This inevitably increases the total costs. By definition, uncontrolled waste is not 'managed' and thus not measured, making it difficult to estimate either the size of the problem or the scale of the associated costs. However, evidence suggests that in a middle- or low-income city, the costs to society and the economy are perhaps 5-10 times what sound solid waste management (SWM) would cost per capita<sup>21</sup>, being noticeably cheaper to manage waste now in an environmentally sound manner than to clean up in future years.

## **ZERO WASTE APPROACH AND CIRCULARITY**

The current global waste management context and its associated negative effects require interventions, and increased efficiency and sustainability of investments for its integrated improvement. It is essential to move from a linear take-make-dispose system, where waste management is a "last resort" solution, to a circular economy system that focuses on managing resources sustainably and ensures products and materials are used as long as possible and kept at their highest possible value, preventing the waste generation as much as possible. The zero-waste concept emerges in view of the need for shifting from unsustainable linear patterns to circular economy. The proposed approach to support countries and cities in achieving their Zero Waste targets (the lowest possible generation of industrial and residual waste that ultimately requires incineration, landfilling or dumping), as part of realizing a Circular Economy, is based on the waste management hierarchy.



As the first step in the waste hierarchy, waste prevention should be the top priority, which has substantial benefits as it reduces carbon emissions and the use of natural resources and mitigates impacts on human health and the environment. Preventing waste means both reducing waste volumes and reducing the number of hazardous substances in the waste. The municipalities play an important role in this work together with manufacturers and producers who must also consider prevention when designing their products. The governments should support the design of appropriate policies and regulations. Waste prevention is achieved through more sustainable production and consumption practices. In that sense, a transformation will be needed in the way goods are produced and used in the economy.

Currently, the presence of hazardous substances in products, whether intentional or unintentional, including through recycling, thus poses challenges to circularity and the implementation of the waste hierarchy, which emphasizes sources reduction, reuse, and recycling. A coherent approach to the sound management of chemicals and waste in a circularity context implies that undesired substances are not used in consumer products, and that potential cross-contamination and related exposures or releases to the environment are avoided. A challenge for all actors engaged in the supply chain is therefore to effectively address potential trade-offs between increasing recycling rates on the one hand, and consumer and environmental exposure associated with cross-contaminated products on the other. At the same time, these considerations create a driver and opportunity for the chemical and engineering sciences to provide the basis for innovative products that can be reused and recycled without sustainability trade-offs.

The phase-out of chemicals of concern should go beyond replacing chemicals with safer alternatives and improving the management of chemical and waste stockpiles. Although such interventions are important in the short term, the focus should be redirected towards the redesign of products, production processes, services, and consumption, so that none of these requires chemicals of concern, and pollution and waste are designed out entirely<sup>22</sup>. The supply chains that stand to benefit the most from greening efforts to achieve circularity include those for agriculture, textiles, e-products, plastics, construction, secondary metals, and waste management since they are resource-intensive and use a large variety of chemicals of concern.

Putting in place sustainable production and consumption patterns in combination with waste prevention and material/product re-use, repair, recycling, recovery, and sound waste disposal practices, can bring significant benefits to human and environmental health, including preventing future build-up of hazardous chemicals and waste in the environment as well as climate change mitigation. Combined such interventions would contribute to a zero-waste society which is an essential part of a circular economy and pollution- free environment.

## COVID-19

Recently, the world has been going through a global pandemic which undoubtedly posed another major waste management challenge for the cities. At the onset of the COVID-19 pandemic and with little warning, municipalities suddenly faced: massive upticks in daily waste volumes combined with curtailed garbage collection and cutbacks in recycling. While workplace waste production fell at the pandemic's height, household waste rose to a degree that offset the decrease in commercial waste. With the exponential increase in the number of ill patients needing treatment, medical waste volumes surged as well. Regions with poor waste management infrastructure were least able to handle the rapid influx of additional waste, which in many cases overwhelmed existing dump sites or landfills, amplifying negative environmental and social impacts. Additionally, increased generation of municipal waste has made it financially and physically challenging for municipalities to cope. Increased healthcare and social protection costs related to COVID-19 have strained municipal budgets at a time when municipal revenues are also substantially impacted.

The experience of COVID-19 proved that adaptability to such pandemics has become a necessity in waste management systems and requires an accurate understanding of the challenges that have been arising. A Zero waste vision, in line with waste management hierarchy and circularity according to local conditions, provides

suitable strategies for gaining flexibility and adaptability of the waste management system and strengthening cities for future challenges.

## **GLOBAL ENVIRONMENTAL PROBLEMS, ROOT CAUSES AND BARRIERS TO BE ADDRESSED.**

The following list of challenges and barriers were identified to address waste management and circularity approach in participating cities:

- i. Lack of clear and consistent governance, policy, regulatory and institutional frameworks;
- ii. Lack of political will, social consensus or ownership, effective coordination among stakeholders, and enforcement of pollution prevention laws;
- iii. Limited abilities of local authorities to administer waste management due to their limited resources and capacity for planning, contract management, operational monitoring.
- iv. Lack of infrastructure of waste management. The scarcity of evidence-based data hinders the development of waste management strategies and constrains investment decision-making in infrastructure and service expansion.
- v. Difficulties of cost recovery for waste collection, transportation, and treatment;
- vi. Lack of financial instruments to fund material recycling and recovery, waste to energy and resource facility, or other sustainable solutions;
- vii. Lack of regulations or incentives for circularity for companies and individuals which make difficult the redesign of processes resulting in sustainable products as well in citizens' ability to adopt sustainable consumption practices;
- viii. Lack of suitable alternatives for concerning materials such as plastics which make difficult their substitution and reduction in use;
- ix. Lack of markets for recyclables and lack of suitable alternatives;
- x. Lack of know-how, expertise, training, and communication; and
- xi. Lack or scarcity of data on how much waste is generated (volume) and the types of waste being generated, this has not allowed local governments to select appropriate management methods (for ex.: targets for diversion of waste, track progress, waste generation patterns change), assess and acquire suitable technologies, consider strategic partners for service provision and plan for future demand (preventing informed and careful planning).

The main root causes that underlie all the problems listed above can be described as follows:

### **a) Inappropriate waste management planning and lack of consistent policy, regulatory and institutional frameworks.**

A foundational aspect of sustainable waste management is proper planning and oversight from central and local authorities. While waste management is typically a locally operated service, both national and local governments play a role in defining the regulatory framework within which solid waste management services can be developed, and this can affect private sector engagement. Policy, regulatory frameworks, and

incentives play an incredibly important role in reducing waste generation rates, increasing recycling rates or improving the sound management of residual waste.

National governments are typically responsible for establishing environmental standards for waste management and for creating rules for fair and transparent procurement of services from the private sector. National laws encourage local governments to adhere to common social and environmental standards, and local governments also establish rules and regulations that guide households and institutions on the proper management and disposal of waste.

Emerging economy and Least Developed Countries are more likely to lack specific laws on waste management. On the other hand, while most of the countries have developed an official national law or guidelines for waste management, these laws can usually range from broad environmental rules to targeted interventions. Implementation and enforcement of these laws remain a common challenge since it requires adequate staffing, implementation of fees or other penalties, and cultural alignment with legislative goals<sup>23</sup>.

Because responsibility for executing solid waste management systems typically falls on local governments, local rules and regulations are commonly required. Local regulations are not always comprehensively developed within cities to cover specific aspects of waste management, including source separation, household and commercial fees, disposal sites, material recycling, and concerned institutions and agencies that are responsible for implementing waste operations and initiatives locally.

Coordination is required to ensure consistency between the different levels of government. Many governments also struggle with overlaps in responsibilities across agencies or gaps in responsibilities, since activities related to solid waste management often cut across multiple departments.

The challenge is further increased due to the absence of high-quality data on waste volumes, composition, and waste treatment. The available estimates are diverse, not verified or reliable, and often rather dated without standard methodologies for measurement. Thus, transforming waste data into effective and reliable waste management strategies has proven to be difficult.

In order for countries and municipalities to implement a realistic and feasible waste management plan, waste planning and strategies need to be backed up by waste related laws and regulations that can be and are enforced, as well as financial incentives (e.g. through taxes) that, for example, encourage waste avoidance and reduction, waste diversion from landfilling and increase recycling rates.

## **b) Lack of adequate resources invested in waste management and infrastructure.**

It is essential to promote investment and economic sustainability in the sector. Financing waste management systems is often one of the greatest concerns for municipalities and a key element of the sustainability of waste management schemes. Frequently, direct and indirect costs of waste management are ignored by municipalities, investments are insufficient and there are deficiencies in the schemes for charging for services.

Cost recovery is essential to avoid reliance on subsidies from own-source revenues or from national or external sources. On the one hand, waste management investment costs and operational costs are typically financed differently. Given the high costs associated with infrastructure and equipment investments, capital expenditures are often supported by subsidies or donations from the national government or international donors, or through partnerships with private companies. On the other hand, operational expenditures typically require a solid cost-recovery system for long-term sustainability. The starting point for many municipalities is a standard user fee, which is charged to users for services delivered. User fees may be fixed or variable to encourage reduced waste generation or to provide affordability for lower-income residents. In most countries



and cities, the cost of integral waste services (collection, transport, treatment, and disposal) cannot be fully recovered from user fees and requires subsidies through government transfers or external budget support.

In addition, allocation of waste management budget usually must compete with other priorities that consume large resources in cities administration (health, poverty reduction, drinking water supply, infrastructure, etc.). If not properly known and highlighted, the cost of inaction (in relation to health, environment, and development impacts) on waste management can be underestimated<sup>24</sup>. Funding measures (such as Public Private Partnerships (PPP)) to support municipalities/cities/governments in securing larger scale investments for infrastructure (transfer stations, sanitary landfills, waste-to-energy plants, hazardous waste interim storage facilities, industrial recycling plants, etc.) is essential. In addition, developing financial mechanisms to generate sufficient operating resources to manage waste and recyclables on a day-to-day level are key. The following alternatives can be considered as suitable financial mechanisms: tariff setting for waste collection, landfill/disposal taxes, Extended Producer Responsibility (EPR) mechanisms, deposit return schemes, import taxes or bans on products that are challenging to recycle, etc.

### **c) Lack of a holistic approach in dealing with the life cycle management of resources and adoption of circularity principles.**

When working on the improvement of waste management systems, usually municipalities tend to focus on the collection, transport, treatment, and disposal of different waste streams available in their cities. However, one of the main improvements of solid waste management with long-term sustainability comes from the adoption of life cycle assessment of materials and/or products. With proper upstream design, many products could be circulated by being maintained, shared, reused, repaired, refurbished, remanufactured, and recycled. This can begin to close the materials' loop and turn off the tap that is currently sending a torrent of waste into landfills, and incinerators every day. However, the drivers of unsustainable production are challenging to overcome. Frequently supply chains are complicated and long. Effective circular business model is yet to be established by connecting actors from upstream to downstream in the value chain with a shared vision and coordinated approach for sustainability. The opportunity of circular business model is larger in the cities that have sizable manufacturing sectors than those cities whose economy are mainly in the servicing sectors.

The role of governments is essential for enabling the environment through the development and introduction of policies and regulatory measures that encourage companies to design production processes and produce goods and services that require lower energy and natural resource inputs throughout the value chain. An example of this can be green procurement measures. In emerging economy and Least Developed Countries 30% of GDP is spent by governments on national procurement<sup>25</sup>. Pursuing green procurement, starting with the public spending of government entities including cities, could start to drive new markets for greener products and services that will avoid waste or generate less (harmful) waste. Government entities and cities have considerable purchasing power, employ a large workforce, and operate facilities across the city. Their size and operations make these entities a contributor to the amount of waste generated and an influencer in the community. Through developing appropriate policies, government entities and cities can influence others wishing to sell products or services, which can lead to a reduction in waste, efficient resource management and shifting of their own facilities to achieve zero waste and zero pollution targets.

Companies (manufacturers, producers, brands, etc.) should also engage to apply life cycle assessment to analyse impacts throughout the value chain; harness innovation for the design and scale-up of safer, more sustainable products and production processes (using best available technologies and more efficient, cleaner production processes); and provide services to improve resource efficiency (energy, water, materials) in production and product reusability or recyclability, including through sustainable materials management (recycled or renewable content) and phasing out chemicals of concern to reduce impact of processes, products and services. By applying sustainable and green chemistry and cleaner production approaches, companies can

develop and demonstrate alternative processes, materials and/or chemicals with desired properties that avoid using substances of concern.

The undeniable responsibility of society in sustainable consumption should be also highlighted and can be further understood in the following and last identified root cause.

#### **d) Lack of awareness and incentive for change in individual and communities' behavior**

Another deeply rooted cause for the persistence of poorly managed waste in cities is the difficulty of building the necessary capacity and disseminating knowledge to citizens. Environmental education and communication comprise relevant aspects that must be taken into account to help raise awareness about the importance of proper purchasing and waste management to ensure the behavioural change required.

The success of sustained solid waste management is critically linked with public engagement and trust. Waste managers rely on citizens to consciously reduce the amount of waste they generate, separate, for them to manage specific waste types at home, dispose of waste properly, pay for waste management services, and approve new disposal sites. To motivate this support, governments must gain the trust of citizens. Cities and countries need to engage the public by providing high-quality services that earn approval and trust and that, in turn, motivate citizens to pay for services, be environmentally aware, and comply with guidelines and regulations.

Consumer behavior also plays a key role in the shift towards a circular economy and usually offers resistance against learned (purchasing) behavior. The establishment of a new economic order with a clear focus on the recovery on material flows instead of generating excessive amounts of waste, will require consumer acceptance of redesigned products (e.g., durable eco-friendly products) using recycled materials, the phase-out of single use items, reverse business models, waste sorting at source and re-use, re-manufactured and upgraded products.

Although changing citizen behavior can take time, the benefits of a strong relationship with the public are invaluable to a waste management system. Any city waste management system needs to be aligned with community expectations and needs. We must consult users such as community leaders, households, small businesses etc., as ultimately these are the people who would have to start paying for collection services to make them sustainable in the long run. Community associations and civil society should be encouraged to participate in planning and decision-making processes through local committees or regular consultations, but also should have opportunities to learn the benefits of a good city waste management system through education and awareness-related activities.

The Shifting to Zero Waste Against Pollution (SWAP) Initiative is emerging in view of the need to support emerging and least developed countries in adopting effective and sustainable waste management models with a gender-responsive and inclusive approach, while promoting the shift from unsustainable linear patterns to a clean and circular economy. While Zero Waste is still a new approach, it is also increasingly recognized on the global scene, as demonstrated by the recent adoption in December 2022 of an International Day for Zero Waste, upon a proposal of Türkiye to the UN General Assembly. The International Day, which was established on March 30, is being celebrated for the first time in 2023. Türkiye is the leading country in promoting “Zero Waste” Initiative within the UN to combat climate change for sustainable development.

The Global Initiative identifies the following cities to start promoting the Zero Waste vision: Greater Tunis (Tunisia), Freetown (Sierra Leone), Great Montevideo (Uruguay), Kocaeli (Türkiye) and Tianjin (China). The selection was based on the following criteria and consultation with concerned central governments: Potential contribution to the Global Environmental Benefits; Demonstrates political willingness towards zero waste vision (strategy, target, policy, etc.); Geographic balance with representation in different regions; Size (inhabitants) and volume of waste generated in the baseline and BAU by 2030; Ambition and target on the

waste collection, sorting, recycling, and conversion in the mid-term (5 years) against the baseline, including social impact; Potential for public-private partnership and intermunicipal partnerships where applicable; Efforts in greening the production and consumption in the business operations to avoid the harmful chemicals, reduce the waste generation, and facilitate the safe recycling of materials; Existing and planned infrastructure and capacity for hazardous waste management; Innovation in fostering the circular business and diverting the waste streams from open dumping, open burning, (non-sanitary) landfills, and incineration without energy recovery and emission control measures; Co-financing from public and private sectors. The participating cities have all confirmed their commitment and dedication to take on the long-term goals of Zero Waste.

During the PPG phase a deeper assessment on the institutional, legal, financial, technical and knowledge dimensions related to the existing waste management context in each of the participating cities was conducted. The detail of the collected information and analysis can be found in Annex 21.

The following section summarizes the baseline information for each of them.

## THE BASELINE SCENARIO

### Tianjin (China):

**Population:** 11,515,600 (2022) - women: 5,802,900 - men: 5,712,700

### ORGANIZATIONAL STRUCTURE:

The governance of waste management in Tianjin is divided among different authorities based on waste type and management function, with certain departments having cross-cutting responsibilities. This division aligns with national laws and local regulations, suggesting a structured approach to waste management.

The organizational structure for Tianjin waste management (based on waste type) can be detailed as follows:

**Tianjin Ecology and Environment Bureau (EEB):** Responsible for the supervision and management of the prevention and control of solid waste, chemicals, and heavy metal pollution in Tianjin.

**Tianjin Municipal Commission of Urban Management:** Responsible for the supervision and management of the prevention and control of environmental pollution by municipal solid waste and construction waste in Tianjin.

**Tianjin Industrial and Information Technology Bureau:** Responsible for the supervision and management of the prevention and control of industrial waste pollution in Tianjin.

**Tianjin Water Authority:** Responsible for guiding Tianjin municipality to strengthen the supervision of sludge generation, storage, transport and treatment and the operation of sludge disposal plants.

**Tianjin Agriculture and Rural Commission:** On-site inspection of units and other producers and operators engaged in activities such as the generation, collection, storage, transport, utilization and disposal of agricultural solid waste.

**Tianjin Municipal Health Commission:** Responsible for supervision and management of the prevention and control of environmental pollution by medical waste in Tianjin.

### PLANNING/LEGAL STRUCTURE OF A RISK ASSESSMENT:

As detailed in the related Annex, it can be evidenced that many planning and legal instruments has been developed at national and city level which are aligned to the scope of the project, aiming at reducing waste

generation, enhancing its sound management, as well as encouraging circularity. The following can be highlighted:

“Tianjin’s 14<sup>th</sup> Five-Year Plan for Ecological and Environmental Protection”.

“The “Fourteenth Five-Year Plan” for the Development of Circular Economy in Tianjin”.

“Tianjin Industrial Carbon Peak Implementation Programme”

“14th Five-Year” Plastic Pollution Control Action Plan.

When analyzing the several legal and planning instruments being developed up to now, the following main challenges were identified for their effective implementation:

- **Cross-Cutting Management and Coordination:** The multi-departmental nature of waste management in Tianjin resulted in coordination challenges. The diverse responsibilities across departments led to varying degrees of understanding and cooperation, hindering the effective execution of a unified waste management strategy.
- **Inadequate Incentive Mechanisms:** The predominantly administrative approach to waste management, with limited marketization and specialization, failed to establish effective incentive and restraint mechanisms. This led to less competitive and efficient waste management practices and discouraged private sector engagement.
- **Lack of Green Production and Circularity:** There was a recognition of the relatively low practice of green, low-carbon development, and the circular economy model within industries. High development costs, inadequate policy support, and technological innovation were barriers to adopting greener production methods.

## **FINANCIAL ISSUES:**

The primary sources of funding for solid waste management in China, including Tianjin, comprise:

- i) **Financial Eco-Environmental Protection Expenditure:** This includes general public budgets, government funds, and government bond ecological and environmental protection expenditures.
- ii) **Eco-Environmental Protection Investment by Industrial Enterprises:** Enterprises involved in generating solid waste are responsible for covering the costs associated with the collection, transport, treatment, and disposal of solid waste. They also invest in technology upgrades and equipment renewal to enhance the sound management of solid waste.
- iii) **Investment in Eco-Environmental Protection by Financial Institutions:** This involves green credit, green bonds, environmental funds, and green insurance aimed at supporting projects that prevent and control solid waste pollution.
- iv) **Social Capital Participation:** Through PPP (Public-Private Partnership) and EOD (Equity-Oriented Development) modes, social capital invests in eco-environmental protection projects.

The government, enterprises, financial institutions, and social capital play different roles in the operation of waste management funds. The government leads and guides the operation of funds, while enterprises, financial institutions, and social capital are significant participants. Enterprises that produce waste are responsible for the costs related to their waste management.

When assessing the current cost coverage for waste management, the following main challenges were identified in securing adequate financial resources for waste management operations and investments:

- **Insufficient Investment in Ecological and Environmental Protection:** The total amount of investment is not enough to meet the needs for pollution control, and funding sources are relatively single. Projects of strong public welfare like environmental quality improvement have small profitability space, which reduces the enthusiasm of social capital investment.
- **Single Source of Funding:** Project investment and construction are primarily led by government departments with financial funds, establishing a charging mechanism only in sewage and waste disposal fields, resulting in a relatively single source of funding.
- **Use and Management of Financial Funds Need Optimization:** There's a need to focus funds more on key tasks of pollution prevention and control to enhance the precision and quality of inputs. Additionally, the lack of stable funding sources for financial environmental protection special funds is noted.
- **Financing Term Mismatch Problem:** Short-term working capital loans do not match the production, operation, and payback cycles of enterprises, leading to frequent transfers of credit and long investments in short-term loans.
- **Difficulty and High Cost of Financing for Small and Medium-Sized Enterprises (SMEs):** These enterprises face challenges in financing due to their weak ability to resist policy and market risks, a general lack of qualified collateral, and a cautious approach from financial institutions towards lending.
- **Underutilization of Green Finance:** Despite the introduction of several green financial policies, the market-based green financial support means are still lacking, and the issuance of green bonds is dominated by banks, with enterprises facing high issuance thresholds.

## **WASTE DATA:**

<b>Total Waste generation (year base 2022):</b> 24,870,969 tonnes/year.		
<b>Collection Rate:</b> 100%		
<b>Composition</b>	<b>Treatment &amp; Disposal</b>	<b>Comments</b>
Municipal Solid Waste: 4,320,000 ton (17.37%)	Incineration: 100%	<p>There is no officially released domestic classification data in Tianjin.</p> <p>Based on literature data, there is a reference to the classification ratio of domestic waste in China. After the implementation of municipal solid waste classification in China, the proportion of food waste entering incineration plants is 19.63%, rubber and plastic waste is 46.81%, paper waste is 23.24%, and textile waste, glass waste, metal waste, wood and bamboo waste, brick and tile waste, etc. account for a total of 10.32%.</p> <p>There are 13 municipal solid waste incineration power generation facilities, with a capacity of 17,450 tonnes/day, to meet the city's daily demand for municipal solid waste. By 2025, Tianjin will achieve a total capacity of 18,550 tonnes/day through new construction and expansion of waste incineration treatment plants.</p>



		Tianjin has also constructed eight food waste disposal facilities, which can achieve a daily treatment capacity of 1,600 tonnes/day. By 2025, Tianjin will achieve a total treatment capacity of 2,330 tonnes/day for food waste treatment plants through new construction and expansion.
General Industrial Solid Waste 19,460,000 ton (78.24%)	Utilization rate: 99.4%	Although the amount of industrial solid waste generated is large, due to the high recycling rate (over 99%), and Tianjin is still vigorously promoting the comprehensive utilization of large industrial solid waste such as steel slag, fly ash, desulfurization gypsum, etc., to increase product added value, enhance the level and efficiency of comprehensive utilization. Therefore, the amount of industrial solid waste that needs to be sound disposed does not account for a significant proportion of waste in Tianjin.
Hazardous Waste: 1,044,000 ton (4.20%)  Healthcare Waste: 46,969 ton (0.19%)	Utilization: 718,000 ton  Sound disposed: 319,000 ton  Storage: 7,000 ton	There are a total of 44 certified hazardous waste units in Tianjin, with an annual utilization and disposal capacity of 1.8011 million tons, including 1.516 million tons of annual utilization capacity and 285,100 tons of annual disposal capacity.

## Great Montevideo: Montevideo, San José and Canelones (Uruguay):

**Population:** 1,947,232 inhabitants (2022) - women: 1,026,643 - men: 920,589.

### ORGANIZATIONAL STRUCTURE:

The organizational structure for waste management in Uruguay can be summarized as follows:

**Ministry of the Environment:** This is the central government authority responsible for executing the national environmental policy, managing environmental sustainability, promoting sustainable development, overseeing the conservation and utilization of natural resources, and formulating the National Waste Management Plan (PNGR).

**Municipal Governments (Montevideo, San José, Canelones):** They are responsible for managing household waste and the upkeep of public spaces within their specific political-administrative territory. Their powers are regulated by the Municipal Organic Law (Law No. 9,515). Responsibilities include: i) Cleaning streets and places of public use, transporting waste generated in these operations for recycling or other forms of recovery, treatment, and final disposal.; ii) Collection of household waste and its transport for recycling or other forms of recovery, treatment, and final disposal.

### PLANNING/LEGAL STRUCTURE OF A RISK ASSESSMENT:

Uruguay's approach to waste management has evolved significantly, starting from the late 1990s with independently approved regulations focusing on specific waste issues. These initial regulations aimed to organize various waste fractions and establish waste management as a key environmental enhancement factor.

The introduction of regulatory decrees on special waste began the process of establishing Extended Producer Responsibility (EPR), with regulations for lead-acid batteries serving as a pioneering example.

The Law on Integrated Waste Management (LGIR, Law No. 19.829 of 18 September 2019) marked a significant milestone, setting the circular economy as the framework for waste management. It introduced comprehensive guidelines for managing all types of waste, integrating the waste life cycle stages, and emphasizing waste minimization and recovery.

Lastly, it can be highlighted the role of the Ministry of the Environment in formulating the National Waste Management Plan (published in 2021), aiming to transition towards a circular economy and improve waste management practices across the nation.

When analyzing the several legal and planning instruments being developed up to now, the following main challenges were identified for their effective implementation:

- Limited articulation of actions between the three participating municipalities (Montevideo, San José, Canelones), hindering effective collaboration and joint initiatives.
- A need for improved governance mechanisms to ensure the active participation of all relevant stakeholders, including waste pickers, in the waste management process.
- Insufficient progress in the implementation, supervision, and monitoring of the waste management systems established by different regulations. This indicates a gap between policy formulation and its practical application.
- Lack of adequate and timely information to understand the status and evolution of waste management, impeding informed decision-making and priority setting.
- The incipient and limited use of information technologies for the generation and management of data related to waste management, limiting the effectiveness of planning and operational efficiency.
- Market fluctuations affecting the economic sustainability of the local recycling chain and threatening the flow of recovered materials for recycling.

## **FINANCIAL ISSUES:**

The waste management in Uruguay is financed as follows:

**i) Revenues generated by the Municipalities themselves:** Specific charges have been implemented by the municipalities to partially recover the costs associated with waste management. These charges can include fees for the collection and transportation of waste from properties and gate fees for the final disposal of waste. For instance, in Canelones, both a collection and transportation fee and a gate fee for final disposal are imposed. Montevideo has implemented a final disposal fee. These fees are collected to cover some of the operational costs related to waste management.

**ii) Funding from International Cooperation and National Budgets:** Some municipalities seek reimbursable funding from international cooperation sources to manage their own disbursements over time and cover investment needs. This helps to fund infrastructure and operational enhancements in waste management.

Non-reimbursable financing for projects related to waste management can also be accessed through national programs such as the Subnational Development and Management Programme (PDGS) and the Interior Development Fund (FDI), which provide support for municipalities in managing specific waste streams (e.g., pruning, bulky waste).

**iii) Financial and technical support agreements between the Ministry of Environment and Municipalities:** The Ministry of Environment sought funding from the Ministry of Economy and Finance to

support investments in waste management infrastructure across municipalities. An allocation of \$17 million was earmarked to enhance local-level waste management capabilities. This includes projects for the environmental closure of open dumps, construction of sanitary landfills and transfer stations, establishment or renovation of waste sorting plants, and acquisition of machinery and equipment.

In addition, waste management for economic productive activities (e.g., agriculture, industry), sanitary waste, and construction & demolition waste is financed by the respective generators.

Waste streams falling under Extended Producer Responsibility (EPR) is financed by producers and importers. This includes packaging, agrochemical packaging, tires, and lead-acid batteries.

Main challenges in securing adequate financial resources for waste management operations and investments in Great Montevideo are:

- **Funding Gap:** A significant funding gap exists, particularly for municipalities in the metropolitan area, estimated at nearly 20 million dollars per year. This gap reflects the difference between the expenditures necessary to meet established waste management goals and the current flow of expenditures.
- **Lack of Awareness:** There is a lack of awareness among different actors in society regarding the potential environmental, social, and economic benefits of sustainable waste management. This translates into a low capacity of the waste sector to absorb financing and a low willingness to pay on the part of different waste generators for the implementation of specific charging mechanisms.
- **Shortcomings in Accounting Information:** There are shortcomings in the availability of accounting information on revenues and costs of municipal waste management in some municipalities. Additionally, the absence of a unified country-wide information system that individualizes these costs and revenues impedes adequate financial planning in some cases and undermines the robustness of the charging mechanisms per tonne of waste.
- **Late Collection and Low Payment Capacity:** The issue of late collection and the low capacity of some sectors of the population to pay municipal taxes have been identified. This creates tension between the criterion of charging according to what is generated (capacity to pollute) and the criterion of charging according to the socio-economic level of the population or the size of the company (contributive capacity).
- **Competition with Other Policy Objectives:** Although there are different funds in the national budget that allow waste projects to apply for funding, there is competition with other policy objectives (and their corresponding funding needs) that are more visible or more highly valued. This competition can divert resources away from waste management initiatives.
- **Barriers to Financing Circular Economy Ventures:** Challenges exist in financing circular economy ventures aimed at meeting the needs of consumers and organizations while minimizing waste generation. These ventures often face difficulties in securing the necessary investments due to perceived risks or uncertainties associated with innovative waste management practices.

## **WASTE DATA:**

<b>Composition</b>	<b>Treatment &amp; Disposal</b>	<b>Comments</b>
<b>Municipal Solid Waste (Household):</b> 710,740 tonnes/year.	<b>Collection Rate:</b> 98%  <b>Treatment:</b>	The municipal solid waste breakdown is: 45% Organic; 17.3% Plastics (Films, Bottles and other plastics); 13.8% Paper and cardboard; 3.6% Metals; 3.4% Glass; 3.2% Textiles; 1.2% Hazardous Waste.



	<u>Urban waste:</u>	
Montevideo: 481,346 tonnes/year	98% landfilling	Packaging waste: 83,600 tonnes/year - Packaging Recovery: 3-4%
Canelones: 189,863 tonnes/year	<u>Industrial Waste:</u>	Tyres: 11,000 tonnes/year – Tyres Recovery: 63%
San José: 39,531 tonnes/year	Recycling: 49%	Waste Electrical and Electronic Equipment (WEEE): 22,400 tonnes/year (11.5kg/per capita)
	Composting: 12%	Batteries: 3,900 tonnes/year
	Landfill: 15%	
<u>Industrial Solid Waste:</u> 332,019 tonnes/year	<u>Incineration:</u> only hazardous waste: healthcare waste, medicine waste and chemical products (~1650 tonnes/y)	The household waste management modalities in force in the three municipalities are: selective waste collection for different recovery programmes, intradomiciliary composting, ecopoints for special waste and mixed waste collection for final disposal.
<u>Healthcare waste (HCW):</u> 6,170 tonnes/year (at national level)		Collection coverage is estimated to be close to 100 % of the urban area and includes, in some cases, the collection of rural areas.
		Final disposal: the three municipalities currently have disposal sites either in environmentally suitable conditions or in controlled environmental conditions). Additionally, in San José, where small open dumps were identified, 95% have already been closed, leaving only the last two to be closed.

## Kocaeli (Türkiye):

**Population:** 2,079,072 inhabitants (2022) - women: 1,036,831 - men: 1,042,241

## ORGANIZATIONAL STRUCTURE:

The governance structure for waste management in Kocaeli, Türkiye can be summarized as follows:

**Ministry of Environment, Urbanization and Climate Change (MoEUCC). Responsibilities:** Overall governance and regulation of environmental policies and practices, including waste management across Türkiye. The Ministry is responsible for setting national waste management regulations, standards, and guidelines. It oversees and coordinates efforts towards environmental protection, urbanization, climate change mitigation, and adaptation. **Competencies:** Enacting regulations, overseeing compliance, and implementing national strategies for waste management and environmental protection. The Ministry also manages the Integrated Environmental Information System and the Zero Waste Information System for waste declarations and tracking.

**Kocaeli Provincial Directorate of Environment, Urbanization and Climate Change. Responsibilities:** Regional arm of the MoEUCC, responsible for the implementation and enforcement of national environmental policies, regulations, and programs at the provincial level. It oversees waste management

practices, including the management of hazardous and non-hazardous waste, within Kocaeli province.

**Competencies:** Monitoring and ensuring compliance with environmental regulations, providing training and awareness programs, coordinating with local municipalities, and supporting waste management infrastructure projects.

**Kocaeli Metropolitan Municipality. Responsibilities:** Direct responsibility for the collection, transportation, and disposal of municipal waste. The Metropolitan Municipality is also tasked with establishing and operating waste disposal and treatment facilities, including landfills, transfer stations, and recycling centers. It plays a significant role in implementing the zero-waste management system, medical waste management plan, and climate change action plan within its jurisdiction. **Competencies:** Operational management of municipal waste, development and maintenance of waste infrastructure, conducting environmental awareness and training activities, and ensuring the integration of district municipalities and other stakeholders in waste management efforts.

**District Municipalities within Kocaeli Province. Responsibilities:** Collection of municipal waste at the source and its transportation to transfer stations or directly to disposal facilities. District Municipalities are involved in the local implementation of zero waste management practices and ensure compliance with the regulations set by the higher authorities. **Competencies:** Local waste collection and transportation, promotion of source separation and recycling initiatives, engagement with citizens and local businesses to foster environmental awareness, and compliance with municipal waste management guidelines.

## **PLANNING/LEGAL STRUCTURE OF A RISK ASSESSMENT:**

The planning and legal frameworks for waste management in Kocaeli, as well as Türkiye at large, have included a range of national and local regulations, strategies, and action plans. Key elements include:

**Environmental Law No. 2872:** The foundational legal framework providing the basis for environmental protection and waste management in Türkiye.

**Zero Waste Regulation and the Establishment of the Zero Waste Management System:** Aimed at reducing waste at the source, encouraging reuse and recycling, and ensuring the proper disposal of remaining wastes.

**Municipal Law and Metropolitan Municipality Law:** Outline the responsibilities of local governments in waste collection, transportation, and disposal.

**Specific Regulations for Different Types of Waste:** Including regulations on the control of hazardous wastes, packaging wastes, electronic wastes, and medical wastes.

The implementation of these regulations and action plans has led to significant improvements in waste management practices in Kocaeli and across Türkiye. Key achievements include the establishment of comprehensive waste management infrastructure, increased recycling rates, and heightened public awareness on environmental issues. However, when analyzing the several legal and planning instruments being developed up to now, the following main challenges were identified for their effective implementation:

- **Limited Coordination Among Institutions:** Lack of effective coordination between national and local governments, as well as among different departments within the same governance level, can lead to inefficiencies and inconsistencies in waste management policies and practices.
- **Insufficient Capacity and Resources:** Some municipalities or institutions may lack the necessary resources, infrastructure, or technical capacity to implement and enforce waste management regulations effectively.

- **Informal Waste Sector:** The existence of an informal waste collection and recycling sector can undermine formal waste management efforts, leading to unregulated practices that may not align with environmental standards.
- **Inadequate Enforcement of Regulations:** Weak enforcement mechanisms for existing waste management regulations can lead to non-compliance, reducing the overall effectiveness of the waste management system.
- **Lack of Public Engagement:** Effective waste management requires active participation from the public. However, insufficient efforts to engage communities, lack of awareness, and cultural barriers can reduce participation in recycling and waste reduction programs.
- **Fragmented Responsibility:** The division of responsibilities across multiple authorities can lead to gaps in service provision and accountability, making it difficult to manage the waste management system efficiently.
- **Insufficient Data and Monitoring:** Lack of comprehensive and accurate data on waste generation, composition, and management practices can hinder effective planning and decision-making.
- **Outdated Regulations:** Existing legal frameworks may not fully address current challenges or technological advancements in waste management, making them less effective in governing modern waste management practices.
- **Complex Regulatory Environment:** A complex or overly bureaucratic regulatory environment can slow down the implementation of new waste management initiatives or deter investment in innovative solutions.
- **Lack of Specific Legislation for Emerging Waste Streams:** As new types of waste emerge (e.g., e-waste, pharmaceutical waste), the absence of specific regulations can lead to management challenges and environmental risks.

## **FINANCIAL ISSUES:**

The waste management in Kocaeli is financed as follows:

**Government Funding:** A significant portion of the waste management financing comes from local and national government budgets. This includes funding for infrastructure development, such as landfill sites, recycling facilities, and waste treatment plants. The government may also allocate funds for specific projects aimed at enhancing waste management systems or addressing particular waste streams.

**Service Fees and Taxes:** Households and businesses contribute to the financing of waste management services through service fees and taxes. These may include fees for waste collection and disposal, as well as environmental taxes or levies specifically earmarked for waste management purposes. The 'Polluter Pays' principle suggests that waste producers are financially responsible for the management of the waste they generate.

**Revenues from Waste Processing:** The sale of recyclable materials and energy generated from waste treatment processes (e.g., biogas from anaerobic digestion) can provide additional revenue streams for waste management operations. These revenues can offset some of the costs associated with waste processing and treatment.

**Grants and External Funding:** International organizations, such as the Global Environment Facility (GEF) and the European Union (EU), may provide grants and financial assistance for specific waste management projects, especially those focused on climate change mitigation, recycling, and pollution reduction. These funds can support critical investments in infrastructure, technology, and capacity-building efforts.

**Public-Private Partnerships (PPPs):** For large-scale waste management projects or the introduction of advanced waste treatment technologies, public-private partnerships can be a valuable financing mechanism.

Through PPPs, private sector investments complement public funding, allowing for the development of sustainable waste management solutions.

Main challenges in securing adequate financial resources for waste management operations and investments in Kocaeli are:

- **High Initial Capital Investment:** Significant CAPEX is required for establishing waste management infrastructure such as landfills, recycling facilities, and waste-to-energy plants. Securing funding for these initial investments can be challenging, especially in the context of limited municipal budgets and competing priorities.
- **Operational Costs Sustainability:** Ongoing operational costs, including maintenance of facilities, waste collection, and processing, can strain local government budgets. Ensuring sustainable funding sources to cover these OPEX is a continuous challenge.
- **Fluctuating Revenues from Recyclables:** The revenue generated from selling recyclable materials can be volatile, depending on market demand and commodity prices. This uncertainty can pose a financial risk for waste management operations relying on these revenues to cover part of their operating costs.
- **Limited Access to Financing:** Accessing loans or external funding for waste management projects can be hindered by high-interest rates, stringent lending criteria, or lack of collateral. This barrier is particularly significant for innovative or high-risk projects.
- **Inadequate Pricing and Tariff Structures:** If waste management service fees or tariffs are not adequately priced, they may not cover the full cost of service provision. This underpricing can lead to funding gaps for both OPEX and CAPEX.
- **Insufficient Government Funding and Subsidies:** Limited availability of government subsidies or financial support for waste management can restrict the ability to undertake necessary investments and operations. This is especially critical for projects with significant environmental benefits but lower immediate financial returns.
- **Regulatory and Policy Constraints:** Fiscal policies and regulations may limit the ability of local governments to raise funds through taxes or fees. Additionally, regulatory barriers can affect the implementation of public-private partnerships or the attraction of private investment.
- **Competition for Public Funds:** Waste management must compete with other public services for limited governmental budgets. Priority may be given to sectors perceived as more critical or urgent, leaving insufficient funds for waste management initiatives.
- **Lack of Financial Incentives:** The absence of financial incentives for waste reduction, recycling, and recovery can hinder the development and implementation of sustainable waste management practices. This includes incentives for both households and businesses to participate in waste separation and recycling programs.

## WASTE DATA:

Composition	Treatment & Disposal	Comments
Municipal Solid Waste: 575,642 tonnes/year	Collection Rate: 98%	The municipal solid waste breakdown is:  Kitchen waste 54,2%; Plastic 14,58%; Other combustibles 14,49%; Glass 4,88%; Carton 3,34%; Paper 2,57%; Ash (stone, soil, etc) 1,87%; Metal 1,51%; Hazardous waste 0,91%; Other combustible bulky wastes 0,66%; Park and
Industrial Solid Waste	Landfill: 89%	

Non-hazardous: 2,558,856 tonnes/year	<u>Recycling:</u> 3%	garden waste 0,64%; Other incombustibles 0,16%; Waste electrical and electronic equipment 0,15%; Other incombustible bulky wastes 0,03%; Bulky carton 0,01%.
Hazardous: 357,081 tonnes/year	<u>Incineration:</u> 6%	
Healthcare Waste: 2,766 tonnes/year		<p>Kocaeli has 405 facilities for the recovery/recycling of hazardous waste, non-hazardous waste, packaging waste, end-of-life tires and other special wastes.</p> <p>Kocaeli has a facility with an incineration capacity of 5,400 kg/hour and combustible plastic wastes, used oils, pharmaceutical and cosmetic wastes, petrochemical wastes, PVC, solvents, paint wastes, adhesives and adhesives, treatment sludge, etc. hazardous wastes and pathological wastes are disposed in this facility.</p> <p>Kocaeli is the most industrialized city in Türkiye, where there are many sectors that produce hazardous waste as well as many products.</p> <p>There are 15 organized industrial zones, 4 technoparks and R&amp;D centers, 2 free zones and 2 universities in total.</p> <p>There is a high potential to circulate secondary raw materials among other manufacturing processes in case its non-contamination with toxic chemicals can be ensured.</p>

## Greater Tunis (Tunisia):

**Population:** 2,800,000 inhabitants - women: 1,416,994- men: 1,383,005\_

### ORGANIZATIONAL STRUCTURE:

The governance structure for waste management in Tunis can be summarized as follows:

**Ministry of Environment:** Involved in preparing legislation related to waste management. It also acts as a decision-maker for legislation and, depending on the type of waste, may be responsible for permitting operations.

**National Waste Management Agency (ANGed):** A key player in the waste management framework, responsible for transport collection permits, treatment alongside the National Environment Protection Agency (ANPE), and control and operation of waste stream systems like ECO-LEF, ECO-ZIT, and ECO-PILES. ANGed also contracts private companies for treatment operations.

**Ministry of Interior:** Participates in preparing and deciding on waste management legislation.

**National Environment Protection Agency (ANPE):** Responsible for treatment permissions in collaboration with ANGed and the Ministry of Environment for certain waste types, and for controlling pollution.

**Municipalities:** Responsible for municipal waste management, decision-making on local rules, setting tariffs for transport collection, and direct operation of transport collection. The document mentions an expansion from 165 municipalities before 2018 to 350 municipalities, covering the whole territory.

Governorates: Involved in concertation with municipalities for local rule-making.

## **PLANNING/LEGAL STRUCTURE OF A RISK ASSESSMENT:**

Legally, waste management policies in Tunisia has led to a variety of regulations developed since 1975, including: Law 1996-1941 dated 10/06/1996 on the control of the waste management and disposal; Law 92 – 122 establishing a depollution fund (FODEP); Law 1975-33 dated 14/05/1975 on the organic law of Commons entrusting waste collection in communal areas to municipalities; Law n°97-11 of 3 February 1997, promulgating the code of local taxation; Decree N° 2317-2005 of 22/8/2005: Establishing a national waste management agency (ANGed); Decree 726-1989 dated 10/6/1989 relating to rural councils entrusting waste disposal in rural areas to elected councils.

When analyzing the several legal and planning instruments being developed up to know, the following main challenges (institutional, governance, planning and legal) were identified for their effective implementation:

**Overlapping mandates and responsibilities:** The presence of multiple entities with unclear or overlapping authority over various aspects of waste management complicates the coordination and implementation of policies and programs.

**Centralization of authorities:** Despite efforts towards decentralization, the centralization of decision-making at the national level disrupts effective local management and adaptation of waste management strategies.

**Lack of Public Participation:** The absence of mechanisms for engaging the public and stakeholders in decision-making processes has limited community involvement and support for waste management initiatives.

**Poor Implementation of Existing Frameworks:** The current organizational framework for SWM is poorly implemented, with disrupted functions due to unclear lines of authority and overlapping mandates.

**Underutilization of Circular Economy tools:** There is a noted lack of concrete scenarios and standard models for the implementation of a circular economy, indicating a gap in planning for environmentally friendly transformation.

**Reliance on Limited Data:** The system for collecting municipal solid waste has been established without adequate data, affecting the planning and optimization of waste management operations.

**Absence of financial incentives and effective cost recovery mechanisms:** The funding system for waste management is characterized by low-cost recovery, which discourages investment and innovation in the sector.

**Outdated or inadequate legislation:** Some of the legal frameworks and regulations developed since 1975 may not fully address the current challenges of waste management or the need for modern, sustainable practices.

**Lack of specific regulations for emerging waste management approaches:** While significant laws and decrees have been established, there may be gaps in legislation specifically supporting new waste management technologies, recycling, and circular economy practices.



**Difficulties in Law enforcement:** The enforcement of existing laws and regulations related to waste management and environmental protection is challenging, contributing to issues like illegal dumping and inadequate waste processing.

## **FINANCIAL ISSUES:**

The waste management in Greater Tunis is financed as follows:

**Municipal Level Financing:** The municipal financing system relies on general budget resources. Operating costs of waste services represent a significant portion of municipal budgets and revenues, with national average revenue from local taxes like the Tax on built buildings (TIB) covering only a small fraction of these costs. An average recovery rate of 60% would be necessary to cover all municipal costs linked to the waste service, indicating a significant gap in cost recovery.

**National Level Financing:** The financing of solid waste management at the national level is characterized by two parallel systems: one managed by municipalities and the other through ANGED. The State, through the Eco-tax, finances 80% of the investment and operating cost of transfer centers and sanitary landfills, indicating substantial public investment in waste management infrastructure. Additional budgetary allocations are transferred to municipalities via mechanisms such as the Common Fund for Local Authorities (FCCL) and the Loan and Support Fund for Local Authorities (CPSCL).

## **Specific Investments and Financial Mechanisms:**

**ECOTAX:** This tax is a critical resource backing investments in waste management, covering a significant portion of the costs for landfilling and treatment facilities.

**Extended Producer Responsibility (EPR):** Tunisia is working on improving regulation through the design of national systems based on EPR, involving coordination with the Ministry of Finance and the General Directorate of Tax Studies and Legislation (DGELF) to synchronize different financing mechanisms. The design of EPR model is actually under development for some waste streams, such as Vegetable oils, small batteries, WEEE, and several initiatives on packaging. In addition, a number of producers expressed their readiness to adhere to the efforts toward increasing the collection and the recycling of the waste.

**Public-Private Partnerships:** The operational body for activities like transport collection and treatment often involves municipalities working directly or via private companies, highlighting the role of private sector investment in waste management.

Main challenges in securing adequate financial resources for waste management operations and investments in Greater Tunis are:

- **Low-Cost recovery:** The significant gap between the costs incurred and the revenue generated from waste management services makes it challenging to sustain operations and invest in necessary infrastructure.
- **Reliance on limited budget resources:** Municipal financing systems heavily rely on general budget resources, with the operating cost of waste services consuming a substantial portion of municipal budgets. The revenue from local taxes such as the Tax on Built Buildings (TIB) barely covers a fraction of these operating costs, indicating a heavy financial burden on municipalities.
- **Absence of specific fees for Municipal waste management services:** There are no specific fees designated for municipal waste management services, which complicates the process of generating dedicated funds for this purpose.
- **Inadequate financial incentives and cost recovery mechanisms:** The funding system for waste management is characterized by the absence of financial incentives for reducing waste or enhancing

recycling efforts, as well as effective mechanisms for cost recovery. This results in a lack of motivation for stakeholders to invest in or support waste management initiatives.

- **Unclear criteria for fund distribution:** the fees distribution by the central treasury is based on unclear criteria, leading to inefficiencies and potentially unfair allocation of resources.
- **Dependence on Eco-Tax for major funding:** While the Eco-Tax provides significant support for waste management financing, this heavy reliance on a single source of funding may not be sustainable in the long term, especially if there are fluctuations in revenue generated from this tax.
- **Challenges in financing from the private sector:** Lack of investment by the private sector, partly due to the financial barriers mentioned above. Without clear financial incentives or a stable regulatory environment, private entities may be hesitant to commit resources to waste management operations or infrastructure development.

## **WASTE DATA:**

<b>Composition</b>	<b>Treatment &amp; Disposal</b>	<b>Comments</b>
Municipal Solid Waste: 923,235 tonnes/year  Industrial waste: 2,512 tonnes/year		The municipal solid waste breakdown is:  Organic waste 45.1%; Paper and Cardboard 18.1%; Glass 5.3%; Plastic 11.9%; WEE 0.2%; Tinsplate compounds 2.05%; Aluminum compounds 0.8%; Textiles 2.26%; Batteries 0.1%; Wood 1.3%; Hazardous Materials 0.1%
Healthcare Waste: 4,359.8 tonnes/year	Collection Rate: 84%	There are 17 landfills and 57 transfer centres in operation.
	Not collected/Not appropriately disposed of: 16%	
	Landfill: 78%	
	Recycling: 4%	
	Composting: 1%	
Demolition Waste: 1,960,000 tonnes/year	Incineration: 0%	The National Strategy for the Integrated and Sustainable Management of Household and Assimilated Waste 2020-2035 sets a series of specific objectives in terms of waste prevention and management: - Reduce the amount of household and similar waste (HWW) produced per capita by 10% in 2035, compared to the figures for the year 2020. - Increase the material recycling rate of household and similar waste to 20% by 2035. – Gradually increase the amount of waste that is organically or energetically recovered, reaching a rate of 40% by 2035. – Reduce landfilling by 60% of WAS by 2035.  As per 'Etude Inventaire de Déchets Dangereux en Tunisie/2018' industrial waste in Tunisian territory is 268,000 t/y (of which 22% in Greater Tunis).  96% of hazardous waste is produced by 8 industries: Textile and clothing (20%); Electric and Electronics (27%); Plastics (8%); Mechanical and metal industry: metals treatment, construction (9%); Mechanical and



		metal industry: non-ferrous metals (3%); chemicals (3%); agro industry (2.5%).
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## **Freetown (Sierra Leone):**

**Population:** 1,268,757 inhabitants - women: 654,841 - men: 613,916.

### **ORGANIZATIONAL STRUCTURE:**

The governance structure for waste management in Freetown can be summarized as follows:

**Ministry of Local Government and Community Affairs:** This ministry oversees the administration of wastes at the local level, ensuring coordination with the Local Government Act of 2022 and related local by-laws. It plays a crucial role in managing waste within their area of responsibility.

**Ministry of Environment and Climate Change:** Provides policy direction for the environmental sector in collaboration with relevant ministries of government. This ministry is responsible for overseeing the overall environmental impact of waste management practices.

**Environment Protection Agency-Sierra Leone (EPA):** This agency is charged with protecting the environment, including regulating waste management activities, through environmental impact assessments, fines, abatement notices, etc. It works in coordination with the Ministry of Environment and Climate Change.

**Ministry of Health (Directorate of Environmental Health):** This department focuses on public health aspects related to waste management, implementing the Public Health Act and ensuring sanitary conditions in waste handling and disposal.

**Ministry of Water and Sanitation:** This ministry's involvement suggests a focus on the impacts of waste management on water resources and the provision of sanitation services related to waste management.

**Freetown City Council (FCC):** Directly manages waste collection, transportation, and disposal within the city. The council works under the guidance and policies set by the national ministries and the Environment Protection Agency. It also collaborates with private waste management service providers to enhance waste management services.

### **PLANNING/LEGAL STRUCTURE OF A RISK ASSESSMENT:**

The planning and legal frameworks for waste management in Sierra Leone have encompassed a variety of strategies and regulations, aiming to improve waste management practices and environmental sustainability. Notably, legislation such as the Environmental Protection Agency Act of 2008 (and its subsequent amendments in 2010 and 2022) were enacted to oversee environmental impact assessments for projects, including those related to waste management. Additionally, various acts like the Mines and Minerals Act of 2009, the Wildlife Conservation Act of 1972, and the Local Government Act of 2004 have provided legal grounds for the governance and management of waste, emphasizing the importance of environmental protection and the conservation of natural resources. Sierra Leone has also engaged internationally, signing conventions like the Stockholm Convention on Persistent Organic Pollutants and the Basel Convention, committing to global standards in waste management and pollution control.

When analyzing the several legal and planning instruments being developed up to now, the following main challenges (institutional, governance, planning and legal) were identified for their effective implementation:

- **Inadequate waste legislation framework:** Existing laws and regulations pertaining to waste management lack comprehensiveness and specificity, leading to gaps in addressing emerging waste streams such as electronic waste, hazardous materials, and organic waste.
- **Weak enforcement mechanisms:** The enforcement of waste management regulations by Metropolitan police officers and Sanitation inspectors is described as very weak. This lack of enforcement has resulted in challenges such as open burning practices, street littering, and the removal of manhole covers for garbage dumping.
- **Fragmented regulatory oversight:** The regulatory oversight appears to be fragmented across multiple government agencies, leading to challenges in coordination and accountability. This fragmentation results in overlapping mandates, jurisdictional disputes, and gaps in regulatory coverage, especially among the Ministry of the Environment and Climate Change, Ministry of Health, Ministry of Local Government, Environmental Protection Agency, and the Freetown City Council.
- **Insufficient Penalties for Non-Compliance:** The penalties imposed by the Freetown City Council for violations related to waste management are not sufficient to effectively deter violations. Additionally, there is a lack of incentives or rewards for entities or individuals that adopt environmentally sustainable waste management practices.
- **Exclusion of the informal sector:** Major interventions on waste exclude the informal sector from planning to implementation, despite the sector's significant role in waste collection, recycling, and disposal. Regulatory frameworks are not adequately integrated to include informal waste management activities, leading to informal dumping and pollution.
- **Limited stakeholder engagement:** There is limited meaningful engagement with stakeholders such as local communities, waste industry players, non-governmental organizations, and journalists, especially in hotspot areas. This has impacted the effectiveness of waste management policies and regulations.
- **Uncoordinated activities among key players in the waste sector:** The regulations have not been effective due to uncoordinated activities among key players in the waste sector. A more coordinated regulatory system with Ministries, Departments, Agencies (MDAs), and the Freetown City Council is needed for stronger enforcement and coordination.

## **FINANCIAL ISSUES:**

The financing of waste management in Sierra Leone, particularly in Freetown, involves a combination of government funding, international aid, public-private partnerships (PPPs), user fees, community-based initiatives, and innovative financing mechanisms.

**Government Funding:** The Sierra Leone government, through its Devolved function grant under the Ministry of Finance, disburses an annual budget to support the Freetown City Council for waste management activities. This funding is used for various purposes, including the construction and maintenance of waste treatment facilities, procurement of equipment and vehicles for waste collection and transportation, and implementation of public awareness campaigns.

**International Aid and Donors:** International donors, development agencies, and non-governmental organizations (NGOs) provide financial assistance, technical expertise, and capacity-building support. Projects supported by these entities aim to improve waste management infrastructure, implement sustainable waste disposal practices, and strengthen institutional capacities. The World Bank's Resilient Urban Sierra Leone Project (RUSLP) is an example of such support, focusing on integrated urban planning, own-source revenue enhancement, infrastructure and basic service upgrading, and disaster management.

**Public-Private Partnerships (PPPs):** The Freetown City Council collaborates with private sector entities such as Masada, Klin Tin, Mr. Klin, waste transformers, and waste tricycle collectors through PPPs. These partnerships leverage private sector resources, expertise, and innovation to improve the efficiency and

effectiveness of waste management systems. Contractual agreements with private companies often involve waste collection, transportation, recycling, and disposal activities.

**User Fees and Tariffs:** Waste management services in Freetown are financed through user fees and tariffs levied on property taxes, businesses, and institutions. These fees contribute to covering the operational costs of waste collection, transportation, and disposal, with revenue generated from user fees being reinvested in expanding and upgrading waste management infrastructure and services.

**Community-Based Initiatives:** Local initiatives and community involvement also play a role in financing waste management, particularly in terms of grassroots recycling and waste reduction efforts.

Main challenges in securing adequate financial resources for waste management operations and investments in Freetown are:

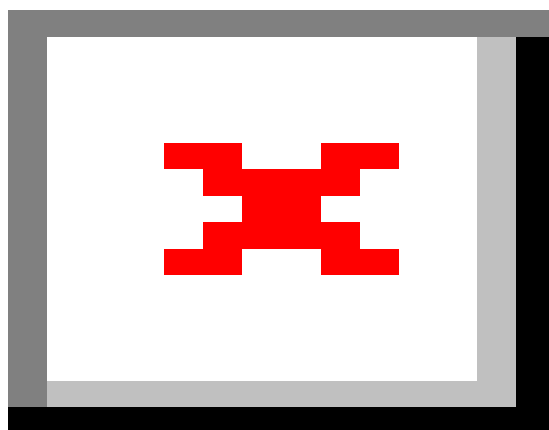
- **Limited funding opportunities for waste management:** The Freetown City Council often has limited budgets allocated from the Government of Sierra Leone for operations. The city requires significant financial resources for investments in green infrastructure, such as establishing recycling facilities, composting sites, and waste-to-energy plants. The challenge of securing funding opportunities affects the ability to address waste initiatives comprehensively.
- **Inadequate financial incentives:** There are no direct financial incentives for the Freetown City Council to invest in waste solutions. The revenue generated is accounted for on a quarterly basis and is minimal, with only a small portion allocated for sanitation. This limits the potential cost savings from waste reduction and recycling efforts.
- **Complex funding streams:** Funding for the Freetown City Council comes from various sources, including local taxes, grants, and municipal programs. Coordinating these funding streams and navigating bureaucratic processes is very challenging, leading to delays and inefficiencies in implementing waste initiatives.
- **Political involvement and resistance:** The council experiences political interference in its revenue collection and related operations, particularly from the oversight Ministry of Local Government and Community Affairs. This has affected the disbursement of funds and limited the operations of managing waste.
- **Capacity gap on financial technical expertise:** There is a lack of financial technical expertise and capacity within the council to develop and implement effective waste management systems. This hinders their ability to assess the feasibility of different financial options for waste management and navigate regulatory requirements.
- **Inadequate data and monitoring capability:** The council's manual data recording methods make real-time analysis impossible, even for whatever little data is collected on revenue collection or operational issues. An effective zero-waste initiative requires accurate data collection, monitoring, and evaluation, which are currently lacking.
- **Gaps in legal and regulatory frameworks for revenue collection:** The current legal and regulatory frameworks present barriers to meeting the city's targets in waste management. Restrictions in waste disposal methods and permit requirements hinder effective collection and recycling practices.
- **Inadequate community engagement:** While there have been community engagement efforts, they are on a very small scale regarding civic rights and responsibilities related to revenue collection (local tax and property taxes, etc.). More comprehensive engagement is needed to bring people closer to the council's operations and improve behavioral change for waste reduction efforts.

## WASTE DATA:

Composition	Treatment & Disposal	Comments
Municipal Solid Waste: 550,000 tonnes/year	Collection Rate: 30-35%	The municipal solid waste breakdown is:  Food and green 80-85%; Plastics 11.5%; Paper and Cardboard <1%; Glass <1%; Metal <1% ; Wood <1%.
Industrial waste: 7,300 tonnes/year	<u>Not collected/Not appropriately disposed of:</u> 65-70%	Waste management is grossly inadequate in Freetown and waste that is not collected is disposed of in open dumpsites (~70%).
Healthcare waste: 265 tonnes/year	<u>Landfill:</u> 1%	Waste is often mixed at source.
	<u>Recycling:</u> no data available (although recycling activities are being conducted in the city.)	Insufficient waste treatment and disposal facilities.  The two main dumpsites in Freetown are amongst the largest in the world and pose a health risk to waste pickers living on the dumpsite as well to the neighbouring communities.
	<u>Incineration:</u> only for Healthcare Waste.	Limited or non-existent formal recycling facilities.  Limited dedicated funding to Local Government for operationalizing waste collection services; difficult terrain for collection vehicles to reach most parts of the city.

## THE DEVELOPMENT CHALLENGE

The development challenge is local contexts of the participating municipalities, within the national frameworks, that encompasses a series of regulatory, institutional, financial, technical, behavioral, social, and environmental gaps that impede the local capacities to effectively manage waste through the adoption of waste hierarchy principles with the waste reduction as a first step, increase circularity and reduce chemical pollution within value chains. This results in the leakage of wastes to the local environment (soil, water, and air) and contributes to the pollution problems of global concern (marine litters, POPs, GHGs especially methane, heavy metals, hazardous chemicals, etc.), exposes communities to toxic environment and harms the most vulnerable populations disproportionately.



## Theory of Change: Problem Tree Analysis Diagram

During the PPG phase a deep assessment of the current situation in each of the participating cities was conducted and specific barriers aligned to the Global Problem Tree Analysis were identified. The following can be highlighted:

### Tianjin – China:

- The inter-departmental management and coordination mechanism is not yet well-established, leading to sectoral management barriers and poor mechanisms for co-disposal of solid wastes like recycled resources and general industrial solid wastes.
- Insufficient Investment in Ecological and Environmental Protection. The total amount of investment is not enough to meet the needs for pollution control, and funding sources are relatively single. Projects of strong public welfare like environmental quality improvement have small profitability, which reduces the enthusiasm of social capital investment.
- Low degree of practice in green low-carbon development, and the circular economy model of the industrial chain of typical industries has not been established. High development costs, inadequate policy support, and technological innovation were barriers to adopting greener production methods.
- Short-term working capital loans do not match the production, operation, and payback cycles of enterprises, leading to frequent transfers of credit and long investments in short-term loans. Small and Medium-Sized Enterprises (SMEs) enterprises face challenges in financing due to their weak ability to resist policy and market risks, a general lack of qualified collateral, and a cautious approach from financial institutions towards lending.

- The public's awareness of green and low-carbon lifestyles is not yet well-developed. This lack of awareness affects the adoption of sustainable waste management practices among the general population.
- Municipal solid waste 100% incinerated. There is no officially released municipal solid waste classification data in Tianjin.

#### Great Montevideo – Uruguay:

- Lack of coordination between municipal and national waste policies. Need for improved governance mechanisms to ensure the active participation of all relevant stakeholders, including waste pickers, in the waste management value chain.
- Insufficient progress in the implementation, supervision, and monitoring of the waste management systems established by different regulations. This indicates a gap between policy formulation and its practical application.
- Lack of adequate and timely information to understand the status and evolution of waste management, impeding informed decision-making and priority setting. Shortcomings in the availability of accounting information on revenues and costs of municipal waste management in some municipalities.
- Insufficient resources invested in waste management and infrastructure, alongside inadequate current incomes to cover operational costs.
- Significant funding gap exists which reflects the difference between the expenditures necessary to meet established waste management goals and the current flow of expenditures.
- Market fluctuations affecting the economic sustainability of the local recycling chain and threatening the flow of recovered materials for recycling.
- Challenges exist in financing circular economy ventures, they face difficulties in securing the necessary investments due to perceived risks or uncertainties associated with innovative business models practices.
- Informality and precariousness in waste collection and sorting, impacting the efficiency and safety of waste management operations.
- High levels of organic waste landfilled due to limited capacities for separation and recovery at both household/community and centralized levels.
- Insufficient awareness and incentives for individuals and communities to change their behaviors regarding waste management. / Lack of awareness among different actors in society regarding the potential environmental, social, and economic benefits of sustainable waste management

#### Kocaeli – Türkiye:

- Lack of effective coordination between national and local governments, as well as among different departments within the same governance level, lead to inefficiencies and inconsistencies in waste management policies and practices.
- Some municipalities or institutions may lack the necessary resources, infrastructure, or technical capacity to implement and enforce waste management regulations effectively.
- The existence of an informal waste collection and recycling sector can undermine formal waste management efforts, leading to unregulated practices that may not align with environmental standards.



- Lack of comprehensive and accurate data on waste generation, composition, and management practices that hinder effective planning and decision-making.
- Significant CAPEX is required for establishing waste management infrastructure such as landfills, recycling facilities, and waste-to-energy plants. Securing funding for these initial investments can be challenging, especially in the context of limited municipal budgets and competing priorities.
- Accessing loans or external funding for waste management and circular business models projects can be hindered by high-interest rates, stringent lending criteria, or lack of collateral. This barrier is particularly significant for innovative or high-risk projects.
- Absence of financial incentives for waste reduction, recycling, and recovery can hinder the development and implementation of sustainable waste management practices. This includes incentives for both households and businesses to participate in waste separation and recycling programs.
- Insufficient efforts to engage communities, lack of awareness, and cultural barriers reduce participation in recycling and waste reduction programs.

#### Freetown – Sierra Leone

- Uncoordinated Activities Among Key Players in the Waste Sector. Regulatory oversight appears to be fragmented across multiple government agencies, leading to challenges in coordination and accountability. This fragmentation results in overlapping mandates, jurisdictional disputes, and gaps in regulatory coverage, especially among the Ministry of the Environment and Climate Change, Ministry of Health, Ministry of Local Government, Environmental Protection Agency, and the Freetown City Council.
- Existing laws and regulations pertaining to waste management lack comprehensiveness and specificity, leading to gaps in addressing emerging waste streams such as electronic waste, hazardous materials, and organic waste. Weak enforcement mechanisms.
- The Freetown City Council often has limited budgets allocated from the Government of Sierra Leone for operations. Limited funding and inadequate financial incentives, challenge the sustainability of waste management operations and investments.
- Lack of financial technical expertise and capacity within the council to develop and implement effective waste management systems.
- The council's manual data recording methods make real-time analysis impossible, even for whatever little data is collected on revenue collection or operational issues.
- Waste management is grossly inadequate in Freetown and waste that is not collected is disposed of in open dumpsites (~70%). Waste is often mixed at source and there are Insufficient waste treatment and disposal facilities.
- Major interventions on waste exclude the informal sector from planning to implementation, despite the sector's significant role in waste collection, recycling, and disposal.
- Limited meaningful engagement with stakeholders such as local communities, waste industry players, non-governmental organizations, and journalists, especially in hotspot areas.

#### Greater Tunis – Tunisia

- Multiple entities with unclear or overlapping authority over various aspects of waste management complicates the coordination and implementation of policies and programs.
- Limited data on waste management systems, affecting the planning and optimization of waste management operations.
- Outdated and Inadequate Legislation. In addition, gaps in legislation specifically supporting new waste management technologies, recycling, and circular economy practices.
- Weak enforcement of existing laws and regulations related to waste management and environmental protection, contributing to issues like illegal dumping and inadequate waste processing.
- Gap between the costs incurred and the revenue generated from waste management services makes challenging to sustain operations and invest in necessary infrastructure.
- The funding system for waste management is characterized by the absence of financial incentives for reducing waste or enhancing recycling efforts, as well as effective mechanisms for cost recovery. This results in a lack of motivation for stakeholders to invest in or support waste management initiatives.
- Lack of concrete scenarios and standard models for the implementation of a circular economy
- Lack of investment by the private sector. Without clear financial incentives or a stable regulatory environment, private entities may be hesitant to commit resources to waste management operations or infrastructure development, as well as for the development of circular business models.
- Absence of mechanisms for engaging the public and stakeholders in decision-making processes has limited community involvement and support for waste management initiatives.

## Future narratives

The SWAP Project aims to reduce chemical pollution in the value chain, and improve resource efficiency, by supporting cities towards a zero-waste vision in line with green chemistry, circular economy, and waste hierarchy principles for sustainable production and consumption.

Project interventions broadly seek to:

- Enable conditions and coherent policies to promote integrated planning and programming at city level towards a long-term vision of zero waste and zero pollution.
- Explore special and diverse legal, fiscal and financial steering instruments to promote sustainable investment and cost recovery to address the financial challenges for the transition to a zero-waste city.
- Enhance sustainable production and consumption by encouraging the private sectors adopting BAT/BEP to eliminate harmful chemicals in products, promoting eco-design, sustainable consumption and services, building ecosystem from upstream to downstream for circularity of materials.
- Make information and knowledge accessible for raising awareness to every key stakeholder in the key value chains including producers, retailers, consumers, citizens, waste workers through a whole-of-society approach.
- Build global networks and partnerships on zero waste, provide policy and technical advice through its clearing house, facilitate knowledge sharing, and raise awareness across countries and regions.

Thus, two key axes of uncertainty to guide future narratives can be drawn from drivers that no interventions will greatly affect, one related to the level of climate change and the other related to the economic conditions and level of development. The two key drivers considered are:



- i. Waste Management Systems stressed/shocked due to extreme external events (climate change and/or global pandemic).
- ii. Economic growth, social and productive development, as well as demand for products and services, and waste generation rates.

Narrative 1: Lower extreme external events, Lower economic growth.

With fewer extreme external events, waste management systems are less likely to experience sudden and severe shocks, which allows for more stable and predictable operations, as well as reduced costs associated with emergency waste management measures. Waste management systems can operate more consistently and efficiently without the disruptions caused by extreme events.

Lower economic growth typically leads to less rapid social and productive development. Consequently, the demand for products and services, as well as the rate of waste generation, would increase more slowly. This slower growth can make it easier for waste management systems to keep up with demand and maintain service quality. In addition, lower economic growth may mean fewer financial resources for investing in waste management infrastructure and technology. Municipal budgets might be tighter, leading to potential underfunding of waste management improvements.

In a scenario with lower extreme external events and lower economic growth, the interaction between waste management systems and economic factors is generally more stable and predictable. This stability can be leveraged to make gradual improvements to waste management systems, ensuring they remain effective and resilient. However, careful planning and resource allocation are essential to address the challenges posed by limited financial growth and to take advantage of the opportunities for innovation and efficiency improvements towards a zero-waste city.

Narrative 2: Lower extreme external events, Faster economic growth.

With fewer extreme external events such as severe weather and pandemics, waste management systems will experience fewer disruptions and can operate more predictably and efficiently.

Faster economic growth typically leads to accelerated social and productive development, and increased demand for products and services. This, in turn, may result in higher rates of waste generation, changes in consumption and production patterns. This can put significant pressure on waste management systems, even in the absence of extreme events.

Likewise, faster economic growth can provide more financial resources for upgrading waste management infrastructure, implementing advanced technologies and increase circularity. Governments and businesses may have higher revenues, allowing for greater investment in waste management planning towards zero waste cities.

In a scenario with lower extreme external events and faster economic growth, the interaction between waste management systems and economic factors is characterized by both opportunities and challenges. The stability provided by fewer extreme events allows waste management systems to focus on capacity expansion and efficiency improvements. Meanwhile, rapid economic growth provides the financial resources necessary for significant upgrades. However, careful planning, paradigm shifts in terms of circular economy, and strategic investments are essential to ensure that waste management systems can keep pace with the increased waste generation rates and support sustainable economic development. By integrating sustainable production and consumption practices and leveraging technological advancements, societies can create a resilient and

efficient waste management infrastructure that supports long-term growth and environmental health, towards zero waste cities.

Narrative 3: Faster extreme external events, Lower economic growth.

Increased frequency and intensity of extreme external events, such as severe weather due to climate change and pandemics, lead to frequent disruptions in waste management systems. These events can cause surges in waste generation, operational challenges, and environmental contamination.

Lower economic growth results in less rapid social and productive development. Consequently, the demand for products and services, as well as the rate of waste generation, increases more slowly. However, financial resources for infrastructure and technological upgrades are limited.

In a scenario with faster extreme external events and lower economic growth, the interaction between waste management systems and economic factors creates significant challenges. The frequent disruptions caused by extreme events place a continuous strain on waste management systems, while limited economic growth restricts the availability of resources needed for necessary upgrades and resilience-building.

Addressing these challenges requires a multifaceted approach that emphasizes emergency preparedness, incremental improvements, community engagement, and innovative financing. By focusing on resilience and leveraging technology and data, waste management systems can adapt to the challenging conditions.

Narrative 4: Faster extreme external events, Faster economic growth.

Increased frequency and intensity of extreme external events, such as severe weather due to climate change and pandemics, lead to frequent disruptions in waste management systems. These events can cause surges in waste generation, operational challenges, and environmental contamination.

Faster economic growth leads to accelerated social and productive development, and increased demand for products and services. This may result in higher rates of waste generation, changes in consumption and production patterns, as well as potential greater financial resources for addressing waste management and zero waste challenges.

This scenario faces both challenges and opportunities. The frequent disruptions caused by extreme events and the rapid increase in waste generation due to economic growth place a considerable strain on waste management systems. However, the financial resources generated by economic growth also provide an opportunity to invest in resilient and efficient waste management infrastructure and technologies, as well as in sustainable production and consumption practices towards zero waste cities.

Addressing these challenges requires a multifaceted approach that emphasizes robust infrastructure development, enhanced emergency response capabilities, public-private partnerships, sustainable development policies, technology integration, and community engagement. By strategically leveraging the financial resources and innovation potential brought by economic growth, societies can create waste management systems that are capable of withstanding the impacts of frequent extreme events while supporting sustainable economic development towards zero waste cities.

Across all scenarios, strategic planning, sustainable investment, leveraging technology, community engagement, and sustainable policies are key to managing the interactions between waste management systems with economic growth and frequency of external extreme events. Waste systems and Zero Waste efforts are resilient when mature markets for secondary resources, reusable products and repair services are

ensured, strengthened by risk assessments, adaptation plans, and the inclusion of the informal and private sectors as central components.

## **B. PROJECT DESCRIPTION**

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the guidance document. (Approximately 3-5 pages) see guidance here

### **PROJECT DESCRIPTION**

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements<sup>26</sup> of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the guidance document. (Approximately 3-5 pages). See guidance here\*

The proposed Shifting to Zero Waste Against Pollution (SWAP) Initiative aims to reduce chemical pollution in the value chain and improve resource efficiency by supporting pilot cities in emerging economies and Least Developed Countries towards a zero-waste vision in line with green chemistry, circular economy, and waste hierarchy principles for sustainable production and consumption. Towards zero-waste cities the Project will focus on reducing waste generation as the highest rung of the waste hierarchy ladder. The project is designed as a cost effective and efficient way to address the safe and environmental sound management of daily generated waste in the cities, diverting them away from dumping, open burning, landfilling and incineration without energy recovery, whilst working on upstream, midstream interventions by phasing out chemicals of concerns, designing out waste, promoting sustainable consumption and material recycling towards a circular economy.

The following project's theory of change has been developed which takes into account and include previously identified barriers and challenges to deliver proper interventions and effective actions to address them, encourage expected transformation and achieve project's objective:



Theory of Change figure

**COMPONENT1** This project component's objective is to enable conditions to promote the integrated planning of city waste management towards zero waste cities. The interventions within this component will support the development of policies and governance strategies for city waste management based on reliable and accurate data and incentives to achieve zero waste going to landfills. And consequently, promote and support the adoption of circularity approaches in value chain for different waste streams.

Through this component the project aims to address current waste challenges faced by the cities, but with focus on designing a clear pathway to a zero-waste municipality by building institutional capacity, appropriate governance structure and designing suitable policies, strategies and regulatory frameworks that encourage concrete actions towards sustainable production and consumption, circular economy business models, waste reduction, green procurement, sustainable material management, among others.

**COMPONENT 2:** This project component's objective is to explore different legal and financial steering instruments to address the financial challenges for the transition to a zero-waste city, including the introduction of extended producer responsibility and the use of economic instruments such as different forms of taxes, cost recovery methods, incentives and differentiated waste tariffs. It will also analyse optimal financing instruments to cover the cost of municipal solid waste management, focusing on ways to create an ecosystem in the value chain, foster circular business models and public-private partnerships, covering investments in the key infrastructure and daily operational costs. Municipalities will be encouraged to develop green finance mechanism and issue green bonds when appropriate, to support necessary investments in the infrastructure towards zero waste and circular business. In addition, bring in strategic investors including international, regional, and national financial institutions, bilateral donors, and impact investors. Lastly, it will support developing an investment plan and engage with stakeholders and investors for the partnerships.

**COMPONENT 3:** This project component's objective is to support manufacturers in introducing life cycle assessments (LCA) throughout the value chain and set innovation targets for the design and scale-up of safer, more sustainable products (e.g. eco-design), production processes and services to improve resource efficiency (e.g. sustainable materials management), phase out the use of chemicals of concern and lower the impact of products and processes, including at the end of life.

To sustain changes in production, a proper engagement with civil society organizations at the community level to build knowledge for consumers and help create consumer demand for green and sustainable chemicals and products is required. The sustainable consumption will be also encouraged through the introduction of eco-labelling of products/services, green packaging, and

certification tools among others, which ensure products and services meet environmental standards throughout their entire life cycle: from raw material extraction through production and distribution to disposal. These tools, likewise, encourage companies to develop innovative products and services.

This Component will contribute to build the knowledge and the information to be shared with civil society in a timely manner to promote behavioral change (linked to Component 4).

**COMPONENT 4:** This project component's objective is to make knowledge accessible for raising awareness of every key stakeholder, including the informal sector, in the waste management chain. Awareness raising and incentives will encourage behavior change of consumers and waste generators and effectively support the transition to a zero-waste city. Lastly, it will ensure mechanisms to promote sustainability, replication and scaling up of obtained results.

**GLOBAL COMPONENT:** The global component will conduct the function of coordination, communication, learning and knowledge management of SWAP Initiative, and support a zero-waste clearing house and zero waste financial platform and partnership.

The Zero waste clearing house will serve as a platform to build network and partnership on waste management, provide policy and technical advice, facilitate knowledge sharing, and raise public awareness. It will support the activities included in the five locations participating in Outcomes A-D. Through partnerships established with experts in this area<sup>27</sup>, the clearinghouse will provide a one-stop-shop to address questions on city solid waste management. This clearing house will be supported by the partnership established between UNDP and Avfall Sverige (The Swedish association for the waste management and recycling)<sup>28</sup>. It will aim to develop partnerships across the city waste management network such as ISWA, regional and national waste association and reach out to city policy makers (mayors), showcase the positive impacts to avoid redundancy and accelerate the zero waste movements globally. This component will be a fully global one and will be executed by UNDP's global Chemical and Waste Hub in partnership with Avfall Sverige (responsible party), while benefitting from the expertise of UNDP's Sustainable Finance Hub.

The zero-waste financial platform and partnership aims to support cities to address their financial challenges and connect them with global and regional investors. Furthermore, SWAP aims to build a zero-waste enabling facility through partnerships for the technical assistance to the investment and help the capacity building of innovative and diverse financial approach at the city level. Finally, the SWAP Initiative will support the partnership with other UN agencies and relevant global and regional thematic platforms, city network, and promote zero waste initiative globally.

Periodically monitoring and evaluation activities will be conducted during project implementation to ensure the project effectively achieves its results. Best practices, project experiences and lessons learned obtained through adaptive management processes and evaluations will be incorporated in knowledge management tools for easy distribution at local, national, regional, and global levels.

### **Key assumptions**

The project strategy is based on the following assumptions that will be of great importance for achieving expected changes and results. These assumptions can be found in detail in Section VI "Project Results Framework", and the main ones can be summarized as follows:

National and local Governments in the related countries and municipalities commits to encourage coordination among competent authorities for promoting the zero-waste strategy in line with green chemistry, circular economy, and waste hierarchy principles for sustainable production and consumption.

Governments and producers are willing to legislate, implement, regulate, and deliver based on the waste hierarchy, starting with waste prevention.

Key Stakeholders, mainly the private sector and financial institutions, are willing to participate and receive training and capacity built in the promotion and adoption of circular solutions for prioritized waste streams and are willing to participate in their reduction and in their environmental sound management.

The industry maintains a strong ambition to phase out chemicals of concerns within their processes and increase circularity of products.

Participation and investment by the private sector, as decisions taken by product designers and manufacturers ultimately and directly influence waste generation.

Local communities, including vulnerable groups, are willing to participate in the implementation of activities and are motivated for behavior change around waste reduction and waste segregation.

A collaborative approach to policy making that is sustained and continuously improved, integrating gender related issues across the implementation of the proposed activities.

Collecting the lessons learnt would foster continuous improvement during the implementation phase and assisting in the development of innovative demonstration approaches and testing for other similar implementations elsewhere after the project's completion.

## COMPONENT 1: INTEGRATED PLANNING AND PROGRAMMING

### OUTCOME A: Zero Waste framework and action plan implemented by municipalities.

#### Output A.1. Waste Management Plan, Zero Waste Strategy and Governance Structure established.

Through this Output the project will support each of the cities in developing and implementing Waste Management Plans based on local context assessment. Waste Management Plans (WMP) are key to identifying waste flows and their composition (including hazardous waste available in cities such as POPs/Hg containing waste), setting, and defining targets for waste reduction and recycling, and identifying and clarifying the various responsibilities for each of the involved stakeholders (public and private). In a Waste Management Plan the waste management system in place must be described as detailed and complete as possible, in order to identify existing challenges, problems, obstacles, as well as opportunities for improvements. Cities will be supported in identifying and if applicable aligning indicators and data collection mechanisms through standard indicators, including from best practices and international standards. Waste management planning is complex as it includes financial, institutional, organizational, and social aspects that need to be addressed simultaneously. Furthermore, for a waste management plan to become successful it is necessary to clearly define its implementation plan and ensure close follow-up throughout by monitoring progress.

Based on previous assessment and Plan, the project will also support the cities in developing its Zero Waste Strategy which will contribute to set the detailed pathway towards zero-waste cities. Within the strategy, clear and thoughtful targets, metrics, timelines, and direction will be established to industry and government can better align motivations and behaviors towards the goal of zero waste. Maturing measures of success beyond diversion rates to those which measure a reduction in total waste generated will be considered, to shift community focus to reducing unsustainable consumption patterns. Further, greater emphasis on reuse and resource circularity measures, targets and directions will be introduced, which prioritize the use of resources to their highest best use in line with waste hierarchy principles, instead of defaulting to landfill and energy recovery options. The development of the strategy will also consider expected growth rates in the city, potential changes in city waste composition, gender dimensions as well as informal sector linked to waste management integration. Complementary, the development of the Zero Waste Strategy will consider and integrate climate-related risks (such as extreme weather events, like extreme heat<sup>[1]</sup>, and their impact on waste infrastructure and operations), and measures to address them.

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[1] [UN Secretary-General's Call to Action on Extreme Heat](#)

This activity will also promote and enhance institutional coordination for zero waste under the mayor's leadership. For this purpose, a steering committee will be established, and suitable coordination mechanisms will be defined. This committee will improve cooperation and coordination among local and national key stakeholders and will serve as a mechanism for the exchange, collection, and analysis of information for the development of the Waste Management Plan and the Zero Waste Strategy, enabling also the execution of the related action plans. The Committee may also act as the informing body for the development of the required policy, legal and regulatory framework to support waste management and the uptake of circular economy principles under Output A.4.

Community Associations and Civil Society, in particular women's groups, engagement will be sought during the plan and strategy development in order to enhance a strong relationship and build trust. In addition to develop correct plans and effective monitoring, accurate data is needed. For that purpose, cities will define indicators and data collection mechanisms that ensure information availability and transparency.

The project will encourage the inclusion of women's groups and relevant government bodies in development of strategies and in steering committees and coordination mechanisms.



## Uruguay – Metropolitan area (San José, Canelones, Montevideo):

The following activities will be developed to reach Output A.1:

a. Support and strengthen institutional coordination between the National Waste Management Plan (PNGR) and each of the Municipal Waste Management Plans in the metropolitan area. This activity aims to support municipalities to meet the strategies outlined in the PNGR and embracing a zero waste to landfill approach at metropolitan scale. The PNGR outlines goals for regulatory development, policies, and municipal actions up to 2032. Specifically, the following will be supported:

- Metropolitan area Zero Waste Strategy developed: this activity will support the development of the zero-waste strategy for the metropolitan area. This strategy will consider a multisectoral approach and will design a clear pathway towards the goal of zero waste cities to be implemented in each of the municipalities (Montevideo, San José, Canelones). The strategy will include targets, metrics, timelines, and clear responsibilities for every key stakeholder (government, industry, society, etc.) and will encompass actions for every available waste streams within the municipalities (household, industrial, commercial, packaging, WEEE, organic, construction, among others). Its design will take into consideration gender dimension on waste management, the role of the informal sector within the waste management chain and the environmental education and participation of the population. The key points to be considered in the strategy will include: encourage actions in the different economic sectors to reduce waste generation, increase levels of waste collection in general, reuse and recycling of materials (glass, cellulose, plastic and scrap metal), phase out chemicals of concern, increase capacity for organic collection and recycling, among others and reduce landfilling. In addition, the development of the Strategy will include the assessment and definition of suitable financing mechanisms for its effective implementation.

The Strategy will adopt Strategic Environmental and Social Assessment (SESA) principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the Environmental and Social Management Framework (ESMF) that has been prepared for the project.

- Metropolitan Area Waste Valorization Plan developed: this activity will support the development and alignment of the metropolitan area Waste Valorization Plan. This plan involves assessing technological alternatives and business models to enhance waste recovery, reduce landfilling of household waste, and establish a corresponding development plan. This process includes conducting technical and financial feasibility analyses for the integration of alternative technologies.

This Plan will adopt SESA principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the ESMF that has been prepared for the project.

- Institutional coordination mechanism strengthened: currently there is a technical and political coordination mechanism between the Ministry of the Environment and the Departmental Municipalities within the framework of the development of the Integrated Waste Management Law and the PNGR. This activity will strengthen the current existing mechanism and will favor the exchange, collection, and analysis of information in line with the Waste Management Plans and the Zero Waste Strategy in the metropolitan area to support the design of effective public policies in coordination at the national and departmental/local levels.

b. Montevideo's five-year Action Plan (roadmap for the implementation of the Municipal Waste Management Plan) developed: Currently, the municipality of Montevideo is developing its Departmental Waste Management Plan. The key aspects included in the plan are the minimization of waste generation, the improvement of the urban collection and cleaning system, and the increase in waste recycling. This activity will support the development of the five-year action plan, with emphasis on actions aimed at zero landfilling. The plan will include, among other aspects: i) reduction of waste generation at source; ii) Increasing the coverage of organic waste management in Montevideo Urbano at the intra-household or community level; iii) the increase in the coverage of differentiated collection of recyclables in Montevideo Urbano, iv) sustainable waste management with social inclusion, focusing on zero-emission transportation companies; v) strengthening of information systems, data collection and indicators for the different waste streams.

This activity is aligned with the National Waste Management Plan and with the Metropolitan Area Zero Waste Strategy. The plan will reflect commitments to gender mainstreaming and methods for gender integration. Additionally, will consider the experiences and barriers specific to marginalized women from various social groups, including Afro-descendant women and migrant women, in their roles or challenges within waste management structures.

This Plan will adopt SESA principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the ESMF that has been prepared for the project.

c. Canelones' five-year Action Plan (roadmap for the implementation of the Municipal Waste Management Plan) strengthened and updated: the Municipality of Canelones has a municipal Waste Management Plan (2020-2025). This plan is based on the principles of circular economy, and its objectives and actions contribute to the minimization, recovery, and valorization of waste, as well as to the creation of green jobs. This activity will strengthen the updating and the implementation of the current action Plan, in particular along the following lines: i) Development of performance indicators for the 'Sustainable Homes Programme' and support for the measurement of GHG reduction linked to the improvement in waste management system; ii) Strengthening the governance of the Municipal Waste Council, a space for exchange and feedback on the implementation of the plan, with the participation of relevant stakeholders such as ministries, business chambers, social organizations, academia, among others.; ii) Strengthen actions in the commercial sphere and other economic activities in order to reduce the waste landfilling.

This activity is aligned with the National Waste Management Plan and with the Metropolitan Area Zero Waste Strategy. The plan will reflect commitments to gender mainstreaming and methods for gender integration. Additionally, will consider the experiences and barriers specific to marginalized women from various social groups, including Afro-descendant women and migrant women, in their roles or challenges within waste management structures.

This Plan will adopt SESA principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the ESMF that has been prepared for the project.

d. San José's five-year Action Plan (roadmap for the implementation of the municipal waste management plan). The Municipality of San José is currently developing its Municipal Waste Management Plan. This activity will support the municipal government in the development of the five-year Action Plan, which among others will include the following lines of action: i) Funding mechanisms and budgetary provisions for the implementation of the Municipal Waste Plan.; ii) Development of actions in the commercial sphere and other economic activities in order to reduce the waste landfilling. Iii) Design of actions linked to household waste in the different localities to reduce waste generation, increase segregation at source, recycling and reduce waste landfilling.

This activity is aligned with the National Waste Management Plan and the Metropolitan Area Zero Waste Strategy. The plan will reflect commitments to gender mainstreaming and methods for gender integration. Additionally, will consider the experiences and barriers specific to marginalized women from various social groups, including Afro-descendant women and migrant women, in their roles or challenges within waste management structures.

This Plan will adopt SESA principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the ESMF that has been prepared for the project.

e. Strengthen Waste Electrical and Electronic Equipment (WEEE) decree management systems implementation in the metropolitan area (particularly to those aimed at promoting the formalization of the scrap value chain). The WEEE decree regulation is expected to come into force in 2024. This regulation aims to implement the Extended Producer Responsibility (EPR) system for EEE of general use (both households and economic activities) and a generator responsibility system for EEE used in certain economic sectors (e.g., health and industrial equipment). Aligned with circular economy principles and sustainable consumption, the WEEE regulation emphasizes minimizing waste generation by promoting activities such as repair or refurbish to extend the useful life of products.

To support the strengthening of the regulation implementation in the metropolitan area, this activity will support the development of local capacities for product design including less harmful components, collection system, repairing, recycling on WEEE in the region, with focus on formalizing the processes of actors currently involved within the WEEE management value chain. Mechanisms for proper monitoring and control the regulation implementation will be defined and implemented for every stakeholder covered by the regulation. In addition, technical guides will be developed for the different actors within the value chain, and technically assisted for the different implementation phases, in particular the development of the WEEE management Plans.

This activity will promote equal opportunities for women and men to participate in capacity training for collecting, repairing, recovering, and WEEE. It will also emphasize the role of both women and men at every stage of the value chain in technical guides and include targets to enhance their wellbeing.

It's important to highlight that the adoption of a new regulation in Uruguay requires a minimum three-year period with active participation from the Ministry of Environment and municipalities. This includes activities of coordination, promotion, communication, and monitoring.

c. Strengthen Packaging Management Plan (PGE- Plan de Gestión de Envases) management and control systems in the metropolitan area. Develop capacities for the control and monitoring of packaging waste.

Uruguay has implemented packaging recovery systems under the Extended Producer Responsibility (EPR) scheme since 2007. In 2021, the Ministry of Environment established new targets for packaging recovery, expanding the scope to additional products such as single-use plastic items (e.g. trays and films). The Packaging Waste Management Plan (VALE Plan) was revamped aligned to the new targets, emphasizing the enhancement of selective collection, recovery systems, and the introduction of a deposit-refund system for the beverage sector. This activity aims to reinforce the management and control systems of the packaging management plans, focusing on importers, manufacturers, and brand owners of the covered products. Control and monitoring activities include annual audits, financial issues such as cost coverage, information processing (affidavits), and identifying deviations, with a specific emphasis on the metropolitan area. The project will prioritize strengthening control efficiency for the involved parties and incorporate material recovery audits to promote circularity across different materials.

Moreover, the project will enhance the Ministry of Environment's capacities for executing actions related to the deposit-refund system, including coordination and control integration with the entire commercial beverage sector. Information flow will be strengthened with various involved organizations, integrating data from both the public and private sectors. The associated costs for importers and producers of packaged products, resulting from the new plan, will support actions for reducing packaging and material substitution. The project will contribute to building the Ministry of Environment's capacities in this regard.

As part of this activity, ongoing efforts by the Ministry of Environment to reduce single-use plastics, such as the certification named 'Single-Use Plastic Challenge', will be reinforced.

#### **China - Tianjin:**

The following activities will be developed to reach Output A.1:

a. Tianjin Waste Management Plan and "Zero Waste City" Strategy developed.

This activity will include:

- Conduct on-site assessment for the development of the Waste Management Plan and 'Zero Waste City' Strategy in Tianjin. The assessment will take into account the existing environmental protection infrastructure, the composition and material flow of every stream of solid waste, such as general industrial solid waste, hazardous waste, agricultural waste, municipal solid waste, food waste, electronic waste, construction waste, healthcare waste and recycled materials, among others. Development of the plan and strategy will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

As a result, existing challenges, problems, obstacles, and opportunities for improvement for each stream of solid waste will be identified, and put forward a Waste Management Plan, including models and proposals, as well as monitoring mechanisms, aligned to the Tianjin local context. This Plan will focus primarily on waste reduction, reuse and recycle in mapped and assessed waste streams.

- During the 15th Five-Year Plan Period, a Work Programme for the Zero Waste City Strategy will be prepared for Tianjin. This includes setting clear goals, formulating lists of responsibilities, tasks, and projects, with a clear timetable and roadmap to achieve the zero-waste goal in Tianjin. The Five-Year Plan will reflect commitments for the Development of Women in Tianjin in the work programme. The development process of this Work Programme will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

Under the work programme approaches will be defined to improve women's participation and decision making in projects, including enforcement of recent laws on non-discrimination in the workplace, development of an anti-harassment policy, gender quotas, etc.

b. Establish a steering committee for the 'Zero Waste City' in Tianjin and set up a cross- departmental coordination mechanism for the development of the 'Zero Waste City'. Within the committee the formulation of an indicator system for the 'Zero Waste City' development in line with the baseline situation and development of Tianjin will be defined and implemented.

This committee will be responsible for guiding/overseeing the entire process of the 'Zero Waste City' development and ensuring that all relevant departments work together seamlessly. The cross-departmental coordination mechanism to ensure that progress is made efficiently and effectively.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output A.1:

a. Kocaeli's Waste Management Plan and Zero Waste Strategy developed.

This activity will support the updating and improvement of the Kocaeli's Zero Waste Management System Plan and the related Waste Management Plan. Additionally, these Plans will provide support for the development of the National Zero Waste Management Action Plan.

For that purpose, waste flows and their composition will be identified and assessed, and accurate targets for waste reduction, reuse and recycling will be defined. The identification of each stakeholder as well as the definition of responsibilities will be ensured and mechanisms for monitoring progress will be defined and implemented. Gender mainstreaming commitments and goals will be reflected in the related plans.

This activity will include the following:

- Update and develop the Kocaeli Zero Waste Management Plan. The Plan will adopt SESA principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the ESMF that has been prepared for the project.
- Update and develop the Kocaeli Integrated Waste Management Plan. The Plan will adopt SESA principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the ESMF that has been prepared for the project.
- Provide technical inputs to the Ministry of Environment, Urbanization and Climate Change (MoEUCC), based on the previous Plans, to support the development of the National Zero Waste Management Action Plan. In addition, support will be provided to review and update existing national guidelines for developing Zero Waste Management Plan in municipalities and industries.

For the updating process this activity will coordinate consultation with key stakeholders, ensuring the involvement of women's groups.

b. Strengthen existing institutional coordination mechanism 'Zero Waste Coordination Board' to improve exchange, collection, and analysis of information, as well as enabling the effective implementation of the Kocaeli's Zero Waste Management Plan and Integrated Waste Management Plan.

#### **Sierra Leone- Freetown:**

The following activities will be developed to reach Output A.1:

- a. Support the development of the Freetown Waste Management Plan and Zero Waste Strategy.

This activity will support the assessment of current wastes flows available in Freetown as well as their composition and volumes (for this purpose, the use of existing UN Habitat Tool will be considered). This assessment will ensure the identification of strengths, weaknesses, opportunities, and threats of current system (including collection rate and coverage, sorting at source, treatment, and disposal, as well as informal sector activities) from a financial, institutional, organizational, and social perspective. The different concerns of women and men in various social groups will be also considered.

As a result, a Waste Management Plan will be developed, setting a clear action plan, including the definition of suitable targets, to improve current waste management system with clear responsibilities of every relevant stakeholder. This activity will ensure that employment and decision-making targets reflect the gender quotas and non-discrimination actions outlined in the Gender Equality and Women's Empowerment Act of 2022. This Plan will adopt SESA principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the ESMF that has been prepared for the project.

Complementary and based on the assessments conducted within the Freetown Waste Management Plan, this activity will support the development of the E-Waste Strategic Plan for Freetown.

In addition, this activity will support the updating of the Integrated National Waste Management Strategic Plan 2012-2016.

Aligned to the Freetown Waste Management Plan, the Zero Waste Strategy will be developed, with the detailed pathway towards zero-waste. Within the strategy, clear and thoughtful targets, metrics, timelines, and direction will be established to industry and government can better align motivations and behaviors towards the goal of zero waste. This Strategy will adopt SESA principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the ESMF that has been prepared for the project.

- b. Strengthen Governance Structure and ensure institutional coordination mechanism.

This activity will assess existing governance structure and responsibilities for Freetown Waste Management, understand existing overlapping's, barriers and/or gaps and develop a proposal of Governance Structure to ensure the effective implementation of Waste Management Plans and related policies and legal frameworks.

As per the coordination mechanism, this activity will build on an existing multistakeholder platform "Waste Coordination Pillar" which is constituted by government authorities (national and local), CSO and civil society. The project will strengthen this platform to ensure the effective implementation of Waste Management Plans and Zero Waste Strategy to be developed within the Project implementation, and will ensure the exchange, collection, and analysis of related key information.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output A.1:

##### **a. Develop a Regional Waste Management Plan and a Zero Waste Strategy for Greater Tunis.**

This activity will support the baseline assessment of the waste management situation in each of the governorates in Greater Tunis. The analysis will encompass institutional, financial, technical and legal assessment as well as identified waste volumes and flows available in Greater Tunis.

As a result, a Regional Waste Management Plan based on the Zero Waste approach will be developed in Greater Tunis. These Plans will consider existing Communal Plan for Waste Management (PCGDs) of the municipalities of the Greater Tunis and will encourage cooperation between the municipalities (intermunicipal cooperation) of the 4 governorates of Greater Tunis with the aim of improving household and similar waste management services and putting in place measures to strengthen circular economy towards minimizing waste landfilling.

This activity will ensure women's groups, associations, and relevant ministries or government bodies are included in development of the Regional Waste Management Plan and Zero waste Strategy for Greater Tunis.

The Zero Waste Management Plan and the Zero Waste Strategy will adopt SESA principles to ensure that potential environmental, economic and social risks that may be associated with their implementation have been considered. This process is described in more detail in the ESMF that has been prepared for the project.

##### **b. Support the creation of an institutional coordination mechanism.**

This activity will support the creation of an institutional coordination mechanism between the governorates of Greater Tunis. This mechanism will improve cooperation and coordination among local and national key stakeholders and will serve as a mechanism for the exchange, collection, and analysis of information for the development of the Regional Waste Management Plan and the Zero Waste Strategy for Greater Tunis, enabling also the execution of the related action plans.

#### **Output A.2. Capacity built in cities/municipalities/institutions related to the life cycle management of chemicals and wastes.**

Through this Output the project will contribute to build capacity of key stakeholders to ensure their technical capacity and expertise to support necessary interventions for shifting to the zero-waste and zero-pollution society. Training and capacity building need to be provided on a regular basis to ensure that those personnel responsible for policy making, project review, processes monitoring, technology innovations, products design, law enforcement, and waste management have updated knowledge, data and tools for improvement of the management. This will result in strong institutions that will be able to address challenges and root causes towards zero waste cities, with focus on reducing waste generation as a first step.

Training and capacity building activities will ensure equal participation of women and men, as well as the collection of gender disaggregated data collection and analysis.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output A.2:

##### **a. Develop the municipal waste management module of the Single Integrated Waste Information System (SUIR-Sistema Único Integrado de Información sobre residuos).**

The Single Integrated Waste Information System (SUIR) is conceived as a resource to gather, process, and make available information on waste management at the national, municipal, and metropolitan levels to monitor the progress and objectives of the PNGR. It is open data, and an indicator system linked to other information systems, such as those on waste management at the municipal level. The information displayed in this system will encompass environmental, social, and economic dimensions of waste



management. It will be integrated with the National Environmental Observatory (OAN)<sup>29</sup> which is the environmental information platform of the Ministry of Environment.

The Single Integrated Waste Information System will be composed of various thematic modules and is currently in a pre-design phase. Through this activity, the project aims to develop and implement the module on household waste, involving conceptual design, application development, and implementation. This module will provide information on waste management at the municipal level and will facilitate the exchange of information between the Ministry of the Environment and the municipalities on household waste management. It will host information on the generation and management of household waste, allowing for real-time monitoring of landfilling, with an interconnection with the scales of the sanitary landfills of the three municipalities. It is a key instrument to control the entry of waste, with the objective of reducing waste generation and landfilling. Although the module will be for internal use by the municipalities, part of the information will be freely accessible to the public. This activity also includes training for system users.

b. Develop remote sensing tools to control waste open burning, and identify hot spots associated with informal waste dumps.

The Ministry of Environment currently has a technical team that is specialized in the use of technological tools for processing satellite images for environmental purposes (OAN). The objective of this activity is the development of information technologies through the processing of satellite images, using machine learning, to detect and monitor uncontrolled waste burning, and endemic uncontrolled dumpsites in the metropolitan area. This activity also includes training of key government officers.

c. Train technical teams from the Ministry of Environment and the municipalities involved in the project.

Teams from the municipalities and the Ministry of the Environment will receive training on Best available technologies (BAT) and Best Environmental Practices (BEP) to minimize waste landfilling, in line with the waste hierarchy principles, and to support the effective implementation of the Municipal Waste Management and Action Plans, as well the Metropolitan Zero Waste Strategy. The training will also tackle environmental and social risks associated with waste management and best practice on addressing them. Additionally, educational field trips to cities that have successfully implemented zero waste models will be organized, in particular women-led enterprises and groups or gender-responsive zero-waste efforts will be identified and highlighted (e.g., Montevideo Integra, Volver a la Vida Cooperative, the Canelones Es Igualdad Fund, and 'Juntas por más' Agricultural Cooperative.)

#### **China - Tianjin:**

The following activities will be developed to reach Output A.2:

a. Information platform for the management of the entire life cycle of solid waste in Tianjin (including waste generation, declaration, approval, transport, disposal and other processes in the whole life cycle of solid waste management).

Build a 'one network' platform for solid waste management information, establish a data collection mechanism, and improve the scope, calibre, classification and methodology of solid waste statistics. It also carries out visual, digital and intelligent management of all aspects of solid waste production, declaration, approval, transport and disposal, so as to achieve digital management of the entire life cycle of solid waste. The Tianjin EEB and related management departments have the authority to supervise and manage. With this platform in place, it will be possible to achieve a more sustainable and efficient management of solid waste. It will enable better decision-making, facilitate the implementation of innovative and cost-effective waste reduction strategies in line with the Waste Management Plan and the Zero Waste Strategy in Tianjin.

The platform will ensure data collected about personnel in waste management are gender and age disaggregated, and data on women and men working in formal and informal waste management is incorporated.

Finally, training of the platform users will be supported.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output A.2:

a. Provide technical support to plan hazardous chemicals and waste management within the municipal waste streams to support the effective development and implementation of the Kocaeli's Zero Waste Management Action Plan. This activity will include the following:

- Identify municipal waste fractions (such as oils, electrical and electronic equipment, scraps, batteries, textiles, among others) that may contain hazardous chemicals (including POPs, candidate POPs, Hg). Define the action plan for its environmental sound management. This will be integrated within the Kocaeli's Integrated Waste Management Plan.



- Provide technical inputs, based on previous assessment (which adopt SESA principles), to support the development of a National Plan for Hazardous Chemicals Management.

It will be ensured that gender differentiated concerns and exposure risks of hazardous chemicals at household, community, and workplace levels are included in the action plans.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output A.2:

- a. Capacity building to local government for effective planning and implementation of the legal framework on waste management. This activity will design and implement a capacity building programme for key governmental authorities to ensure the effective implementation and monitoring of developed Waste Management Plan and Zero Waste Strategy in Freetown, as well as effective implementation of existing and to be developed related legal frameworks. Gender Equality Act and relevant legal frameworks (including commitments to key international conventions) in level framework capacity building will be included. The training will also tackle environmental and social risks associated with waste management and best practice on addressing them.
- b. Strengthen the existing environmental courts for Sierra Leone. There is an existing environmental court under the judiciary system to deal with environmental related matters including waste management, this activity will strengthen its capacities to effectively enforce existing related legal framework.
- c. Strengthen the fleet data management system for Freetown City Council to monitor waste collectors. Currently the collection tracking is being made in a manual way which hinders the systematization of information, monitoring and improvement. This activity aims to build a digital system to enhance the collection data (gender and age disaggregated will be considered) as well as its improvement.

#### **Tunisia - Greater Tunis:**

The following activities will be developed to reach Output A.2:

- a. Develop a national capacity building program for government officers' decision-makers, at national and local level, on the following topics:
  - Training of trainers on the development of a municipal/regional waste management plan: The training aims to train decision makers at municipal level on how to develop accurate municipal plans for waste management and on tools for monitoring the implementation of planned measures. The training will also tackle environmental and social risks associated with waste management and best practice on addressing them. In addition, the key role and responsibilities of municipalities in supporting Regional Waste Management Plan and Zero Waste Strategy-Action Plan in Greater Tunis will be strengthened.
  - Chemicals and Waste International Conventions: The training aims to strengthen decision makers at national and local levels on the international treaties and it's effective implementation and alignment in Greater Tunis. It will consider Stockholm, Minamata, Basel and Rotterdam Convention, as well as Plastics Intergovernmental Negotiating Committee meetings.
  - Waste treatment and recovery technologies: The selection of suitable waste treatment technologies remains as one of the main problems for decision makers in Tunisia. The training will aim to strengthen technical capacities of related government authorities to be able to select and ensure the proper operation of the best technologies based on local context.
- b. Cost Calculation Tools Programme for municipalities and governorates of Greater Tunis.

In order to provide their services in the best possible way, proper cost accounting and management has become a critical issue for Tunisian municipalities. The use of different municipal solid waste schemes increases the complexity of waste management operations and complicates evaluation of the costs. In fact, Tunisian municipalities needs reliable data on the different operations costs to support decision making (the impact of women's unpaid roles in waste management and the informal workforce in cost will be considered).

The program aims to strengthen local government capacities to calculate waste management costs (CapEX and OpEX), as well as it's proper monitoring to ensure the effective implementation of the Regional Waste Management Plan. The program will present different cost models, that concerns in particular the waste collection and transportation costs, the waste sorting at source cost calculation.

#### **Output A.3. Green procurement guideline developed and implemented.**

Through this Output the project will develop regulations and standards at national and city level to introduce green procurement practices with sustainable products and services.

Pursuing green procurement, starting with the public spending of public entities including cities, could start to drive new markets for greener products and services that will avoid waste or generate minimal waste. Government entities and cities have considerable purchasing power, employ a large workforce and operate facilities across the city. Their size and presence make these entities a contributor to the amount of waste generated and an influencer in the community. Through developing appropriate policies, government entities and cities can influence others wishing to sell green products or services, which can lead to a reduction in waste, efficient resource management and shifting their own facilities and operations to achieve zero waste targets. Additionally, green procurement within the private sector (manufacturing and services industries) will be also encouraged. Purchasing serves as a boundary-spanning function within firms and provides an advantageous position based upon which a firm can create conditions for innovation and behavior change aligning with Environment, Social and Governance principles.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output A.3:

- a. Encourage sustainable public procurement in the metropolitan area. Establish high-impact procurement guidelines to promote sustainable production and consumption in the private sector.

Aligned to the Decree 402/018 concerning the sustainable Public Procurement Policy the Ministry of Environment is collaborating with the State Procurement Regulatory Agency (ARCE) to establish sustainable public procurement criteria (technical standards) for high-consumption products used by public entities. These include computers, printers, and single-use plastic products. This activity aims to effectively implement sustainability criteria in public procurement across the three municipalities of the metropolitan area. It also seeks to set new criteria for other products, considering best international practices in sustainable public procurement. As part of this effort, studies will be conducted to assess the impact of incorporating sustainability criteria into municipal purchases for subsequent implementation. Furthermore, officials will receive training on existing mechanisms.

Its effective application will be encouraged through demonstration projects, which will include gender criteria and outcomes, in at least 1 (one) public institution per municipality and at least 2 (two) at national level.

#### **China - Tianjin:**

The following activities will be developed to reach Output A.3:

- a. Analyze the current status and problems of green procurement in public procurement and the private sector (mainly manufacturing and service industries) in Tianjin. Formulate and improve green procurement measures.

Based on the existing international green procurement guidelines and knowledge, analyze the current status and problems of green procurement in public procurement and the private sector (mainly manufacturing and service industries) in Tianjin. Put forward 1 green procurement certification guidelines, establish a green procurement certification process, and carry out the green procurement certification for at least one (1) public institution based on the green procurement certification guideline. The public institution to be selected should include efforts to empower women and promote equality.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output A.3:

- a. Green Public Procurement Strategy at Kocaeli. This activity will support the development of a roadmap for municipalities to develop a strategy on green public procurement. This roadmap may include: i) Identifying the factors/barriers that prevent the spread of green public procurement; ii) Determining the priorities of the institution in their procurement processes, iii) Determining the sustainable criteria (environmental, economic and social (ensuring gender considerations)) to be included in the procurement processes to ensure Green Public Procurement, iv) raising awareness and training of the institution's employees about green public procurement.

- b. Implement sustainable public procurement criteria for at least 2 high-consumption products used in municipalities.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output A.3:

- a. Support Green Procurement Guidelines development.

This activity, based on existing guidelines at international level, will develop suitable guidelines for green procurement in Freetown. For that purpose, sustainable criteria (environmental, economic and social (including gender criteria)) will be defined to be included within the public procurement processes. Government officers will be trained in these guidelines to encourage its effective implementation, gender mainstreaming within the training will be included.

In addition, this activity will evidence the implementation of these guidelines in at least one public institution in Freetown.

Within the green procurement guidelines, the project will support the assessment of suitable alternatives to existing fire extinguishers which most of them are containing POPs flame retardants. This activity will be developed in close coordination with the safety force. As a result, sustainable procurement specifications/standards for these products will be developed and properly introduced within the public procurement processes. In addition, mapping of existing fire extinguishers containing POPs will be conducted and an action plan for its gradual replacement as well as its proper sound treatment and disposal will be developed.

Lastly, in line with the demonstration activity in Output C.1, the development of sustainable procurement specifications/standards for healthcare waste treatment equipment will be ensured.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output A.3:

##### **a. Support Sustainable Public Procurement in Greater Tunis.**

This activity will support the implementation of the National “Sustainable Public Procurement” Guidelines in Greater Tunis. These guidelines are currently being under development and are estimated to be published at the beginning of 2025. This activity will encourage the review of this National Guidelines in terms of gender considerations and provide suitable recommendations.

This activity will also consider the “Exemplary State” decree (currently under development by the Ministry of the Environment) which included the National “Sustainable Public Procurement” Guidelines and aims to change the behavior of the public sector in terms of procurement strategy and engagement in the sustainability practices.

Within this activity the project will support the implementation of the National Sustainable Procurement Guidelines in at least four (4) public institutions in Greater Tunis. These demonstrations aim to identify the main challenges and best practices in relation to the enforcement of the guidelines in other public institutions.

#### **Output A.4. Policy, legal and regulatory framework to support waste management and uptake of circular economy principles improved.**

Through this Output the project will support the development of the required policy and regulatory frameworks, which play an essential role in reducing waste generation rates, increasing recycling rates, promoting circular economy business models, and improving the sound management of residual waste. Both national and local governments play a role in defining the regulatory framework within which solid waste management services and circular economy approaches can be developed and promoted in a complementary and coherent manner. This is obviously key in triggering private sector engagement. Coordination will be ensured to guarantee consistency between the different levels of government and stakeholders.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output A.4:

##### **a. Strengthen commercial waste regulations to make progress in reducing waste generation and zero landfilling.**

This activity encompasses the formulation of regulations governing the management of commercial waste and the enhancement of control mechanisms for commercial waste management in the metropolitan area municipalities. The regulatory framework for commercial waste management will emphasize efforts to minimize waste generation and enhance its reuse and recycling. Within the regulatory framework assessments, including potential economic impact on the private sector and in particular MSMEs, will be conducted for the potential implementation of restrictions or bans on plastic products and packaging. In addition, prohibiting the disposal of recyclable materials (based on national recycling capacities) in sanitary landfills will be considered.

##### **b. Support the development/updating of legal instruments as a result of the taxation instruments assessment for the formalization of the waste marketing chain (linked to Output B.1).**

c. National and municipal regulations harmonized: this activity will support the assessment of municipal regulations related to the Waste Management Plans and Circular Economy promotion and proceed to harmonize them with national policies and legal frameworks, including gender commitments.

#### **China - Tianjin:**

The following activities will be developed to reach Output A.4:

a. Based on the current situation and problems of POPs waste management, formulate general technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants in China.

Based on Tianjin's practice of environmentally sound management of POPs waste, including UV-328 and Brominated Flame Retardants (BFRs), as well as the requirements and guidelines for POPs waste management under the Stockholm Convention, evaluate the policy gap in China's POPs waste environmental management, and develop POPs waste management guideline, gender-disaggregated impacts and exposure risks for POPs in waste management guidelines will be considered.

b. Formulate the EPR standard or guideline in automotive sector.

Based on the practical experience of Tianjin EPR demonstration activities (within Output B4), develop EPR standards or technical guidelines for the automotive industry, and provide clear technical indicators and management requirements for EPR activities in the automotive industry, mainstreaming gender considerations.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output A.4:

a. This activity will support the draft of required legal framework for the following topics:

- Re-use of recovered/recycled products obtained from separately collected waste fractions.
- Enhance Extended Producer Responsibility (EPR) for plastics in agricultural activity.
- Selection of sites for processing facilities (such as composting) of separately collected biodegradable waste and inclusion in provincial development plans.
- Elimination of restrictions or prohibitions (based on a feasibility assessment) on the use of revenues obtained from separately collected waste fractions as a contribution to the financing of municipalities' waste management expenses.
- Governing the management of harmful chemicals in municipal waste. The regulatory framework for harmful chemicals in municipal waste management will emphasize efforts to collect, transport and minimize waste generation and enhance recovery.

This activity will guarantee the integration of gender considerations within the drafted regulations as well as the consultation with women's groups and relevant government bodies in their development.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output A.4:

a. Legal Assessment and roadmap developed.

As a first step, a regulatory framework assessment will be conducted to understand and evidence existing gaps, inconsistencies and/or overlapping that may hinder the enhancement of collection rates and coverage as well as the adoption of waste hierarchy management practices, different roles of women and men in waste management and sanitation will be considered. As a result, a roadmap and the national/local approach to draft/update the legal instruments in support to Waste Management Plan and Zero Waste Strategy will be developed.

In particular, the following instruments have been identified to be supported/drafted by the project are:

- Review and reform of the Integrated Waste Management Strategy 2012 the Infection Control and National Healthcare Waste Management Plan 2015 and the Sierra Leone Trade Policy. This activity will support the review and reform of integrated waste management strategies, infection control measures, national healthcare waste management plans, and the Sierra Leone Trade Policy. The idea of this desk review is to identify the barriers for the private sector to introduce improvements in waste management,

with priority given to reducing waste generation, as well as the introduction of circular models. As a result, recommendations and drafting of suitable regulatory frameworks will be developed to encourage private investment and innovation. Regulatory frameworks will ensure formalization of existing informal waste management groups with emphasis on marginalized demographics like women and youth.

- Review and update the Freetown Sanitation Bye-law to encourage behavioral change. This activity will be implemented in close coordination with Freetown City Council, and it aims at ensuring relevance, legal compliance, improved governance, enhanced service delivery, adaptation to urban growth, promotion of sustainable development, addressing emerging issues, community engagement, enforcement efficiency, and promotion of economic development. The Freetown sanitation by-law has not been reviewed for years now, and the city keeps expanding with huge amounts of untreated waste generated. Therefore, it is important to carry out a review and revision of the by-laws as integral parts of effective urban governance and management.

- Development of standard procedures and guidelines for the management and/or disposal of hazardous waste materials. This activity will be implemented in close coordination with Environment Protection Agency (EPA-SL) in partnership with the Sierra Leone Standards Bureau (SLSB) and will entail carrying out desk and field reviews to ascertain baseline conditions on types of hazardous waste streams, quantities generated and methods of disposal and current regulatory frameworks. This will be followed by an assessment of local bye-laws, regional and international regulatory frameworks that will inform the development of national standards and guidelines for the sector. The guidance documentation will only be validated after consultations with all sectors in the waste and public health spheres, ensuring the participation of women's groups.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output A.4:

- a. Strengthen local regulations in the 4 governments of Greater Tunis on the ban of use of certain single-use plastic items by establishing a local decree targeting their respective main single use plastics identified.

This activity is in line with the vision of the Ministry of the Environment, aiming to prohibiting single-use plastic bags (Decree No. 2020-32 of January 16, 2020, prohibiting the production, import, distribution, and possession of single-use plastic bags, which entered into force in September 2022), and to extend it to cover other single use plastic (SUP) items problematic and unnecessary. This approach is under development with the support of WES project, a regional project designed to contribute to the implementation of an integrated approach to pollution reduction and prevention. The mentioned project aims to design the main problematic SUP items, and to support the consumers to identify a number of alternatives available.

While addressing the economic impact on the private sector, and in particular MSMEs, this activity will support the drafting of the local decree for banning of single-use plastics, aligned to the national framework. A joint regulation may be considered.

For that purpose, consultations will be held, including women and men in households and communities to understand consumption behaviors related to single use plastics and determine criteria for selecting more sustainable options (cost, convenience, reuse potential, accessibility, etc.).

- b. Develop the EPR principles regulation for the following waste streams: i) Construction and demolition; ii) Packaging and iii) Electrical and Electronic Equipment.

- Construction and demolition waste: Currently, the Ministry of Environment is working on a pilot project (REMEDI: Application de l'innovation pour le développement de l'économie circulaire pour une construction durable en Méditerranée) financed by the EU which aims to facilitate the use of at least 20% of recycled aggregates in road construction, and thus open up a construction waste market. Two other demonstration projects are in place in El Zahra and in Sfax.

Based on the results of the mentioned demonstration projects, this activity will support the drafting of the EPR regulation for the construction and demolition waste.

- Electrical and Electronics Equipment waste (WEEE): A draft regulation has been developed intitled: 'Governmental decree establishing the conditions and procedures for managing waste electrical and electronic equipment'. The draft needs to be reviewed and adapted to the current situation of the country and the existing infrastructure for WEEE treatment, such as the WEEE centre based in Borj Chekir in Greater Tunis.

- Packaging ECOLEF: The project aims to prepare a draft regulation, that actualize and improve the existing regulation 'Decree 1102 of June 2, 1997 by 2001-843" for the public system for the recovery of used packaging ECO-LEF. The draft regulation aims to highlights the EPR aspects, definitions, traceability, targets, responsibilities, etc. to facilitate the implementation of the system (considered very important, in particular at the social level).

For the effective drafting of aforementioned regulations, the following will be considered: i) Conduct an assessment of existing situation of the targeted waste streams and analyze main aspect of the target systems. Roles, concerns, and potential of women and men in the identified sector will be examined and suitable actions for closing gaps and gender concerns will be implemented; ii) Take into account international best practices related to EPR schemes for target waste streams.; iii) Follow an approach of consultation and discussion with all stakeholders involved in the sector, equal participation of women and men will be ensured iv) Validate the provisional concept and draft the regulations and design an action plan.

c. Develop a draft regulation to gradually ban the landfilling of green and organic waste in sanitary landfills in Tunisia.

The objective is to encourage local authorities and private sector to consider circular solutions to reduce food losses and waste, as well as to enhance the management of green and organic waste. The regulations aim to plan the ban and to encourage investments in organic waste treatment by municipalities and private companies, incentivizing them to promote women's engagement and empowerment in investments. The regulation needs to be supported by an action plan to prepare the local conditions and the necessary infrastructure to further develop the approach.

This activity will ensure the exploring of options to promote women's economic empowerment in action plan, such as women-led and operated compost enterprises for diverting green waste.

## COMPONENT 2: FINANCING INSTRUMENTS

### OUTCOME B: Sustainable investment and financing instruments promoted.

#### Output B.1. Financial and Fiscal Incentives for the transition to a zero-waste city assessed.

Through this Output the project will support cities in assessing different financial and fiscal incentives for promoting investment favoring the transition to the zero-waste city. In the same way, currently in place incentives will be evaluated and those ones unfavorable will be discouraged or eliminated. These financial and fiscal incentives would lead to the prevention of waste generation, increase in the collection and recycling rate of recyclables, increase the use of recycled materials, encourage circularity models, promote green production and sustainable consumption. The most promising mechanisms and incentives to contribute to the Zero Waste goal will be developed and put in place. Within the assessment and development of incentives the access to finance for the informal sector will be considered and ensured. Such incentives could include Extended Producer Responsibility (EPR), Deposit Return Schemes (DRS), tax incentives for investment, tariff setting for waste collection, landfill/disposal taxes/bans (e.g., organic wastes), import taxes or bans on products that are challenging to recycle. Financial incentives will be part and parcel of the Strategic Waste Management Planning as well as Investment in private sector or publicly owned infrastructure and technologies.

This Output will also ensure the design of a Financing Strategy in each of the participating cities to support the effective implementation of Waste Management Plans and Zero Waste Strategies to be developed within Output A.1 In addition, Public Finance as well as Private Finance Instruments will be designed based on the needs and specific local contexts in each of the participating cities. Among the Public and Private Finance Instruments, the following will be considered:

a. Public Finance: - Fiscal Revenue (local tax and government contributions to municipal budgets, including taxes on waste) and on-budget Expenditures.; - Municipal bonds and debt.; - Public funds (at the local level).; - Guarantees for loans or other forms of debt (for service providers).; - Public participation in equity of private companies.; - PPPs (concessions or public procurement).; - Counter-guarantee and collateral funds for zero-waste entrepreneurs.; - International inter-municipal / local level cooperation.; - International development cooperation with local focus (e.g. SDG localization and decentralization funds).; - Climate Finance (especially links to adaptation).

b. Private Finance: - Value-generating investments (e.g. waste-to-energy; green transition, etc.); - Private Equity (for private initiatives consistent with Zero Waste strategy and PPPs).; - Private Funds investing in ESG / Climate.; - Corporate thematic bonds linked to Zero Waste (e.g. sustainability, social, green, SL bonds, etc.); - Impact metrics and taxonomies for zero-waste.; - Corporate responsibility (waste reduction strategies) and CSR. ; - Voluntary compensation for externalities (i.e. voluntary carbon market model applied to waste).; - Sustainability disclosure regulations for publicly traded companies.

#### Uruguay – Metropolitan area (San José, Canelones, Montevideo):

The following activities will be developed to reach Output B.1:

a. Adapt taxation instruments and authorization and control instruments to support the formalization of the waste marketing chain.

Crucial activities in the materials recovery chain are presently conducted informally, involving small warehouses that serve as intermediaries in the trade of plastic, scrap, paper, and other materials. On the other hand, regulatory advances in waste



management and circular economy require operators to be formalized and have safe, environmentally sound and traceable operations. Informal activities do not provide any guarantee that landfilling is actually being reduced. On the other hand, they increase the levels of exposure to hazardous chemicals such as persistent organic pollutants (POPs) of vulnerable populations.

This activity will be developed in close collaboration with the General Tax Directorate (Ministry of Economy and Finance) to assess and modify tax instruments, fostering the formalization of various entities in the recyclable materials commercialization chain. Additionally, actions will be implemented with major companies in the metal, cellulosic, and plastic materials recovery sector to establish a supplier development program, enhancing formality levels in the commercialization chain.

The program will start with actors in the ferrous metals sorting chain in general and WEEE in particular, as the formalization of these entities is a prerequisite for WEEE regulations. Furthermore, an environmental authorization process will be instituted for companies and enterprises in the metal recovery sector, promoting formalization and strengthening the control system for the entire sector.

This activity will safeguard the consultation with informal workers and recycling groups and associations to understand the concerns of formalization for women and men in the informal sector. And it will ensure formalization efforts safeguard livelihoods and that women and men equally have access to formal level employment.

The development of new legal instruments and/or the modification of existing ones resulting from the assessment will be supported within Output A.4.

b. Design and implement a microfinance programme for worker cooperatives and social cooperatives of sorters associated with zero waste projects.

This activity consists of designing a microfinance instrument for cooperatives integrated by waste pickers/sorters, which will leverage SWAP's efforts by creating synergies with existing actors, channels and financing mechanisms for this target audience. The implementation of this instrument will be developed within Output B.3.

This activity will consider consultations with women and men in cooperatives to ensure their priorities are included in microfinance programme.

c. Financial Strategy designed, economic and financial instruments developed, waste recovery market strengthened and returnability promoted.

This activity will support the development of a Financial Strategy in the Great Montevideo as a comprehensive and dynamic framework to guide the national government and municipalities in the collection, allocation, and management of financial resources to effectively and sustainably support the Waste Management Plans and the Zero Waste Strategy designed under Outcome A.1. For its proper design a financial landscape and institutional assessments will be conducted. Development of the strategy will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

In particular, this activity seeks to design (adapt) and develop appropriate financial and/or economic instruments to strengthen the market for recycled products. An assessment of existing or available mechanisms will be carried out and the feasibility of application in Uruguay (design/adaptation and development) will be analysed. The main material flows considered within this activity are plastics and cellulosic materials. The objective is to promote the procurement of products based on recycled materials.

In addition, instruments to improve the sustainability of material recycling channels will be assessed, ensuring the stability of this destination. This action is key to ensure the sustainability of landfill reduction strategies. Complementarily, the implementation of instruments to prevent the landfilling of waste that can be recycled will be assessed and designed. Finally, the identification of economic instruments that discourage the consumption of non-returnable packaging will be evaluated.

At least 1 financial and/or economic instrument will be developed and implemented.

The activity is linked to the institutional strengthening of the WEEE and packaging systems to be implemented under Outcome A.1, as it aims to ensure the demand for recovered materials within both REP schemes.

#### **China - Tianjin:**

The following activities will be developed to reach Output B.1:

a. Fiscal and Financial incentives assessed, Financial Strategy designed and at least 1 (one) Financial instrument implemented.

This activity will support the development of a Financing Strategy in Tianjin, as a comprehensive and dynamic framework to guide local government in raising, allocating, and managing financial resources to effectively and sustainably support Waste Management Plans and Zero Waste Strategies designed within Output A.1.

The development of the strategy **will** apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

As a first step, a financial landscape and institutional assessments will be conducted for the proper design of the strategy. It will evaluate existing and potential financial and fiscal incentives, analyze the current situation of Tianjin's waste management financial system. Conduct research on financial support policies for the development of a 'zero waste city' in Tianjin and propose a Financing Strategy.

This activity will include the evaluation of existing and potential financial mechanisms and incentives for solid waste management in Tianjin, actively promote the innovation of green financial products, services and models, and strengthen financial support for the zero-waste city construction. Improve financial incentives, optimize investment and financing mechanisms.

Lastly, based on the local needs and specific contexts, this activity will support the development and implementation of at least 1 financing instrument.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output B.1:

- a. Fiscal and Financial incentives assessed, Financial Strategy designed and at least 1 (one) Financial instrument implemented.

This activity will support the development of a Financing Strategy in Kocaeli, as a comprehensive and dynamic framework to guide local government in raising, allocating, and managing financial resources to effectively and sustainably support Waste Management Plan and Zero Waste Strategy designed within Output A.1. As a first step, a financial landscape and institutional assessments will be conducted for the proper design of the strategy.

In addition, based on the local needs and specific contexts, this activity will support the development and implementation of at least 1 financing instrument.

Development of the strategy will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

This activity will also identify fiscal and financial mechanisms and evaluate its feasibility and effectiveness of implementation in Kocaeli to ensure the operating costs aligned to the Kocaeli's Integrated Waste Management Plan and Zero Waste Management Action Plan (Output 1.1). As a result, recommendations of suitable fiscal and financial mechanisms will be delivered as an input for government authorities decision making.

- b. Support the implementation of financial incentives to prevent waste generation and increase the collection and recovery/recycling rates of recyclable materials.

This activity will identify and classify waste producers by groups (such as: municipal waste, packaging waste, e-waste) in the following sectors: households, commercial establishments, and factories. Based on this classification, an assessment and recommendation of suitable specific tax tariffs and incentives will be developed for each group. The activity will ensure that tax tariffs and incentives respond to barriers and enhance equitable participation of women and men.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output B.1:

- a. Fiscal and Financial incentives assessed, Financial Strategy designed and at least 1 (one) Financial instrument implemented.

This activity will support the development of a Financing Strategy in Freetown, as a comprehensive and dynamic framework to guide local government in raising, allocating, and managing financial resources to effectively and sustainably support Waste Management Plan and Zero Waste Strategy designed within Output A.1. As a first step, a financial landscape and institutional assessments will be conducted for the proper design of the strategy.

In addition, based on the local needs and specific contexts, this activity will support the development and implementation of at least 1 financing instrument.

Development of the strategy will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

This activity will also support the evaluation of the implementation and impact of existing fiscal and financial incentives, as well as identify potential ones related to the waste reduction and the adoption of circular models to increase materials circularity. Based on this technical assessment, areas for improvement or simplification will be identified through secondary legal regulations to strengthen the effective implementation of the existing legal framework.

This activity will include:

Identify and implement budgetary policy and measures as a way to ring-fence relevant sources of revenue for waste management, and to support Waste Management Plan and Zero Waste Strategy in Freetown.

Support Freetown City Council to increase its own source revenue generation to finance wider waste collection coverage.

Identifying and reconciling inequities and unintended impacts of current taxes to ensure equitability among stakeholders within the waste management value chain. By promoting social justice, economic efficiency, fiscal sustainability, social cohesion, political legitimacy, and poverty alleviation, an equitable tax system contributes to overall societal well-being and prosperity.

Likewise, it will seek to disseminate and strengthen the capacities of companies, MSMEs and associations, especially, so that they can benefit from tax benefits, ensuring the participation of women-led companies, MSMEs, and associations to understand and benefit from financial resource access.

As a result, fiscal and financial policies recommendations will be delivered as an input for government decision making.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output B.1:

a. Financial Strategy designed and at least 1 (one) Financial instrument implemented.

This activity will support the development of a Financing Strategy in Greater Tunis, as a comprehensive and dynamic framework to guide local government in raising, allocating, and managing financial resources to effectively and sustainably support Waste Management Plans and Zero Waste Strategy designed within Output A.1. As a first step, a financial landscape and institutional assessments will be conducted for the proper design of the strategy.

In addition, based on the local needs and specific contexts, this activity will support the development and implementation of at least 1 financing instrument.

Development of the strategy will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

b. Assess and design a subsidy system for compost-based products according to Tunisian standards (Tunisian standard on the specificities and quality of compost NT 10.44 (2013))

The economic competitiveness of compost depends on various factors, including production costs, market demand, regulatory environment, etc. The objective is to guarantee consumers (citizens, farmers, municipalities, etc.) the competitiveness of compost-based products against chemical fertilizers. One option could be a subsidy through the ecotax, managed by the Ministry of Finance.

This activity will support the assessment, which will include the economic, social and environmental impact, and design a suitable subsidy system. The assessment may consider women's and men's currently engaged in compost-based products and barriers to their access and success in the market.

Raising awareness of targeted consumers, ensuring the participation of women-led enterprises, on the benefits resulting from the subsidy will be supported by Output D.1.

## **Output B.2. Investment plan and Public-Private Partnerships (PPP) to cover the city waste management developed.**

Through this Output the project will support each of the cities for the development of an investment plan and funding measures to secure larger scale investments for waste management and disposal infrastructure (transfer stations, sanitary landfills, waste-to-energy plants, hazardous waste interim storage facilities, industrial recycling plants, etc.). This plan will be complemented by an analysis of optimal financing instruments to cover the cost of MSW management, focusing on ways to create sustainable business models, covering investments in the key infrastructure and daily operational costs. The project will ensure that investment plans are developed in a gender-responsive manner and include resources to support gender and social inclusion outcomes.

For this purpose, Public-Private Partnerships (PPP) will be encouraged for different waste streams in cities. The main benefit of using a PPP arrangement is that optimal risk sharing with a private partner delivers better value for the public user<sup>30</sup>. Additionally, it offers policy makers an opportunity to improve the delivery of services and the management of facilities. This Output will support national and local governments to design and set clear conditions for PPP arrangements and projects.

Furthermore, the project will seek to work with bilateral partners and national and international investors, such as International Finance Institutions (IFIs) to support countries and municipalities in complementing larger scale investments for waste-related infrastructure, while encouraging the establishment of inter-municipal partnerships that allow municipalities to join forces and share costs.

### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output B.2:

- a. Develop inputs for the investment plan (2026-2030 and 2031-2035) on waste management for municipalities within the metropolitan area.

Regarding waste management under the jurisdiction of the municipalities, there is a financing gap that hinders the achievement of the goals committed to in the National Waste Management Plan. As a challenge, there is a lack of accounting information on revenues and costs of municipal waste management that prevents adequate financial planning.

In this context, this activity aims to support the design of the municipal waste management budgets. This implies, for each municipality, contracting support consultancies to improve information on the flow of funds associated with municipal waste management services. As a result, the need for funding resources for waste management operating costs and necessary infrastructure investment will be projected and will serve as inputs for the investment plans for both the 2026-2030 and 2031-2035 periods. These needs will be determined in line with and to support the implementation of the municipal waste management plans and the zero-waste strategy in the metropolitan area.

The development of the investment plan will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

### **China - Tianjin:**

The following activities will be developed to reach Output B.2:

- a. Analyze potential financing tools, including the PPP model. Conduct research on market-based investment and financing mechanisms and business models for waste management and disposal infrastructure in the process of the 'zero waste city' development.

Conducting research on market-based investment and financing mechanisms and business models for the zero-waste city construction. Assess the current status of the application of public-private partnership (PPP) and other financing tools in the zero-waste city construction. and put forward an investment plan for the zero-waste city construction in Tianjin. Explore the establishment of an incentive mechanism for project matching funds for pilot demonstrations of zero waste city development.

The development of the investment plan will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output B.2:

a. Support larger-scale investments and developing financing methods for waste management and disposal infrastructure (such as transfer stations, waste storage areas, waste-to-energy facilities, temporary storage of hazardous wastes).

In line with Output B.1, support the development of an investment plan to support and ensure fundings for the Kocaeli's province integrated waste management facilities (such as Mechanical Separation Facility, Pre-Treatment Facilities-bio drying and SRF, composting facilities). This aims to support the management of the mixed municipal wastes collected within the borders of Kocaeli, excluding waste fractions collected separately at the source, in accordance with circular economy principles and to achieve recovery targets in accordance with the National Zero Waste Management System. The development of the investment plan will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

In particular, the following required investment to address barriers related to the municipal waste infrastructure and the management according to the National Waste Management and Kocaeli's Action Plan, reviewing short-term and long-term solutions to strengthen the design of waste collection, transportation, separation method and recycling systems for different waste fractions, enhancing the waste management system compatible with the zero-waste strategy. The following will be considered:

Optimization of the dual collection system to collect biodegradable waste separately from the sources, especially district bazaar, chain markets (greengrocer section), cafeterias of industrial enterprises, restaurants, and food factories without mixing with mixed waste. Selection of the location for the facilities to be established for the recycling of separately collected biodegradable wastes. Collection vehicles suitable for transporting more than one waste fraction with a single vehicle.

Preparing a regional (city) recyclable waste infrastructure implementation plan and supporting the pilot applications for the necessary infrastructure to collect packaging waste separately from households and other sources without mixing with mixed wastes.

Enhance of Civic amenity center (CACs) - Environmentally Friendly Training and Awareness Centers.

Strengthening management of waste that includes hazardous chemicals and disposal infrastructure. This includes: i) establishing facilities for washing and reusing agricultural packaging waste and/or final disposal with the best technologies; ii) Recycling or controlled disposal of bulky household items (such as sponge mattresses, refrigerators) containing chemicals.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output B.2:

a. Develop an Investment Plan for Freetown.

This activity will support the required inputs to design an investment plan for Freetown to ensure funding measures to secure larger scale investments for waste management and disposal infrastructure in Freetown. As a challenge, there is a lack of accounting information on revenues and costs of municipal waste management that prevents adequate financial planning. In particular, fundings for improvement on the collection rate and coverage will be sought. The needs will be determined in line with and to support the implementation of the Waste Management Plans and the zero-waste strategy in the city.

The development of the investment plan will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output B.2:

a. Support the 4 governorates of Greater Tunis in the development of an investment plan and financing measures aimed at ensuring larger-scale investments in waste management, treatment and disposal infrastructure planned aligned to the Regional Waste Management Plan and Zero Waste Strategy in Greater Tunis.

This plan will be complemented by an analysis of optimal financing instruments to cover the cost of managing household and similar waste, focusing on means of creating sustainable business plans, covering investments in key infrastructure and daily operational costs.

The development of the investment plan will apply SESA principles to ensure that environmental, economic and social risks that may be associated with their implementation are considered. This process is described in more detail in the ESMF that has been prepared for the project.

b. Design and regulate intermunicipal cooperation framework for at least 4 municipalities in Greater Tunis. The objective is to prepare the conditions for joint project toward Zero waste goal in Greater Tunis.

The inter-municipal cooperation aims the creation of a collaboration of several municipalities with the aim of providing a joint public service, reducing and saving costs, and sharing risks in relation to the Zero waste objective. This activity aims to design a sustainable and concrete concept based on existing practices at the international level and in Tunisia. The experience of the intermunicipal cooperation between 17 municipalities of Bizerte is a great example to consider accelerating the process and built the cooperation.

The concept must take into account the national regulatory and financial framework and the specificities of the local context, including gender considerations. The 'to be designed projects' within the intermunicipal cooperation should be based on and integrated approach and circular economy models aligned to the Zero Waste Strategy and Waste Management Plan.

### **Output B.3. Green finance mechanisms established for supporting green production and consumption, and circular business.**

This Output will support cities in assessing current barriers that inhibit investment and financial flows from the public, private and not-for-profit sectors to green production and consumption towards a zero waste and zero pollution city; and explore innovative green finance instruments to overcome them. Barriers will be assessed from the perspective of end users, industries, midstream stakeholders (e.g., retailers), recyclers, and public authorities. These mechanisms will aim to foster the development of circular business models, promote innovation for the design of safer and more sustainable products (products reusability, reparability, or recyclability), and optimization of production processes (resource efficiency), as well as greener consumption patterns (segregation at source, eco labeling, etc.). Potential mechanisms would be blended concessional green loans, municipal green bonds, crowd-financing, performance-based financing, on-bill financing, insurance, among others. Multi-stakeholder partnerships will be promoted to include major actors in financial markets, banking institutions, national development banks, investors, micro-finance institutions, insurance companies along with public sector.

As a result, suitable and affordable green mechanisms will be recommended and established within the cities, ensuring the proper access by different targeted stakeholders' groups. Complementary measures such as policies, regulations will be considered under Output A.4, and awareness raising activities and behavior change initiatives will be addressed through Output D.1.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output B.3:

a. Design financing instruments for micro and small enterprises (MSMEs) within the framework of the National Development Agency (ANDE - Access to Finance programmes) aimed at reconverting their production processes.

This activity seeks to design new green financing instruments for accessing financing for micro and small enterprises -or adapt existing instruments- to support the reconversion of productive processes to reduce the generation of waste and POPs in productive activities, as well as to support material reuse and recycling processes to increase circularity and reduce landfilling.

This instrument is in synergy with the guidelines of the National Circular Economy Strategy, in its cross-cutting chapter on financing the circular economy. It provides guidelines to generate a Circular Economy categorization system for the financial system, with technical, environmental, social and governance standards, in order to guide and provide a common language to the ecosystem of Circular Economy actors.

Additionally, this activity will benefit and make synergies with the ongoing efforts of UNDP CO in the sustainable finance strategy for Uruguay<sup>31</sup>. In particular, the GCF Readiness Project proposal 'Aligning and increasing public and private financial flows towards Uruguay climate commitments and priorities'.

b. Implement the microfinance programme (Output B.1) for worker cooperatives and social cooperatives of sorters associated with zero waste projects.

This activity consists of supporting cooperatives composed of waste pickers/sorters through a microfinance program. This activity will be implemented within the existing support and access to financing programs promoted by the National Development Agency (ANDE) and the National Cooperative Institute (INACOOP).



In close coordination with ANDE and the financial system, support will be given to cooperatives through the design and implementation of financial instruments such as guarantees and interest rate subsidies, as well as enhance their capacities. It is expected to support at least 9 worker and social cooperatives (an average of 3 cooperatives per year during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year of project implementation is estimated). These cooperatives should either be formalized or in the process of formalization and be engaged in projects related to strategies or actions aimed at waste reduction (such as repairs, product leasing services, second-hand sales, material recovery, sorting, and recycling). Selection criteria will include environmental and social criteria and will prioritize the participation of cooperatives led by women.

The following scopes will be prioritized:

- Repair and second life of EEE, toys, furniture.
- Environmental adaptation projects for material recovery operations that guarantee adequate management of POPs.
- Synergies with the private sector and EPR systems operating in the country.

The selection criteria will be determined in the framework of the project steering committee and the selection will be made through an open and competitive process. It will be followed by an environmental and social screening of the selected activities to determine the need for a targeted assessment and an Environmental and Social Management Plan (ESMP) based on identified associated risks.

Finally, this activity will benefit and make synergies with the ongoing efforts of UNDP CO in the sustainable finance strategy for Uruguay<sup>32</sup>. In particular, the GCF Readiness Project proposal 'Aligning and increasing public and private financial flows towards Uruguay climate commitments and priorities'.

c. Design instruments and implement a development programme to promote the installation and/or consolidation of Circular Economy industrial and/or science and technology parks in the metropolitan area (examples: Polo Tecnológico Industrial del Cerro, Polo de economía circular de Pando - Canelones, among others).

In the metropolitan area there are industrial parks or scientific-technological parks that were created with the objective of promoting circular economy practices (such as the Pando Circular Economy Pole in Canelones) or to receive companies whose activities are aligned and could enhance circular economy (Cerro Industrial Technological Pole in Montevideo). The purpose of this activity is to design and implement a strategic development program to promote the consolidation of existing industrial and/or scientific-technological parks. At the same time, it aims to encourage the establishment of new parks with a circular economy focus, promoting synergies among various productive and service activities.

This activity will ensure that gender criteria and mandates are included in the strategic development programme, such as ensuring women and men have equal access to employment opportunities, the concerns and priorities of women and men are addressed in consolidation and establishment of new parks, etc.

The main lines of action will be:

- Design the strategic plan for the development of existing industrial parks in the departments of Canelones and Montevideo, as well as conduct a feasibility analysis of installing a technology park in San José.
- Business incubator program, including gender criteria, aimed at innovation and capacity building projects focused on zero waste strategies (development of new materials, value addition, technology services that support the circular economy).
- Implementation of at least three demonstration projects (with gender targets) that enable circularity among the park's activities. Such as: i) Generation of energy from waste (steam or electric power) for park users.; ii) Water circularity in the park's processes, enabling reuse processes. iii) Business model towards zero waste strategy resulting from the Incubator programme. Each demonstration project will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

#### **China - Tianjin:**

The following activities will be developed to reach Output B.3:

- a. Research on the design, pricing and risk management of green financial instruments, such as green loans, green bonds, green funds and green insurance, and carry out research on green financial policies and innovation of green financial products and services to promote the construction of 'zero waste city'. Explore the feasibility of applying green financial instruments in project demonstration activities.

Through this activity, the design, pricing and risk management of green financial products, such as green loans, green bonds, green funds and green insurance, will be assessed, as well as the integration of the concept of 'zero waste city' into financial services, so as to provide technical support and decision-making references for green financial policymaking, market development and practical innovation.

This activity will be developed in close coordination and engaging communication with key stakeholders (such as the Tianjin Branch of the People's Bank of China, the Tianjin Supervisory Bureau of the China Banking Regulatory Commission, the Tianjin Supervisory Bureau of the China Securities Regulatory Commission, etc., ) to formulate one green finance incentive policy, and to promote the qualification of at least 10 enterprises (such as manufacturing, resource recycling and utilization sectors can qualify for financing in the activity of the promotion of the construction of a 'Zero Waste City'. The participation of women-led enterprises will be sought.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output B.3:

a. Develop financing models that encourage the development of circular business models and support innovative green financial mechanisms for the design of safer and more sustainable products.

Define suitable financial instruments or modify existing ones to facilitate access to funding for micro and small enterprises in cooperation with MARKA (eastern Marmara development agency). These instruments will be directed towards promoting the transformation of production processes to minimize waste and persistent organic pollutants (POPs) and material recycling processes to enhance circularity.

In addition, this activity will ensure capacity building in enterprises through training and information dissemination on available green finance mechanisms and how to access them, mainly micro and small enterprises (such as the automotive sub-industry and the construction materials sub-industry).

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output B.3:

a. Design financing instruments for micro and small enterprises (MSMEs)

In coordination with financial institutions, this activity seeks to design new green financing instruments -or adapt existing instruments- for accessing financing for micro and small enterprises to support the reconversion of productive processes to reduce the generation of waste and POPs in productive activities, as well as to support material reuse and recycling processes to increase circularity and reduce landfilling. The Project will strengthen the circular economy capacities of the prioritized financial institutions so that they can develop or modify their financial products.

In addition, support will be provided to generate capacities and financial education so that prioritized companies and associations (mainly MSMEs) can develop bankable circular economy projects that facilitate their access to credit, in order to reduce their gaps in access to formal financing. Gender gaps will be considered, as well as the informality of waste pickers, in order to strengthen capacities in the development of adequate financing to ensure equitable access.

Through this activity at least 30 MSMEs will be technically assisted to access funds destined to the implementation of circular business models, promote innovation for the design of safer and more sustainable products (products reusability, reparability, or recyclability), and optimization of production processes (resource efficiency), as well as greener consumption patterns (segregation at source, eco labeling, etc.). For the selection of enterprises gender mandates for competitive fund, including development of anti-harassment policies, gender parity in employment and decision making will be included,

b. Design and implementation of a Competitive Fund for cooperatives integrated by waste pickers/sorters.

The project will design and implement a competitive and transparent process to finance initiatives that promote activities aimed at waste reduction (such as repairs, product leasing services, second-hand sales, material recovery, sorting, and recycling).

These cooperatives should either be formalized or in the process of formalization.

The design of the competitive fund should include at least the criteria for the selection and evaluation of proposals, including environmental and social criteria, the formats for the presentation of proposals, the processes to be followed, calls for proposals, monitoring and evaluation systems, among others. A strategy for the dissemination of the Competitive Fund must also be developed. As a result of the evaluation process, at least 12 cooperatives will be selected to receive support from the Project (up to USD 5,000).

This will be followed by an environmental and social screening of the selected activities to determine the need for a targeted assessment and an ESMP based on identified associated risks.

The following waste streams will be prioritized: electronics; plastics; construction; organic; tires.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output B.3:

##### **a. Support the development of green finance mechanisms.**

Through this Output the Project will establish partnership with financial institutions and strengthen their capacity and understanding to develop financial products that would be tailored to encourage the development of circular business models aligned to the Zero Waste Strategy. In particular, support to the reconversion of productive processes to reduce the generation of waste and POPs/UPOPs in productive activities, will be sought.

In addition, work with the targeted private sector (mainly micro, small and medium size organizations) to build their financial capacity in developing bankable projects and loan/investment applications and subsequently apply for access to credit. The project will train through workshops and awareness raising events micro, small, medium-sized and large enterprises that are currently working within the automotive and textile industries to increase awareness of due diligence, compliance with regulations, and access to different types of green finance sources.

Subsequently, the project will select at least two (2) micro, small or medium-sized enterprises aligned to the scope of the project and technically assist them to access the green funds provided by the financial institutions. One (1) enterprise will be selected from the automotive industry, and one (1) will be selected from the textile industry. The technical assistance may include the development of a business plan, marketing, and linkage with suitable green funds.

The enterprises will be evaluated and selected through a call and application requirements (proposal template, budget, implementation period, monitoring, reporting, and supporting documentation) to be defined during project implementation. The evaluation criteria will incorporate environmental, social and gender considerations and will promote the empowerment of women in the sector. Selection of the activities will be followed by an environmental and social screening of the selected activities to determine the need for a targeted assessment and an ESMP based on identified associated risks.

The project will ensure the tracking of the monitoring and reporting activities for the progress of each initiative.

##### **b. Develop and implement a microfinance programme for social cooperatives.**

This activity aims to design a programme to provide financial support to existing social cooperatives which are currently engaged in projects aligned to reducing waste landfilling (such as repairs, product leasing services, second-hand sales, material recovery, sorting, and recycling). These cooperatives should either be formalized or in the process of formalization. The programme will include gender criteria and targets for cooperatives, including number of women in cooperative, in decision-making roles, benefitting from cooperative resources, etc

The project will target social cooperatives linked to packaging waste and E-waste and will support at least four (4) social cooperatives, to strengthen their operations considering BAT/BEP. For the selection of the cooperatives, a call of proposals will be developed, the selection criteria, including environmental and social criteria, will be designed during project implementation, and a transparent selection process will be ensured. Selection will be followed by an environmental and social screening of the selected activities to determine the need for a targeted assessment and an ESMP based on identified associated risks.

The following scopes will be prioritized:

Repair and reuse of electronic and electrical equipment and materials.

Enhancement of EPR systems: packaging and electronics, through synergies with the private sector.

Collection, sorting and recycling of packaging and electronic and electrical equipment.

#### **Output B.4. EPR schemes developed in key sectors with associated capacity building of stakeholders. Market for recyclables created.**

Through this Output the project will conduct technical economic feasibility analysis for the development of EPR schemes for prioritized waste streams. EPR schemes can create a financially sustainable system for the collection, transportation, and recycling

of materials, and improve their circularity of materials through modifications in both the upstream and downstream ends of the value chain.

Aligned to the previous assessment, this Output will also support the development and implementation of demonstration activities for the adoption of Extended Producer Responsibility (EPR) schemes to evidence its technical and financial sustainability. It will also ensure that effective processes and infrastructure are in place for collecting, sorting, recycling, and final disposing of materials in different waste streams. The demonstration activities will encourage segregation at source, promote maximum recycling and/or recovering of materials through sound recycling practices, and ensure sound treatment and disposal of non-recoverable ones.

The following value chains were preliminary identified by the cities to be supported by the project: end of life vehicles (including tires), electronics waste, batteries, plastics packaging/containers, and agricultural plastics among others. The project will engage key stakeholders within the different value chains and boost public-private partnerships for business models implementation. The pilots will also strengthen stakeholders' technical capacities, provide training and guidance on BAT/BEP.

This activity will also support the development/expansion of national markets for recyclables, through developing industries that are able to turn recyclables into new products and creating markets for the uptake of these recycled products (e.g., adding the requirements of using recycled materials above a minimum percentage, recyclable packaging in the public procurement and practices).

As a result, EPR scheme standards will be developed and recommended for regulations drafting. The implementation of EPR regulations is a powerful measure to improve both the quantity and quality of what gets recycled, as well as extending the useful life of materials, thereby supporting the acceleration to a circular economy.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output B.4:

a. Demonstration projects aligned with waste valorization and value addition of recycled materials for regulated streams with EPR.

At least two demonstration projects are foreseen, one under an agreement with the private sector (VALE Plan) within the framework of the packaging management system in Uruguay (US\$50,000) and the other within the framework of the implementation of the WEEE regulation (US\$50,000) in association with the plan to be developed. The main objective of these two projects is to deal with fractions of materials that currently have difficulties to be recovered and marketed within the framework of both Extended Product Responsibility schemes. This activity will be implemented in close coordination with the private sector. Each demonstration project will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

b. Conduct economic studies and improve information management for the promotion of the recyclable materials market and support decision making.

The economic studies will target the following lines:

- Economic studies on the production and commercialization chain of recycled materials, as well as related economic sectors, related to potential requirements regarding packaging restrictions.
- Monitoring and generation of basic information on the costs of packaging waste recovery systems and their eventual impact on the price of products. This supports the improvement of the efficiency of the system and allows the experience to be shared with other countries in the region (national studies accompanying the implementation of the new Packaging Plan, including the deposit-refund system module).
- Development of proposals to promote the recyclables market, complementary to the economic instruments addressed in Activity B1.
- Strengthening of the packaging traceability system.

#### **China - Tianjin:**

The following activities will be developed to reach Output B.4:

a. Research domestic and international EPR policies and case experiences in the vehicle, e-waste and battery industries, conduct technical and economic feasibility analyses of EPR activities in the automotive products, e-waste and battery industries in Tianjin, and put forward policy recommendations.

Conduct research on the EPR model for the vehicle industry, including theoretical and policy research on the extended producer responsibility system, clarifying the boundaries of the responsibilities of stakeholders, and how to establish a synergistic mechanism.

As a result, a policy recommendation on EPR implementation will be developed.

b. Carry out EPR one (1) demonstrations in the vehicle industry to promote maximum recycling and/or material recovery at source and ensure proper treatment and disposal of non-recyclable materials.

Promote maximum recycling and/or material recovery at source through demonstration at one vehicle manufacturer and upstream and downstream and ensure that non-recyclable materials are handled and disposed of appropriately. The demonstration project will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output B.4:

a. Develop Extended Producer Responsibility (EPR) schemes supporting recyclable market creation. This activity will support packaging waste and electronic waste streams in municipal waste.

This activity will include the implementation of two (2) demonstration activities (one per each of the selected waste streams) for establishing and evidencing a financially sustainable model for the collection, transportation, reuse, recovery and recycling of packaging waste and electronics waste, improving the circularity of materials within an EPR scheme. The model design will ensure the effective processes and infrastructure for the collection, classification, recover, reuse, recycling and final disposal of the waste streams. Each demonstration project will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

b. Develop an Extender Producer Responsibility (EPR) scheme for plastics waste in agricultural activity.

This activity will support the implementation of a pilot project destined to design an effective EPR scheme for ensuring the sound management of plastics (including agrochemical containers) within the agricultural activity in rural area. In addition, proper environmental sound management of expired agricultural chemicals will be ensured. A technical and economic feasibility analysis will be conducted. This activity will conduct a targeted assessment and a site-specific ESMP to ensure all associated environmental and social risks are addressed.

This activity will include: i) Improving the collection system of the agricultural plastics waste in the villages; ii) Developing a recycling system for the agricultural plastics waste to be collected from the villages; iii) Ensuring the distribution of responsibilities with relevant parties in the public and private sectors for the management of agricultural wastes and making the necessary arrangements.

The pilot will focus on the application of BAT/BEP for the management of agricultural waste plastics and will look into proper handling: storage, rinsing, shredding, compacting and recycling into semi-finished products. In particular, potential recovery of materials through recycling will be sought. In addition, the pilot will include activities for minimization of plastic use and waste generation as well as the assessment and adoption of alternatives for plastic of agricultural use. Results of pilot will be used to identify the best technologies/practices that can be projected and deployed at national level in a further stage, as well as provide proper technical inputs for drafting related legal instruments.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output B.4:

a. Develop and implement EPR mechanisms for plastics packaging.

Through this Output the project will support pilot projects aiming at evidence technical and economic feasibility of the implementation of Extended Producer Responsibility (EPR) Mechanisms within the plastics packaging value chain. For that purpose, two (2) pilot projects will be supported: i) Reuse-Refill pilots of food and beverage (F&B) plastic containers in small retailers and/or in food restaurants; ii) Plastic waste reduction through deposit-return scheme for bottles/containers of different brands or producers. Gender-responsive approaches, indicators, and targets in pilot projects will be included.

Each pilot project will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

The following should be considered:

i) Reuse-Refill pilots in Freetown:

- Scope: Refilling Services (voluntary) to be implemented by large and/or medium size companies, through small retailers and fast-food chain, which are to be responsible of containers logistics and cleaning and management.
- Engage Stakeholders: retailers, brands (to be defined), food restaurants.
- Conduct an assessment of small retailers (mainly linked to the socio-economic sectors) documenting their business models through the analysis of a representative sampling. Based on the assessment, design accurate proposals which will include a business model for plastic reduction for each of the types of small retailers. The following will be considered: Bulk dispensers, Refillable bottles, collection chain for plastic bottles and other containers + reverse logistics.
- Implement the proposed model in an iterative way, i.e. testing the design and feedback in order to adjust it for better operation.
- Monitor and measure the model results (based on defined targets), both in an economic and in a technical way.
- Feedback on the results of iterative implementation, review the design of the scheme and document partial and final results.
- Develop Feasibility study
- Develop Business model
- Based on final results, provide inputs to the design of the Replication Strategy within Output B5.

ii) Deposit-return scheme for bottles/containers:

- Scope: Voluntary Deposit-Refund to be implemented by large or medium size beverage and food products' companies, through supermarket (chain) or other collection points, through automated or hand operated system.
- Engage Stakeholders: Beer producers, other beverages producers, supermarkets or other retailers, and SMEs specialized deposit-refund systems' manufacturers.
- Conduct an assessment of large retailers documenting their business models. Based on the assessment, design accurate proposals for Food and beverage brands: The following will be considered: automated collection and hand collection.
- Implement the proposed model in an iterative way, i.e. testing the design and feedback in order to adjust it for better operation.
- Monitor and measure the model results (based on defined targets), both in an economic and in a technical way.
- Feedback on the results of iterative implementation, review the design of the scheme and document partial and final results.
- Develop Feasibility study
- Develop Business model
- Based on final results, provide inputs to the design of the Replication Strategy within Output B5.

**Tunisia – Greater Tunis:**

The following activities will be developed to reach Output B.4:

a. Enhance EPR mechanisms by implementing a deposit/return scheme for plastics bottles.

Through this Output the Project will support the implementation of one (1) demonstration activity to demonstrate the feasibility of implementation of the deposit/return mechanism. The deposit return system will be implemented by large or medium size beverage companies through supermarket or other collection points through automated operated system (such as reverse vending machines). Apply not only to plastic but other packaging materials may be considered (such as cans). This activity will strengthen the existing ECOLEF recovery system. Gender-responsive approaches, indicators, and targets in pilot project will be included.

The demonstration activity will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.



For the implementation of this demonstration activity, the following should be considered:

- i) Engage a supermarket chain/other collection point in conjunction with 2/3 brands of beverages. Analyse and define the most appropriate geographic and demographic selection for the implementation of the demonstration activity (Urban area).
- ii) Assess and design an accurate proposal for the deposit/return scheme model. Negotiate with the engaged supermarkets and the brands the scheme of the deposit/return to be tested in the initiative, including the analysis of the most appropriate option for the automated return system (machine, barcode).
- iii) Implement the proposed scheme in an iterative way, i.e. testing the design and feedback in order to adjust it for better operation.
- iv) Monitor and measure the operation results, both in an economic (especially cost of reimbursement) and in a technical way (for ex: how many units at a time are reimbursed)
- v) Feedback on the results of iterative implementation, review the design of the scheme and document partial and final results.
- vi) Develop Feasibility study. Develop Business model.
- vii) Based on final results, provide inputs to the design of the Replication Strategy within Output B5.

#### **Output B.5. Replication and Scale up Strategy, with associated market-oriented financial mechanisms.**

A replication and scale-up strategy will be defined in each of the cities to support the spread of technical and capacity-building project benefits based on the different pilot activities; to harness compliant treatment facilities and leverage their resources to make a better business case for their operation; to support any potential long-term cooperatives of informal waste collectors and initial processors, along with a mechanism to continue spreading of capacity to perform their activities according to standards; foster circular business models and public-private partnerships; propagate sustainable/green production principles and sustainable consumption; attract initial seed investment, and longer-term private sector investment and public revenue- generating models to sustain a profitable and effective waste management systems in the long term.

The strategy will also undertake an analysis of feasible financing alternatives at national, regional, and global levels to support the replication and scale-up. Performance indicators will be determined to monitor and track effective compliance and the achievement of desired impact.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output B.5:

a. Replication and Scale up Strategy developed: this activity will develop a replication and scale up strategy at metropolitan and national level based on the results of each of the pilot projects to be implemented within the scope of the project. This strategy will identify suitable mechanisms for proper dissemination and building capacity for key stakeholders to ensure outreach all relevant stakeholders. In particular, results from pilot projects, including the findings of the environmental and social assessments, implemented within Outputs B3, B4, C2, C3 and C4 will be considered in the strategy.

The strategy will also undertake an analysis of feasible financing alternatives to support the replication and scale-up. Performance indicators will be determined to monitor and track effective compliance and the achievement of objectives.

#### **China - Tianjin:**

The following activities will be developed to reach Output B.5:

a. Replication and Scale up Strategy developed: this activity will develop a replication and scale up strategy at Tianjin and national level based on the results of each of the pilot projects to be implemented within the scope of the project. This strategy will identify suitable mechanisms for proper dissemination and building capacity for key stakeholders to ensure outreach of them. In particular, results from pilot projects, including the findings of the environmental and social assessments, implemented within Outputs B4, C1, C2, C3 and C4 will be considered in the strategy.

The strategy will also undertake an analysis of feasible financing alternatives to support the replication and scale-up. Performance indicators will be determined to monitor and track effective compliance and the achievement of objectives.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output B.5:

a. Replication and Scale up Strategy developed: this activity will develop a replication and scale up strategy at Kocaeli and national level based on the results of each of the pilot projects to be implemented within the scope of the project. This strategy will identify suitable mechanisms for proper dissemination and building capacity for key stakeholders to ensure outreach of them. In particular, results from pilot projects, including the findings of the environmental and social assessments, implemented within Outputs B4, C2, C3 and C4 will be considered in the strategy.

The strategy will also undertake an analysis of feasible financing alternatives to support the replication and scale-up. Performance indicators will be determined to monitor and track effective compliance and the achievement of objectives.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output B.5:

a. Replication and Scale up Strategy developed: this activity will develop a replication and scale up strategy at Kocaeli and national level based on the results of each of the pilot projects to be implemented within the scope of the project. This strategy will identify suitable mechanisms for proper dissemination and building capacity for key stakeholders to ensure outreach of them. In particular, results from pilot projects, including the findings of the environmental and social assessments, implemented within Outputs B3, B4, C1, C2, C3 and C4 will be considered in the strategy.

The strategy will also undertake an analysis of feasible financing alternatives to support the replication and scale-up. Performance indicators will be determined to monitor and track effective compliance and the achievement of objectives.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output B.5:

a. Replication and Scale up Strategy developed: this activity will develop a replication and scale up strategy at Greater Tunis and national level based on the results of each of the pilot projects to be implemented within the scope of the project. This strategy will identify suitable mechanisms for proper dissemination and building capacity for key stakeholders to ensure outreach of them. In particular, results from pilot projects, including the findings of the environmental and social assessments, implemented within Outputs B3, B4, C1, C2, C3 and C4 will be considered in the strategy.

The strategy will also undertake an analysis of feasible financing alternatives to support the replication and scale-up. Performance indicators will be determined to monitor and track effective compliance and the achievement of objectives.

### **COMPONENT 3: SUSTAINABLE PRODUCTION AND CONSUMPTION AND MATERIAL MANAGEMENT**

**OUTCOME C: Enhanced sustainable production and consumption through clean production Certifications and eco-labelling of sustainable products and services.**

**Output C.1. “Hotspot” sectors of unsustainable consumption and production assessed and associated circular economy opportunities identified.**

Through this Output the project will support cities in assessments to identify current critical sectors where unsustainable consumption and production patterns have been identified. The assessment will identify industries and characterize their processes as well as assess products available in the local market to quantify available harmful chemicals (with focus on POPs and Mercury). The main purpose is to prioritize interventions and identify suitable circular economy opportunities (business models, industrial symbiosis, etc.) aligned to a zero-waste vision. Furthermore, the findings will support enhancement of political actions to reduce waste generation and hazardous substances and more effectively achieve local/national development planning goals by promoting sustainable production and consumption.

Until the economy has achieved partial or complete circularity, residual wastes that continue to be generated will need to be managed in an environmentally sound manner. In view of this transition the project will contribute to identify needs of segregation for different waste streams in cities with focus on those ones containing hazardous chemicals such as POPs/Mercury, Highly Hazardous Pesticides (HHP) or any other chemicals of concern, and evaluate available treatment, and disposal technologies in place. The project will support the introduction/adoption of Best Available Techniques (BAT) and Best Environmental Practices (BEP) to upgrade these treatment/disposal processes and avoid or minimize the emissions of POPs and/or Mercury releases. This Output will work on the improvement of existing treatment and disposal facilities (co-processing, incineration, sanitary/security landfills, etc.) as well as the introduction of alternative treatment and disposal practices within the cities. Within this activity, the assessment of health care waste management will be of particular interest.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output C.1:

a. Electric and electronics valorization in the value chain: WEEE contains an important diversity of materials, many of these materials are scarce and already defined as critical. In the country, the reuse and recycling capacity of these materials is low and in most cases the processes do not add value, resulting in the export of the high-value components. Through the identification and analysis of international precedents and good practices on technologies (BAT/BEP) for the recovery of materials included in WEEE, their feasibility of application in the metropolitan area will be evaluated. The objective is to identify suitable opportunities to expand the recovery processes in the country, taking into account the scale, in order to add more value and avoid the disposal of materials. In addition, the identification of POPs, mercury and other hazardous chemicals will be emphasized for ensuring sound management and minimize exposures to human health, mainly in informal practices.

b. Plastic pollution assessment (including life cycle analysis and risk analysis of the use of chemicals in plastic). This activity will encompass the analysis of the environmental impacts associated with different stages of the plastic's life cycle. Throughout each of these stages, an LCA evaluates various environmental impacts such as greenhouse gas emissions, energy consumption, water usage, land use, and pollution.

It aims to provide a comprehensive understanding of the environmental footprint of plastics, helping stakeholders identify opportunities for improvement and make informed decisions regarding material selection, product design, and waste management strategies.

In particular, the presence and risks resulting from hazardous chemicals will be analyzed and conduct feasibility studies to phase them out. In addition, the impact of eliminating single-use plastics will be analyzed and feasibility studies will be developed to support decision making.

c. Increase organic waste processing capacity in the metropolitan area.

In the pursuit of reducing waste disposal towards zero landfill, strategies will be developed to promote and/or strengthen composting practices, fostering synergies among the 3 municipalities. Through this activity the project will support the implementation of at least one demonstrative project in each municipality aimed at reducing the generation and landfilling of organic waste. Each demonstration project will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

At the same time, strategies will be developed to support existing composting plants in order to upgrade their operations and increase the added value of the produced products.

d. Follow-up of the dismantling process and management of mercury-containing waste from the chlor-alkali plant installed in the department of San José.

During the life of the project, the chlor-alkali plant will be dismantled and converted from mercury cell technology to mercury-free technology. In this process, it will be necessary to manage a very significant volume of mercury-containing waste. This activity is aimed at strengthening the monitoring and certification of the processes to be developed in the productive transformation associated with the management of liabilities and waste with mercury. The activity will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

#### **China - Tianjin:**

The following activities will be developed to reach Output C.1:

a. Assess the current situation of food waste classification, collection and disposal in Tianjin, and explore sustainable models to effectively enhance the capacity of community food waste classification, collection and reuse.

A community in Tianjin was selected to carry out a sustainable demonstration activity (150t/y) on the separate collection, recycling and reuse of food waste, to explore a sustainable management model for food waste by conducting a targeted assessment and developing a site-specific ESMP of the process of generating, separating, collecting and recycling food waste in the community, and examining the behavioral patterns of the community residents. Reduction and recycling of food waste will be achieved.

This activity will take into consideration the different behavioral patterns and decision-making roles for women and men in communities and determine roles and priorities for reducing and recycling of food waste.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output C.1:

a. Support Life Cycle Assessment (LCA) in Kocaeli's sectors where production is concentrated.

This activity will support LCA in facilities where production processes (such as plastics, metal and packaging production among others) are being done with the inclusion of scrap materials (such as metal, paper, plastic) complementary to the raw material. The objective of this activity is to identify negative environmental impacts (mainly linked to the presence/release of hazardous chemicals such as UPOPs) of existing processes and technically assist them for improvement (e.g. phase out/substitute chemicals of concern, minimize emissions/releases, etc.) and minimization of negative impacts.

For that purpose, the project will support at least three (3) pilot applications. Each pilot will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

b. Upgrade Existing Treatment and Disposal Processes.

This activity will support existing recycling facilities (such as packaging, electronics recycling among others) and disposal facilities (such as hazardous waste processing, hazardous waste thermal disposal) with focus on hazardous waste containing POPs/Mercury, Pesticides or other harmful chemicals. The objective is to upgrade existing treatment and disposal processes through the assessment and introduction of Best Available Techniques (BAT) and Best Environmental Practices (BEP) to minimize environmental impacts. For that purpose, the project will support at least three (3) process improvement practices. The activity will include a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

**Sierra Leone - Freetown:**

The following activities will be developed to reach Output C.1:

a. Upgrade Existing Treatment and Disposal Facilities: Dumpsites and Healthcare waste treatment.

**Dumpsites:** This activity will support the evaluation of existing dumpsites in Freetown: Kingtom and Grivelle bridge. The initial assessment will provide information of the baseline current operation in each of the dumpsites: waste streams (including available hazardous waste), volumes, traceability, and available management practices (the presence of open burning practices as well as informal workers activities will be considered). Based on this evaluation, a plan will be developed and implemented to enhance waste management practices in the mentioned dumpsites by promoting the implementation of environmentally sound management (ESM) of hazardous waste or other waste, best environmental practices (BEP) and best available techniques (BAT). The plan may introduce the Installation of weighbridges to provide accurate measurement, traceability, compliance and monitoring. In addition, it will also take into consideration local informal waste pickers in order to regularize and improve their working conditions by articulating with local authorities. This activity will undergo an environmental and social impact assessment (ESIA) to identify all associated risks and a site-specific ESMP developed and implemented to ensure that they are eliminated or reduced.

**Healthcare waste treatment:** the project will support the technical assessment of existing treatment and disposal technologies for health care waste management In Freetown.

This activity will be developed in close coordination with the Ministry of Health (The 34 Military Hospital) as the lead Agency on health-related issues.

Firstly, the project will ensure that there is a suitable segregation within the health facilities, including COVID waste segregation. Adequate segregation includes appropriate labelling and waste receptacle available in suitable areas at the point of generation. Additionally, on site transportation will be defined together with a storage location sized according to quantities and frequency of collection of each facility. Through this activity the project will also promote the prevention of waste generation in order to minimize volumes and enable sustainability. This activity will undergo an ESIA to identify all associated risks and a site-specific ESMP developed and implemented to ensure that they are eliminated or reduced.

To minimize hazardous chemicals emissions, the project will evaluate healthcare waste treatment/disposal technologies, technical and economically viable for each facility, design a plan to enhance the healthcare waste management through the introduction of BEP/BAT (by upgrading existing processes such as incinerators or introducing new ones) to ensure that waste that cannot be avoided is treated and disposed of in a safe, economical and environmentally sustainable manner. The options may include security cells, autoclaves, etc.

b. Hotspots of unsustainable production and consumption.

This activity will support the identification of critical sectors of unsustainable production and consumption in Freetown. The assessment will identify industries and characterize their processes as well as assess products available in the local market to

quantify available harmful chemicals (with focus on POPs and Mercury). The main purpose is to prioritize interventions and identify suitable circular economy aligned to the Zero Waste Strategy in Freetown. Furthermore, the findings will support enhancement of political actions to reduce waste generation and hazardous substances.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output C.1:

a. Assess and identify hot spots of unsustainable production within the textile and the automotive sector in Greater Tunis.

This activity will support the identification and characterization of existing production processes within the automotive and textile sector to quantify available harmful chemicals (with focus on POPs and Mercury). As a result of the assessment, this activity will provide recommendation on policies and action plans destined to reduce waste generation, increase reuse and recyclability on the products available in the market, as well as reducing/replacing hazardous chemicals towards sustainable production processes within the targeted sectors.

In alignment to this assessment, a strategy to enhance industrial symbiosis will be developed. To ensure this, a coordination body will be created between industrial associations available Greater Tunis to enable and foster communication, information exchange, collaboration, and partnerships among them to encourage the implementation of identified opportunities.

b. Strengthen RDF from non-recyclable waste process within the cement industry in Greater Tunis.

Currently, the Ministry of Environment is working on the development of two RDF related decrees: i) Decree establishing the conditions for the production and transport of RDF, ii) Decree establishing the conditions for the installations using RDF.

In addition, an RDF production process is now under development in Djebel El West cement plant, that is using non-recyclable textiles waste to produce RDF.

This activity will support the assessment of the ongoing RDF processes, destined to non-recyclable wastes, to ensure the proper alignment with Best Available Techniques (BAT) and Best Environmental Practices (BEP) to ensure the avoidance or minimization of POPs emissions and/or Mercury releases.

As a result of the assessment, recommendations for upgrading on going processes as well as giving technical inputs to improve the related decrees will be delivered.

c. Enhance green and food waste composting.

This activity aims to support the creation of a composting unit to provide Greater Tunis with installed capacity for green and food waste composting to decrease the landfilling of organic waste. Currently, there is no operative unit for composting treatment in Greater Tunis. The composting unit will be constructed and operated by an inter-communal body to be created by the 4 municipalities and the intermunicipal cooperation will be supported by the framework developed within Output B2. The project will technically support the design of the composting facility and will be operating within one of the partner municipalities. Each composting unit will undergo a targeted assessment and a site-specific ESMP developed and implemented to ensure that they are eliminated or reduced.

The produced compost will be offered for free, for citizens who bring their clean green and organic waste to the facility. The municipality can use the compost for its own gardening operations as well.

The creation of the green and food waste composting unit will consider the successful experience of Bizerte municipality in terms of organic waste composting. The project is running since 2019 and considered the main successful experience in the country.

#### **Output C.2. Capacity built in industries, designers, and producers based on green chemistry and circularity principles, and demonstration of cleaner production to design/phase out chemicals of concern and waste.**

Through this Output the project will support demonstration activities to evidence effective practices to phase out chemicals of concern (with focus on POPs/Mercury) in prioritized value chains identified in the cities. The activity will conduct facility/entity assessments and subsequently train industries and private sector entities on the assessment/selection and introduction of safer/cleaner alternatives into existing processes, the optimization of production processes (cleaner production) and familiarize them with the benefits of safer alternatives and cleaner production processes. This activity will contribute to minimizing harmful substances contained in products and consequently in waste streams, facilitating the recovery and recycling of materials, thus diverting waste from landfills as well as minimizing impact to health and the environment.

The following sectors have been identified by the cities for the development of the pilot activities: Electronics; Building and Construction; Packaging; Textiles; and Automotive.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output C.2:

a. Call for proposals to support business models aligned to the Zero Waste Strategy. This activity will design and implement a Competitive Fund for initiatives that develop business models aligned to the zero-waste strategy in the metropolitan area, with focus on electronics, organic and plastic packaging. It will be designed as a competitive and transparent process to finance initiatives and among the criteria to be included in its design is that MSMEs will be prioritized, especially those led by young people and women. The design should include at least the criteria for the selection (which will include environmental and social criteria, as well as gender criteria) and evaluation of proposals, the formats for the presentation of proposals, the processes to be followed, calls for proposals, monitoring and evaluation systems, among others. A strategy for the dissemination of the Competitive Fund must also be developed, ensuring the participation of women's groups and women's business associations. As a result of the evaluation process, at least 8 MSMEs will be selected within the metropolitan area to receive support from the Project. There will be two calls (estimated budget for each call is \$425,000). At least four projects will be selected in each call, and each project will have a maximum duration of 18 months. The calls will be designed in order to operate with the project's fundings and private sector counterpart.

The prioritized proposals should encourage activities destined to the reduction of waste generation, with emphasis on packaging waste, WEEE and organic waste. The selection criteria will be determined by the project steering committee and the selection will be made through an open and competitive process. This will be followed by an environmental and social screening of the selected activities to determine the need for a targeted assessment and an ESMP based on identified associated risks. This activity aims to select at least 4 women-led initiatives.

Pilot projects are expected to address:

- Packaging: reduce packaging waste; phase-out of harmful chemicals from plastic production; increase reuse and recyclability; identify and introduce alternatives to harmful chemical additives.
- Electronics: increase reuse and repair services; reduce waste generation; phase-out of harmful chemicals of concern, etc.
- Organic: reduce waste generation; design of organic waste management tools and models, phase-out of harmful chemicals of concern, substitution of chemical fertilizers by organic fertilizers, etc.

#### **China - Tianjin:**

The following activities will be developed to reach Output C.2:

a. Carry out demonstration activities to reduce toxic and harmful chemicals in automotive coating additives.

Demonstration including:

Reduction of UV-328 through technological transformation and equipment upgrading.

Reduce greenhouse gas emissions through energy conservation, adoption of clean energy, etc. Reduce waste and chemical generation in the production process through green packaging and green procurement, etc.

The project will support the implementation of at least 1 (one) demonstration activity to reduce toxic and harmful chemicals in automotive coating additives. The criteria for implementation of these projects will be defined by the Coordinating Committee once the project is initiated. The activity will include a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output C.2:

a. Call for project proposals.

This activity will support the development of a competitive fund for initiatives that develop business models in the intensive industrial sectors in Kocaeli aimed at promoting eco-design and sustainable production processes aligned to the zero-waste strategy. The following industries will be of special interest: construction, automotive, packaging, and chemical. The project call will be conducted openly and competitively in cooperation with Kocaeli Chamber of Industry, ensuring coordination with women's groups



and women's business associations, such as the Kocaeli Association of Business Women and Executives (KOİDER) and Foundation for the Support of Women's Work (KEDV). The Call design should include at least the criteria for the selection and evaluation of proposals (gender criteria for selection will be ensured), the formats for the presentation of proposals, the processes to be followed, calls for proposals, monitoring, and evaluation systems, among others. The evaluation criteria will include: waste reduction, use of substitute chemicals or alternative materials instead of harmful chemicals, use of recovered materials instead of raw materials, and eco-designs that will prevent the release of UPOPs, among others to be determined during project implementation ensuring its alignment to sustainable production and social and environmental standards.

This activity will support the implementation of at least five (5) selected initiatives, aiming to support at least 2 women-led initiatives. Each initiative will undergo an environmental and social screening to determine the need for a targeted assessment and an ESMP based on identified associated risks.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output C.2:

a. Enhance plastics packaging production. This activity will be implemented in close coordination with Milla Group of Companies, a major player in the plastic industry in Freetown.

This activity will support the assessment of plastics packaging production processes (design, manufacturing process and raw material used) within Milla Group and implement a demonstration activity to enhance plastics packaging production through phase out chemicals of concern by identifying suitable green alternatives, increase products recyclability, and prevent plastics packaging waste generation. Common types of plastic include low-density polyethylene (LDPE); polyvinyl chloride (PVC); high-density polyethylene (HDPE); polystyrene (PS); polyethylene terephthalate (PET); and polyurethane (PUR) which may contain chemicals of concern to humans.

This activity will conduct a targeted assessment of the planned activities and develop an ESMP based on identified associated risks.

For the implementation of the demonstration activity, the following will be considered:

Pilot and conditions design:

Scope: enhance plastics packaging production processes by considering the following interventions: phase out chemicals of concern, increase recyclability in products, and prevent plastics packaging waste generation.

Targets: Set suitable targets (percentage) for the interventions: waste reduction; chemicals substitutions; recyclability.

Plastics Packaging materials: LDPE; PVC; HDPE; PS; PET; PUR.

Stakeholders: Milla Group; Brands, Retailers.

Operative steps:

Conduct an assessment of existing plastics packaging production processes. Select a "low hanging fruit" plastic packaging production process which is easier to support in its enhancement.

Design accurate proposals which will include a business model for enhancement production processes through phasing out chemicals of concern, increasing products recyclability, and preventing plastics packaging waste generation.

Define the most appropriate product and facility selection for the implementation of the demonstration activity.

Implement the proposed interventions and business model.

Monitor and measure the substitute product results, both in an economic and in a technical way.

Feedback on the results of iterative implementation, review the design of the scheme and document partial and final results.

Develop Feasibility study

Develop Business model

Based on final results, provide inputs to the design of the Replication Strategy within Output B5.

This demonstration activity will provide technical inputs for the development of regulatory frameworks, including incentives, to encourage plastic packaging manufacturing industries to innovate green solutions and redesign systems that will help their operations phase out harmful chemicals in products.

b. Enhance local textiles production.

This activity will be carried out in partnership with three (3) women's groups on local textile industries (Gara tie-dyeing) in Freetown. This activity aims at phasing out the use of harmful substances in their production, such as PFOS (Perfluorooctanesulfonic acid), PFOAS (Perfluorooctanoic acid), PFHXS (Perfluorohexanesulfonic acid), SCCP (Short-Chain Chlorinated Paraffins), and POPs (Persistent Organic Pollutants) flame retardants, and the need to provide safer measures. This industry is one of the fast-growing industries with a lot of young people, a larger percentage are women, with low knowledge of the impact of hazardous materials. The demonstration project will showcase the use of safer alternatives and best practice through innovative means in the textile production process. This will eventually support the collaboration between innovators, fiber producers, chemical suppliers, and brands to develop and demonstrate alternative processes, materials, and/ or green chemicals.

This activity will conduct a targeted assessment of the planned activities and develop an ESMP based on identified associated risks.

For the implementation of the demonstration activity, the following will be considered:

Pilot and conditions design:

Scope: enhance local textile production processes by phasing out chemicals of concern.

Targets: Set suitable targets (percentage) for the interventions: chemicals substitutions.

Potential chemicals to address: PFOS, PFOAS, PFHXS, SCCP, POPs flame retardants.

Stakeholders: Women's groups on local textile industry.

Operative steps:

Conduct an assessment of existing textile production processes.

Design accurate proposals which will include a business model for enhancement production processes through phasing out chemicals of concern.

Define the most appropriate product and facility selection for the implementation of the demonstration activity.

Implement the proposed interventions and business model.

Monitor and measure the substitute product results, both in an economic and in a technical way.

Feedback on the results of iterative implementation, review the design of the scheme and document partial and final results.

Develop Feasibility study

Develop Business model

Based on final results, provide inputs to the design of the Replication Strategy within Output B5.

**Tunisia – Greater Tunis:**

The following activities will be developed to reach Output C.2:

a. Implement a demonstration activity to phase out chemicals of concerns in the textile industry.

In line with the assessment conducted within Output C.1, this activity will partner with identified industries in Greater Tunis which are currently using chemicals of concern in their processes. Through this activity the project will support the demonstration of alternative processes enabling the substitution/or reduction of harmful chemicals by introducing and testing green alternatives in existing processes.

For that purpose, production processes assessment will be conducted at first to develop an accurate proposal for the process redesign through the introduction of suitable alternatives. The proposed redesign will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure identified environmental and social risks are addressed. Targets and required properties will be defined and effectively monitored throughout the implementation of the demonstration activity.

The Implementation of the proposed process will be done in an iterative way, i.e. testing the design and feedback in order to adjust it for better operation. Monitor and measure the operation/process results will be conducted, both in an economic and in a technical way. The feedback on the results of iterative implementation, will support the review of the process design, and every partial and final results will be documented. Subsequently a feasibility study and a business model will be developed. Based on final results, provide inputs to the design of the Replication Strategy within Output B5.

b. Implement a demonstration activity to increase packaging recyclability.

In line with the development of the EPR regulation for packaging in Output A4- b, this activity will involve packaging manufacturers and industries in Greater Tunis. This activity will support the assessment of the recyclability of identified packaging products to increase its circularity. It will include a targeted assessment and a site-specific ESMP will be developed and implemented to ensure identified environmental and social risks are addressed.

This activity is in line with the law 96-41 of 10 June 1996, packaging must be manufactured so as to be limited in volume to the minimum necessary for the protection and marketing of the product. To facilitate recycling or reuse, packaging must be: made with the minimum of raw materials, non-compound and non-toxic materials, recyclable materials.

This demonstration activity aims, after the identification of potential packaging products and industries, the examination of 5 packaging products to:

- Depict objective information about the status of the recycling capability of packaging, including the compositional quality of the object and the real recycling options after usage;
- Develop an action plan on the optimization of the recyclability level of targeted 5-packaging products.
- Execute the necessary optimization recommendation of the assessment for at least 2 targeted packaging products.

This activity should be supported by the international center of environmental technologies of Tunis and the technical center of packaging, both based in Greater Tunis. This activity should interconnect with the activity C3 'Recycle and Design.'

### **Output C.3. Feasibility studies and piloting activities carried out to increase recycling and reuse of materials in key value chains. Circular business models developed.**

The adoption of circular economy models is a necessary condition for the cities to achieve their zero-waste vision. Through this Output the project will support feasibility studies to introduce circular economy principles in prioritized value chains: i) eliminate waste and pollution, ii) circulate products and materials (at their highest value), and iii) regenerate nature. The analysis consists in exploring technical, quality, material efficiency, economic and financial dimensions of circularity applied to specific value chains to ensure sustainability and needs met for every stakeholder.

Piloting activities will be also supported to provide evidence in the field of the implementation of sustainable business models. Concrete actions will be implemented towards: i) maintaining, reusing, refurbishing and remanufacturing end-of-life products; ii) Enhanced product design for circulation back into the economy by facilitating its recycling, repair and/or durability and iii) Enhanced energy and material efficiency in production processes. Every key stakeholder of the value chain will be identified and engaged from the beginning. The piloting activities scalability will result in a significant increase in recycling and reuse of products and materials in key value chains.

The following value chains have been identified by the cities to promote circularity business models: Electronics; Plastics Packaging; Food; Transportation (end-of-life tires).

Linked to the Gender Action Plan (Annex 10), this activity will ensure equally engagement of women and men in training and business opportunities, including through targeted training and improved financial access, among others.

### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output C.3:

a. Develop a programme for the 'high quality' recycling of plastics, ensuring the control and monitoring of additives and POPs.

Implement pilot projects for high quality recycling of plastic packaging to enable the implementation of new requirements for the presence of recycled material in single-use plastic packaging.

This line of action will be developed in collaboration with the Plastic Technology Center (CTPLAS) and the Association of Plastic Industries of Uruguay (AUPI) through the implementation of at least 2 pilot projects focusing on plastic packaging. Currently, there are requirements for the presence of recycled material in PET bottles, and the intention is to progress in additional requirements for the presence of recycled material in other PET packaging, polyethylene, and polypropylene products. Each pilot project will include a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

Additionally, this line will include actions aimed at ensuring the quality of materials to prevent the presence of Persistent Organic Pollutants (POPs) contamination in the recycling chain.

b. Implementation of demonstration projects with social inclusion of sorters that result in a high impact on the circular economy, reduction of GHG emissions and POPs. This line involves the implementation of at four (4) demonstration project (at least one per municipality) aimed at integrating zero waste strategies ensuring social inclusion strategies.

These projects should address the following lines of action:

- Construction: within this sector the following activities will be considered: better management of waste during construction and demolition, increase amount of recycled content, include more advanced material segregation practices/techniques.

- Electronics: within this sector a special focus on large electrical and electronic equipment will be considered. Activities will be destined to extend lifetime and improve product recyclability and ease of dismantling to facilitate the recovery of resources and reusable components.

- Packaging: within this sector capacity building for non-plastic packaging alternatives and increase product recyclability ensuring non harmful chemicals in products will be considered.

- Sustainable Consumption: community approaches to promote sustainable consumption and actions which ensure engagement of the population in zero landfill strategies. The activities may include the strengthening of education and encourage behavioral changes, both in consumption and in minimization of waste generation as well as segregation at source.

The criteria for implementation of these projects will be defined by the Coordinating Committee once the project is initiated and a transparent selection process will be ensured. Each demonstration project will include a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

#### **China - Tianjin:**

The following activities will be developed to reach Output C.3:

a. Demonstration on material recovery and reuse in the key value chain of electronics production.

Demonstrations on sustainable production including:

1. Reducing the introduction of chemicals into the production process through upstream green value chain management and the use of green raw materials;

2. Reducing the use of product raw materials and increasing product recycling rates through, for example, the use of recycled materials in products, extended product life, and renewable and easy-to-recycle product design, thereby reducing the amount of waste generated;

3. Increase the recyclability of product packaging and reduce the generation of packaging waste by means of green product packaging and renewable and easy-to-recycle designs;

4. Enhance the recycling rate of waste through extended management of downstream disposal enterprises.

The project will support the implementation of at least two (2) BAT/BEP for Sustainable Production of Electronic Products. The criteria for implementation of these projects will be defined by the Coordinating Committee once the project is initiated. The activity will ensure a targeted assessment and a site-specific ESMP will be developed and implemented to ensure all associated environmental and social risks are addressed.

## b. Demonstration on sustainable collection of recyclables from household sources (daily life related)

Promote the establishment of a trading platform to facilitate the recycling and reuse of low-value recyclables and promote the recycling and reuse of low-value recyclables from household sources through e-commerce platforms or APPs. Women's access to e-commerce platforms or APPs will be assessed and ensure that activities respond to barriers and concerns to allow women's equal engagement, ease of use and interaction.

The project will support the implementation of one (1) demonstration activity to encourage the increase of recyclables materials from households' sources.

### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output C.3:

a. Develop strategy to increase organic waste circularity and processing capacity in the metropolitan area and develop pilot projects.

The strategy will consider the following alternatives: i) substitution of chemical fertilizers by organic fertilizers; ii) Production of animal feed from cooked food waste and/or food waste.

The following activities will be carried out for the pilot demonstration: i) determining separate and/or common compost areas by examining organic waste sources (marketplaces, markets) ii) preparing a feasible collection program for the use of common compost areas of municipalities iii) conducting pilot applications of at least 3 common compost facilities; iv) Develop a business model feasibility analysis for the alternatives uses (organic fertilizers and animal feed).

The demonstration activity will conduct a targeted assessment and develop a site-specific ESMP to ensure identified environmental and social risks are addressed.

b. Demonstration of appropriate technology to produce high-value components by cleanly collecting and/or separating recyclable waste (electronic waste, plastic packaging waste, bulky waste (such as tires, household goods) in the metropolitan area. The high-value components obtained can be evaluated as products within the framework of the circular economy. In addition, this effort will support the use of recyclable materials instead of materials that have a permanent impact on the environment.

This activity will support the implementation of one pilot project. The pilot project will conduct a targeted assessment and develop a site-specific ESMP to ensure identified environmental and social risks are addressed.

The following activities will be carried out i) determining the most produced waste fractions by examining the recyclable waste compositions in the city, ii) selecting commercial waste groups related to the selected waste fractions, iii) design and test a collection system for clean and separate collection of the selected commercial waste groups iv) Establishing a sales network and ensuring recycling by collaborating with the private sector that processes separately collected commercial waste groups.

### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output C.3:

a. Enhance food recyclability.

This activity aims to enhance the food value chain by adopting measures to reduce food waste generation, encourage segregation at source, adopt suitable sound treatment practices/technologies, and develop business models for recycling the organic waste into the following alternatives: i) organic fertilizers production; ii) production of briquettes from local waste materials at hard-to-reach communities.

This activity will include a targeted assessment and a site-specific ESMP will be developed and implemented to ensure identified environmental and social risks are addressed.

The following activities will be carried out: i) Engage community, markets and other relevant stakeholder; ii) Define measures and provide training to reduce food waste generation and encourage its segregation at source iii) Determine areas (common or separate) where to collect organic waste for treatment; iv) Develop business models and conduct technical and economic feasibility analysis for both alternatives; v) Implement business models for both alternatives; vi) Monitor and measure results (based on defined targets); Based on final results, provide inputs to the design of the Replication Strategy within Output B5.

b. Enhance end of life tires recycling.

This activity will support the implementation of a demonstration activity to effectively collect, and sound recycle end of life tires. This is an issue of serious concern, because there is ongoing indiscriminate disposal of car tires, without any effort to recycle. This activity will encompass the development of a business model that ensure the recycling of these tires into suitable products.

This activity will include the development of feasibility studies (technical, social, environmental and economic) and develop a business model for a suitable alternative for recycled tires that includes a targeted assessment and site-specific ESMP for the selected alternative. This may consider the production of construction-related products (such as waterproofing in constructions – houses, buildings), as well as co-processing in cement kilns (existing companies: LEOCEM CEMENT, DANGOTE CEMENT AND MACCEM CEMENT). This activity will be carried out in partnership with the EPA SL, Ministry of works and housing and the Freetown City Council.

Based on final results, provide inputs to the design of the Replication Strategy within Output B5.

c. Enhance electronics recycling from lead-acid batteries used in vehicles and solar cells.

This activity will be implemented in close coordination with SHALIMAR - tricycle entrepreneurs and Kriss Enterprise, which is a lead acid battery recycling company. The pilot project aims at repurposing electronic e-waste tricycle, motor bike, motor vehicle and solar batteries for reuse, thereby cutting down on e-waste ending up at dumpsites. Interventions will be destined to enhance recycling process by introducing BEP/BAT to increase the reuse and recycle of those materials or components that are feasible, as well as reduce the release of harmful chemicals and it's sound management.

The pilot project will conduct initial assessments of existing processes and design accurate proposals which will include a business model for enhancement useful life and recycling of materials and components. This activity will ensure the development of feasibility studies and the proper monitoring and measuring of the implemented, both in a technical and economic way. It will also include a targeted assessment and site-specific ESMP that addresses identified environmental and social risks. And, based on final results, provide inputs to the design of the Replication Strategy within Output B5.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output C.3:

a. Enhance electric and electronics equipment circularity.

This activity will support a demonstration activity destined to increase the repair, reuse, refurbish and remanufacture rate of electric and electronic equipment.

In line with the development of the EPR regulation for WEEE in Output A.4, this activity will partner with identified EEE industries and producers in Greater Tunis. The development of this activity will support the demonstration of potential recovery, repair, reuse, refurbish opportunities of their EEE products at their end of life, which can contribute to the reduction of waste and harmful components by giving more lifetime to the product.

The demonstration activity will identify 3 EEE manufacturers and 20 small businesses in Greater Tunis; design a project aiming the recovery of old target EEE to be repaired or refurbished; involve the manufacturers in the process of repair and refurbish in Tunis (offering acceptable prices) and engage them to give technical support to identified small businesses on repair and refurbishing of their related EEE. This activity will ensure to engage women entrepreneurs and women-owned businesses on refurbish and repair of products. The selection of EEE manufacturers and businesses will include gender criteria aiming for equal number of women and men involved. Selection of the activities will undergo an environmental and social screening to determine the need for a targeted assessment and an Environmental and Social Management Plan (ESMP) based on identified associated risks.

The project will put in place indicators to follow up the performance of the activity and assess possible improvement measures. This activity needs to be supported by a communication campaign to inform the consumers of the operation, the repair and refurbishing zoning and importance.

This activity will provide technical inputs that could be useful for extending the activity to other kinds of EEE, aligned with EPR framework decree to be developed, and to other regions of the country.

b. Design and implement a demonstration activity on 'Recycle and Design'.

The objective of this activity is to provide technical evidence to the local industries, as well as local and national authorities, on the design (and manufacture) of products from recycled plastics. This activity will be developed in close coordination with the plastics industry, Tunis International Center for Environmental Technologies (CITET), and Packtec, with support of the Ministry of Environment and the Ministry of Industry, Energy and Mines.



In addition, the demonstration activity will encompass the introduction of eco-design principles in the packaging sector.

For that purpose, production processes assessment will be conducted at first to develop an accurate proposal for the process redesign through the introduction of eco-design principles and recycled plastics. The proposed redesign will undergo a targeted assessment and a site-specific ESMP will be developed and implemented to ensure identified environmental and social risks are addressed. Targets and required properties will be defined and effectively monitored throughout the implementation of the demonstration activity.

The Implementation of the proposed process will be done in an iterative way, i.e. testing the design and feedback in order to adjust it for better operation. Monitor and measure the operation/process results will be conducted, both in an economic and in a technical way. The feedback on the results of iterative implementation, will support the review of the process design, and every partial and final results will be documented. Subsequently a feasibility study and a business model will be developed. Based on final results, provide inputs to the design of the Replication Strategy within Output B5.

#### **Output C.4 Demonstration activities on innovative tools to foster sustainable consumption in public and private sectors, and consumers.**

Promoting sustainable consumption, in public and private sectors and consumers, is equally important to limit negative environmental and social externalities as well as to provide markets for sustainable products. Through this Output the project will support cities in implementing specific tools enabling consumers' engagement in sustainable purchasing practices. In partnership with key stakeholders, the following tools are being considered by the cities: Sustainable Certification, Green Packaging, Ecolabelling.

Demonstration activities to encourage sustainable consumption will also be directed to educate consumers about the criteria and standards of ecolabels, the benefits of certifications (trust and environmental performance), as well as educating on waste reduction at source and sorting at source, recycling, and reuse of products/materials. The development of user-friendly digital tools to support sorting at source and recycling will be assessed and developed.

This activity will be complementary to Output A.4 which will support the drafting of the suitable policies, regulations, and incentives to encourage behavioral change at scale on the consumption side ensuring the demand of greener products/services and production processes.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output C.4

- a. Implement certification mechanisms for products and packaging with recycled material (including demonstration activities - testing).

This activity includes the development of protocols and certification mechanisms at national level to ensure the presence of recycled material in products. In coordination with the Plastic Technology Center and the Technological Laboratory of Uruguay (LATU) demonstration activities for testing and certification will be implemented.

At least four demonstration projects involving certification schemes for the presence of recycled material in products will be executed. These projects will be executed in agreement and coordination with the private sector, with the participation of CTPlas (Plastics Technology Center) LATU and the academic sector.

#### **China - Tianjin:**

The following activities will be developed to reach Output C.4

- a. Carry out green packaging certification for no less than five enterprises.

Currently there are available Green Packaging Certification guidelines at national level, this activity will support the implementation of these guidelines in at least five (5) enterprises to obtain green packaging certification.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output C.4

- a. Support Kocaeli's cities to develop tools to encourage sustainable purchasing by consumers.

This activity will include: i) Identification of criteria for products/services to be labeled (addressing environmental impacts throughout the life cycle of the product, including production, use and disposal) to promote eco-labelling.; ii) Identification of a specific sector or product category to promote Sustainable Certification and conducting a pilot application to develop a certification standard (including criteria regarding the environmental and social performance of the certified product, service or organization); iii) Promoting green packaging by assessing packaging needs, developing packaging designs, testing and evaluating the designed packaging, developing marketing and communication strategies.

b. Promoting large-scale behavioral change on the consumption side, leading to increased demand for green products/services and producers.

This activity will support awareness raising activities to ensure the understanding on the benefits of the green certifications (trust and environmental performance) by the consumers.

This activity will ensure the assessment and consultation with women consumers in households and communities to determine consumption decision-making factors, such as cost, accessibility, reuse potential, environmental benefits, etc.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output C.4

a. Zero waste certification for 30 entertainment spots (hotels, restaurants and night clubs) along the beaches.

This activity will support the development of a zero waste certification standards to be implemented in restaurants, night clubs, and hotels within the coast of Freetown. This certification will encourage minimizing waste generation, sorting at source, replacement of single use plastics, reuse and recycling practices as well as other guidelines to support sustainable business models (eg. Energy efficiency). This activity will be carried out as an innovative tool in partnership between government entities (EPA-SL and the National Tourist Board-Sierra Leone) and entertainment industry. Certification mechanisms will be also developed.

The activity will support the implementation of these standards in 30 entertainment spots (hotels, restaurants and night clubs) along the beaches. This activity will ensure a comprehensive assessment of the about 30 entertainment spots and to evaluate their current environmental impact and sustainability practices. Therefore, this assessment will provide recommendations based on a needs for an improvement through the assessment findings. These entertainment facilities will be evaluated to verify the compliance of the established standards and will receive the zero-waste certification. In addition, continuous update and refine on the certification criteria and framework will be based on lessons learned and emerging best practices.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output C.4

a. Design and implement a 'Zero waste programme in tourism'.

This activity will support the design of a zero-waste programme to be implemented in the touristic sector, in particular hotels. This programme will define guidelines to encourage minimizing waste generation, sorting at source, replacement of single use plastics, reuse, and recycling practices as well as other guidelines to support sustainable business models (eg. Energy efficiency).

The activity will technically support 20 hotels in Gammarth in implementing these guidelines. For that purpose, a preliminary assessment of the hotel's practices will be developed, and an action plan will be designed and implemented towards the zero-waste goal.

This activity will provide technical inputs for the development of local regulations (aligned to the national framework) destined to ban problematic and single use plastics.

This activity will build on success of [Visit Tunisia Project](#) implemented by USAID to promote women-owned businesses in reducing waste generation and empowering women.

b. Green Packaging development.

Based on the demonstration activities within Output C2 "Increase Packaging Recyclability" and C3 "Recycle and Design", this activity will support the assessment and definition of green packaging standards applicable to the packaging industry.

### **COMPONENT 4: TRAINING, EDUCATION, ADVOCACY, AND EVALUATION AT CITY AND NATIONAL LEVEL**

**OUTCOME D: Lessons learned captured and disseminated, awareness raised, and project results monitored.**

## **Output D.1. Communication strategy implemented and awareness raised to encourage behavior change.**

Through this Output the project aims to raise awareness (through education and awareness raising campaigns) among consumers, manufacturers, waste generators, and any other key stakeholder group to:

Better understand the environmental, social, and economic impacts of the current take-make-dispose economic model and create demand for greener, safer, healthier, and more sustainable products and business models.

Support government and private sector partners in designing and rolling-out intuitive and clear labelling and supply chain transparency requirements to facilitate greener procurement and increased recycling.

Support awareness raising on the phase-out of harmful products and materials and the introduction of safer and greener alternatives.

Support awareness raising on waste sorting at source among national, regional and local waste generators.

Support communication and education to support waste diversion programmes and litter reduction.

Support the waste sorting campaign to citizens and the dissemination of useful tools (such as digital tools (applications) for sorting) and the distribution of useful items (such as bags, composting bins, differentiated garbage cans, etc.)

Support dissemination of best practices and best available technologies in waste prevention, recycling and management through global, regional and national awareness raising campaigns and platforms.

Lessons learned during project implementation will be periodically and systematically captured and documented in suitable formats for proper dissemination. This Output will ensure that the knowledge generated by the project will be available to the target groups which will benefit from it in their specific activities.

### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output D.1:

a. Develop educational communication on consumption and circular economy aspects aimed at reducing waste generation and landfilling, for different audiences, integrating aspects of environmental education, behavioral change and participation.

This activity involves the generation of content and the development of educational communication materials to strengthen the implementation of the zero-waste strategy and its outreach to different audiences. It will consider: i) communication, education and awareness-raising actions for sorting at source and management of organics at source; ii) prevention of endemic landfills. Close monitoring of citizens in behavioral changes; iii) a) dissemination of successful experiences, recovery of traditional practices that minimize waste; iv) developing synergies with the education sector to encourage sustainable consumption practices (reduce single-use plastic and food losses and waste).

b. Strengthen the implementation of Montevideo's communication strategy. This activity seeks to strengthen the communication strategy at Montevideo aligned to the Metropolitan Zero Waste Strategy, the Municipal Waste Management Plan and Action Plan. The main activities to be carried out are: i) Improve current communication strategy framework and support its implementation.; ii) Define and implement dissemination activities (such as workshops) to implement the strategy aligned to the educational communication developed by the project.

c. Develop and implement the San José's communication strategy. This activity seeks to support San José in developing and implementing the communication strategy aligned to the Metropolitan Zero Waste Strategy, the Municipal Waste Management Plan and Action Plan. This activity will define and implement dissemination activities (such as workshops) to implement the strategy aligned to the educational communication developed by the project.

d. Strengthen the implementation of Canelones's communication strategy. This activity seeks to strengthen the communication strategy at Canelones aligned to the Metropolitan Zero Waste Strategy, the Municipal Waste Management Plan and Action Plan. It will ensure support to the 'Sustainable Homes Programme', which encompasses a strong process of engagement with neighbors that is key to achieving zero waste at the household level. This activity will define and implement dissemination activities (such as workshops) to implement the strategy aligned to the educational communication developed by the project.

e. Improve the participation and engagement of municipalities (third level of government) and CSO in the zero-waste strategy.

This activity aims to strengthen the involvement of the third level of government and CSO, including women's groups and women-focused CSOs in municipalities, in the Waste Management Plans and the Metropolitan Zero Waste Strategies developed by the project.

The main tasks to be carried out include: a) Promote the participation of the third level of government in each of the municipality participating in the project, b) Foster dialogue among relevant actors (participation), promote decentralization, territorial and gender approach, c) Assist in the implementation of the Gender Action Plan, d) Promote the articulation with key bodies (among them: Ministry of Social Development, Ministry of Labour and Social Security, Congress of Mayors, Plenary of Municipalities), e) Support the implementation of the stakeholder engagement plan.

#### **China - Tianjin:**

The following activities will be developed to reach Output D.1:

a. Conduct professional and technical training on solid waste management, including personnel from waste management-related sectors, private entrepreneurs, industry associations and others.

Conduct professional and technical training on solid waste management, including personnel from waste management-related sectors, private entrepreneurs, industry associations and others. Equal gender representation in professional and technical training for personnel will be ensured, as well as gender considerations and content in trainings.

b. Carry out publicity activities, including an annual campaign on the theme of 'International Zero Waste Day', an annual campaign on the theme of 'zero waste city', and media campaigns.

International Zero Waste Day and Zero Waste City campaign per year;

Publicity campaigns in new media (e.g., newspapers, television, radio, Internet, APP, etc.).

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output D.1:

a. Support awareness-raising through education and awareness campaigns among consumers, producers, marketers, waste producers and other key stakeholder groups.

This activity includes the support to the training and awareness activities currently being carried out by the Kocaeli Environment, Urbanization and Climate Change directorate. These training activities are included in the Zero Waste Management Action Plan and will ensure gender considerations.

b. Organize training and awareness activities in line with the Kocaeli's Zero Waste Action Plan (Output A.1).

This activity may include: i) Establishment of the City Environmental Training and Awareness Center; ii) Development of training activities (such as Zero Waste Nature Camp, theater, interactive games, etc., preparation of promotional products); iii) Design and implement application gardens for awareness-raising activities in schools, ensuring girls and boys have equal access; iv) Strengthening Environmentally Friendly Education and Awareness Centers for WBCs.

c. Support the waste sorting campaign for citizens and the dissemination of useful tools (such as digital tools, mobile applications) for sorting and the distribution of useful items (bags, compost bins, different bins, etc.).

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output D.1:

a. Review, refine, and optimize the existing waste communication strategy to promote stakeholder participation, behavior change, and advance waste reduction and recycling efforts.

This activity will be carried out along with consumers, manufacturers, waste generators, and any other key stakeholder group in the review process of the existing waste communication strategy. This aims at the identification of areas for necessary improvement and refining a better approach to its objective. This activity will include issues around increasing recycling rates, reducing contamination in recycling bins, promoting composting, or raising awareness about hazardous waste disposal. The targeted audience will be reached through surveys, interviews, or focus groups to gather insights into their awareness, attitudes, and behaviors related to waste management will also be carried out.

This activity will ensure that surveys, interviews, and focus groups, aim for equal engagement of women and men, and incorporate gender research questions to better understand gendered roles, awareness, attitudes, and behaviors in waste management.

b. Establishment of Zero Waste School Clubs to promote awareness raising on waste reduction, recycling, and sustainable consumption among schools.

This activity will be done in partnership with secondary schools, and it aims for an effective way to raise awareness about waste reduction, recycling, and sustainable consumption among students (young people). This activity will help in the launch of awareness campaigns and events to promote Zero Waste practices within secondary schools and beyond. This will be done as follows: Zero Waste Week, Plastic-Free Fridays, Earth Day celebrations, and Recycling Competitions.

This activity will ensure equal engagement of number of girls and boys.

c. Carry out an educational and advocacy campaign through TV and radio programs on behavioral change regarding Zero Waste on anti-littering and phasing out the use of harmful chemicals.

This activity will be done in partnership with Freetown City Council, Civil Society Organizations, local communities, and the fourth estate-Media, as a way to raise awareness about Zero Waste principles, promote behavior change to reduce waste generation, and advocate for the elimination of harmful chemicals. This activity will develop key messages that highlight the importance of sustainable waste management practices and the health, and environmental hazards associated with harmful chemicals. An audience of about 2 million people for the campaign, including demographics, interests, and media consumption habits will be targeted. The TV and radio channels will develop a time slot for engagement programs, that will include a mix of educational content, interviews with experts, testimonials from community members, and engaging storytelling to capture audience attention and drive behavioral change.

d. Promote the cleanest zonal competition among communities as a way to encourage behavioral change and the phasing out of harmful chemicals on Zero Waste practices.

This activity will be carried out by the Freetown City Council, Civil society organization, and community stakeholders, to promote Zero Waste practices, reduce littering, and phasing out harmful chemicals through community engagement. This activity will enhance a plan that will outline the scope of the competition, including the participating zones, duration, evaluation criteria, and prizes that participants can benefit. These activities will also constitute the launch of a promotional campaign to raise awareness about the Cleanest Zonal Competition and its objectives. Also, utilize various channels such as posters, flyers, social media, local newspapers, community meetings, and word-of-mouth to reach residents and encourage participation.

e. Celebration of Zero Waste Day on March 30 yearly

This activity will be done in partnership with the Freetown City Council, Ministries, Departments and Agencies environmental organizations, community groups, schools, businesses, and other stakeholders. The activity aims to raise awareness about waste reduction, promote sustainable practices, and inspire action towards a zero-waste future. This will be determined by the kind of format and activities for the Zero Waste Day celebration, considering factors such as the target audience, available resources, and public health guidelines (if applicable).

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output D.1:

a. Establish a demonstration communication activity “Citoyen / élève Modèle” initiative with communities and schools to reinforce and improve sorting at source, as well as reducing waste generation, and to strengthen citizen and students’ commitment to the selective sorting of waste at source (including WEEE, small batteries, used oil, etc.).

The most committed citizen or schools to sorting waste, and reducing waste generation, will be rewarded. The media will play an important role to communicate the experience and the Zero waste concept.

This activity will support the implementation of 4 selective sorting projects at source in 4 pilot zones in the governorates of Greater Tunis (one per governorate), targeting 50 household (houses) and 3 buildings, and one school in each pilot area.

b. Communicate and raise awareness targeting citizens and farmers on composting.

This activity will support the development and implementation of a communication campaign to raise awareness on organic waste management. The targeted public will be farmers and citizens. Within this campaign the main focus will be directed to minimize

food losses and waste and encourage suitable sorting and treatment (composting) of green and organic waste, and its benefits will be highlighted (e.g. Improvement in soil quality due to its nutrients, reducing the need of chemical products).

The following activities may be considered:

- Field demonstration activities for key stakeholders, which includes municipalities, farmers, citizens universities, etc.
- Engage the media, journalists, social media and content creators in the communication and awareness sharing activities.

#### **Output D.2. Technical Assessment of informal sector integration and formalization.**

Through this Output the project will support the development and formalization of informal recyclers/recycling companies. Efforts will be directed to deliver training and education, to promote access to the benefits of circular economy models, to build/increase technical capacity and improve environmental practices (including the introduction of best available technologies) in the collection, transport, recycling, and valorization of recyclables materials. The project will support the improvement of informal recyclers working conditions and encourage their integration into the value chain. Lastly, the strengthening of the links between recyclers and those who consume their recycled materials will be sought.

Within the implementation of this Output, the cities will ensure the following:

Assess gender differentiated roles, experiences, safety concerns, and access to resources for women and men in the informal economy, as well as concerns and barriers for informal workers joining formal economies. This should include consultation with women and men in informal workforce and associations and rights organizations concerns with informal workers and workers in waste management, e.g., [Women in Informal Employment: Globalizing and Organizing \(WIEGO\)](#) and [Women of Waste \(WOW\)](#)

Ensure that formalization activities equally benefit women and men in informal economies and mitigate harm to wellbeing and livelihoods by promoting gender-responsive approaches, including flexible working hours, allocation of resources and equipment, equal pay, anti-harassment policies, training and education opportunities, access to public services, etc.

Equally engage women and men in capacity building efforts and training, and adapt methods to account for different literacy levels, languages, etc.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output D.2:

- a. Design and implement a training programme to improve the working conditions of informal workers (sorters) within the waste management chain. The following topics will be considered: work organization as waste operators and the potential for adding value to recyclable materials, business administration, operational capabilities, risk prevention, BAT/BEP in recycle/repair and waste management. This activity will provide social and productive accompaniment with a focus on social vulnerability and gender and will strengthen linkage between informal workers and private sector. Among informal workers, groups working near watercourses in priority urban catchment areas will be prioritized.

Additionally, a monitoring system for the formalization process of waste recovery will be designed which will support the implementation of EPR in the metropolitan area (with emphasis on activities formalization and social inclusion of sorters).

#### **China - Tianjin:**

The following activities will be developed to reach Output D.2:

- a. Professional skills training for informal waste recyclers, such as scavengers, to guide the formalization of informal recyclers.

Provide technical guidance and evaluation to the informal waste recycling department, provide professional skills training, including occupational health and safety training, to non-formal waste recycling personnel such as scavengers, and obtain certification after passing the assessment to engage in waste recycling work.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output D.2:

- a. Ensure the formalization of unofficial activities within the waste management value chain and support their development.



This activity will provide education and training to the identified informal sector (recyclers). The training content may include: Best Environmental Practices for collection, transportation, sorting, recovery, recycling and valorization of materials in different waste streams, as well as occupational health and safety.

In addition, this activity will ensure the improvement of their working conditions, assist them in sustainable working models and practices, as well as strengthen the linkage with consumers of recyclables (companies) and their integration to the value chain.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output D.2:

a. Design and implement a capacity building programme to improve the working conditions of informal workers within the waste management chain.

For that purpose, this activity will support the enhance data collection on the size, scope, and characteristics of the informal sector within the waste management chain in Freetown. In addition, current and potential economic benefits of integrating informal activities into formal economy, such as increased productivity, tax, revenue and market access, will be evidenced.

This activity will support the assessment of the technical skills, knowledge and capacities of informal workers and businesses, including training needs and capacity-building opportunities. It will support the design and implementation of a capacity building programme for informal workers aimed at enhancing their capacities for adding value to recyclable materials, business administration, operational capabilities, occupational health and safety, risk prevention, BAT/BEP in recycle/repair and waste management, as well as support their formalization. In addition, linkage between informal workers and private sector will be strengthened.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output D.2:

a. Design and implement a capacity building programme to improve the working conditions of informal workers within the waste management chain.

This activity will support the enhance data collection on the size, scope, and characteristics of the informal sector within the waste management value chain in Greater Tunis. Based on this assessment and taking into consideration experiences at Tunisia and international level on the integration of the informal sector within the waste management value chain, a capacity building programme will be developed and implemented. This programme will consider enhancing informal workers capacities for adding value to recyclable materials, business administration, operational capabilities, occupational health and safety, risk prevention, BAT/BEP in recycle/repair and waste management, accessing to funding mechanisms, as well as support their formalization.

#### **Output D.3. Experiences exchanged at city networks for scale-up of good practices in other cities of the country and region.**

Encouraging experiences exchanged at city networks is a critical step in scaling up good practices to other cities within the country or the region. The following activities can help facilitate this process:

- Identify relevant stakeholders: identify the key stakeholders involved in the city network and convene them. This can include representatives from city governments, NGOs, businesses, and community organizations.
- Share best practices: This can be done through workshops, conferences, or online platforms. The aim is to highlight successful initiatives (as well as less successful ones and lessons from them), projects, best practices, and policies that have worked in the city and could be replicated in others.

Foster dialogue and collaboration: Encouraging dialogue and collaboration between cities can help create a shared understanding of common challenges and potential solutions. This can be done through peer-to-peer exchanges, joint projects, and partnerships.

Provide technical assistance: Providing technical assistance can help cities replicate successful practices more effectively. Technical assistance can take the form of training programs, mentorship, and access to experts.

Communicate and disseminate: Finally, it is important to communicate and disseminate the lessons learned from successful practices. This can be done through publications, online platforms, and conferences. Sharing knowledge and experiences can help inspire other cities to adopt similar practices, thereby scaling up good practices across the country or region.

The project will assist each of the cities in developing new or strengthening ongoing city networks towards the objective of the Zero Waste and Zero Pollution Vision within its municipalities.

#### **Uruguay – Metropolitan area (San José, Canelones, Montevideo):**

The following activities will be developed to reach Output D.3:

a. Integrate knowledge sharing and experience exchange within the SUIIR. Through this activity, the project will support the design and implementation of a knowledge exchange module within the Single Integrated Information System on Waste (SUIIR). Through this platform technical documents, events, indicators, communication materials, best practices, project results, among others aligned to the Zero Waste Strategy will be shared ensuring different groups of key stakeholders' access to this information.

This activity will ensure that module for gender-responsive activities in knowledge exchange will be included and support the development of documents, events, and communications materials.

#### **China - Tianjin:**

The following activities will be developed to reach Output D.3:

a. Information exchanges and organize meeting/workshop in advanced area in zero waste city management.

Organize a national experience exchange conference on the construction of zero-waste cities to share successful experiences and lessons learnt.

2-3 experience exchanges in the development of the 'zero waste city'.

b. Establish a city network mechanism on 'zero waste city'. This activity will support a suitable mechanism for city network that allows for exchange beyond the life of the project.

#### **Türkiye – Kocaeli:**

The following activities will be developed to reach Output D.3:

a. Promote the exchange of experiences, good practices and lessons learned within the project implementation at Kocaeli as well as relevant experiences resulting from the Global Project to other cities in the country or region, developing new city networks or strengthening existing city networks.

Currently, there is no official organization for cities exchange, but all municipalities have been meeting every month for many years. This activity will ensure the strengthening and suitable mechanisms for the institutionalization of this existing city network. This city network will contribute to disseminate key knowledge for implementing and scale up zero waste strategies within the country.

Identification and proper engagement of key stakeholders in the city network (such as representatives from city administrations, NGOs, businesses, and social organizations) will be ensured.

Among the activities to be developed through the network, the following may be considered: i) technical support through training programs, mentoring and access to experts to help cities replicate successful practices more effectively; ii) On-site experience of successful initiatives, projects, best practices and policies that worked in sample cities.

#### **Sierra Leone - Freetown:**

The following activities will be developed to reach Output D.3:

a. Promote the exchange of experiences, good practices and lessons learned within the project implementation at Freetown as well as relevant experiences resulting from the Global Project to other cities in the country or region, developing new city networks or strengthening existing city networks.

Currently, there is no official organization for cities exchange. This activity will ensure the creation of a suitable mechanisms for city network. This city network will contribute to disseminate key knowledge for implementing and scale up zero waste strategies within the country. Identification and proper engagement of key stakeholders in the city network (such as representatives from city administrations, NGOs, businesses, and social organizations) will be ensured.

Among the activities to be developed through the network, the following may be considered: i) technical support through training programs (specific training and outreach to women's organizations and women-led businesses will be considered), mentoring

(including gender targets and approaches) and access to experts to help cities replicate successful practices more effectively; ii) On-site experience of successful initiatives, projects, best practices, and policies that worked in sample cities.

#### **Tunisia – Greater Tunis:**

The following activities will be developed to reach Output D.3:

a. Establish an initiative to transfer good practices, lessons learned and experience exchange between the municipalities of Greater Tunis and a town/two towns in Twinning to be defined (Cologne for example).

This activity will include: i) Exchange good practices (regulations, projects, initiatives), results and the implementation process.; ii) Organize a study visit for a selected Tunisian delegation in order to see the different experiences and concrete projects on the ground. Within the study visit this activity will include women-led initiatives and highlight best practices and lessons learned from gender-responsive approaches. iii) Conceptualize and implement 4 initiatives in Greater Tunis based on field visits and good practices identified in the Twinning city/cities.

In addition, this activity will ensure the definition of suitable mechanisms to support these initiatives beyond the lifetime of the project.

### **GLOBAL COMPONENT – COORDINATION, COMMUNICATION, TECHNICAL ASSISTANCE AT GLOBAL LEVEL.**

#### **OUTCOME E: Clearing house on Zero Waste Operated.**

Through this Outcome, the SWAP initiative will aim to bring additional benefits that could not be achieved solely through national projects. It will favor South-South cooperation – first and foremost between the cities participating in SWAP but also beyond -, extract lessons relevant to other developing countries beyond the SWAP-participating cities and develop materials and tools which will become reference documents in identifying paths towards zero waste.

#### **Output E1: Technical and financial advice to the municipalities for the development and implementation of zero waste strategy provided.**

The cities within the SWAP Initiative will be continuously assisted through the global Zero Waste clearing house. The clearing house envisions to provide answers, advice and support to the diverse waste management and avoidance problems, as well as circularity challenges that the cities are currently facing towards their zero-waste goal. A digital platform, to be supported within Output E2, for learning, knowledge management and communication will be built and strengthened for the functions of the clearing house.

Through this Output, the project will support the following activities within the Clearinghouse:

Provide a one-stop-shop to address questions on municipal solid waste infrastructure and management, help identify and analyze challenges, data collection, target setting, review and advise on short-term and long-term solutions towards Zero Waste goal, referring to the experience and lessons learned in other cities in the SWAP or across the world. This activity will consist of providing answers to specific questions requested by the SWAP participating cities and review of existing documents and systems.

Provide advice on the governance, accountability, responsibility framework and enforcement.

Provide advice and insights to develop capacity building on sustainable waste management and zero waste planning, consultative processes, and communication at city level. Through this activity, it will be ensured that key elements are properly integrated for an effective design, development, and implementation of capacity building to be held in each of the participating cities.

Provide initial policy advisory and technical support services in terms of Best Available Technologies (BAT) and Best Environmental Practices (BEP) on the prevention, reuse, recycle, recover, treatment and disposal of waste. Through this activity it will be ensured that key elements are properly integrated for an effective design, development, and implementation of BAT/BEP to be held in each of the participating cities.

Provide initial advisory, technical and policy support into the development and implementation of Extended Producer Responsibility (EPR) models at city level. Through this activity it will be ensured that key elements are properly integrated for an effective design, development, and implementation of EPR models to be held in each of the participating cities.

Provide initial advisory and technical support into the engagement and capacity building of the Informal sector. Through this activity it will be guaranteed that key elements are properly integrated for an effective design, development, and implementation of engagement and capacity building to be held in each of the participating cities.

Provide initial advisory and technical support to cities to promote/set up collaboration and twinning arrangements between municipalities and help build national and regional waste management associations. Through this activity it will be guaranteed that key elements are properly integrated for an effective design, development, and implementation of twinning arrangements to be held in each of the participating cities.

Provide advice to cities in the development of the background check and state of the art and review the elaboration of the city level activities in the SWAP initiative. It will coordinate the development among the five participating cities to avoid duplicating efforts (facilitating information exchange). This background check and exchanges on state of the art solutions for implementation of project activities in cities are important to enhance the design and implementation at local level.

Provide insights into and support, as well as review, of education, awareness, capacity building (technical and institutional) and training activities in the participating cities. Through this activity it will be guaranteed that key elements are properly integrated for an effective design, development, and implementation of education, awareness, capacity building and training activities to be held in each of the participating cities.

Coordinate and organize at least 3 (three) study tours within the framework of the SWAP International Workshops during project implementation.

Design and implement at least 2 webinars per year. These webinars will aim to support communication, capacity building and training targeting key actors along the entire product lifecycle, from producers to consumers to waste management solution providers, the youth, local governments, among others. Topics may include waste management systems, organizational models, EPR schemes, among others, and will be decided by the project management team.

## **Output E2: Global Zero Waste City Finance Platform and Zero Waste Partnerships strengthened.**

The SWAP Initiative aims to coordinate and connect potential global investors to five pilot cities and identify investment opportunities and partnerships. In addition, it will help the development of financial mechanisms and products, based on the requests of cities. This stream of work will benefit from the expertise and network of the Sustainable Finance Hub of UNDP. The SWAP initiative will also help the capacity building in Sustainable Procurement Principles.

Through this Output, UNDP will also seek the collaboration with UNEP, UN Habitat, ISWA, SITRA (World Circular Economy Forum), Cities Alliance, ICLEI, Zero Waste International Alliance (NGO), as well as with relevant international treaties (BRS, Minamata convention, SAICM, Montreal Protocol) and relevant global platforms. UNDP will organize annual international workshops with lead institutions identified in the field of zero waste, in coordination with the SWAP initiative's annual project meetings.

The following activities will be developed:

Provide advisory and technical support into the development and implementation of Sustainable procurement principles, including gender criteria and targets for green procurement guidelines, aligning with ESG principles.

Provide advisory and technical support into the development of financial strategies in each of the participating cities, as well as the development of financing instruments (public and private) to support the implementation of Waste Management Plans as well as support the cities to mobilize resource towards the zero-waste goal.

Develop a knowledge management platform to support exchange of good practices and lessons learned. This platform focusing on zero waste will also compile available information on waste streams such as healthcare waste management.

Develop and implement a Global Communications, Knowledge Management and Branding strategy. Develop and distribute a newsletter on the progress of the Zero-Waste Initiative.

Based on the developed Gender Analysis and Action Plan (Annex 10), ensure mainstreaming gender within each of the activities to be supported by the Global Component. In addition, provide guidance to cities on the proper implementation of the gender action plans at local level.

Coordinate M&E requirements implementation in each of the participating cities. (MTR, TE, etc). Design and implement Monitoring Report for the five participating cities. Support the compiling of available guidelines and methodologies for the cities to properly conduct the measurement of POPs/UPOPs/Hg and GHG to be reported in the project.

Define the methodology for measuring greenhouse gas emissions due to international travel under the SWAP Project (including each of the participating cities), monitor them, and design and implement a plan to offset them.

Organize five (5) International Workshops to promote Zero Waste vision, knowledge, and experiences exchange. These International Workshops will be held once in each of the SWAP participating cities (Tianjin, Montevideo, Greater Tunis, Kocaeli, Freetown). These workshops will seek the participation of cities' Project staff, government authorities as well as global key partners and lead institutions in the field of zero waste. Regional counterparts from the region where the global meeting takes place each year will be invited, to learn from the meetings / site visits / exchanges and results of the SWAP Project. The invitees should be from cities in the region that UNDP is working with in other programmes or have expressed interest and/or needs to strengthen their zero waste approaches.

Lastly, as identified in Table X "Other on-going initiatives related to this Project" close coordination and exchange of information and sharing of best practices will be ensured with the GEF Integrated Programmes (IPs) "Eliminating Hazardous Chemicals from the Construction and Fashion Supply Chains" and "Circular Solutions to Plastic Pollution" through the global platform of SWAP initiative with the aim to shift existing investments and trigger the needed transformative changes in the concerned countries and pilot cities. Close coordination and exchange of information and sharing of best practices will be ensured with the IPs through the global platform of SWAP initiative with the aim to shift existing investments and trigger the needed transformative changes in the concerned countries and pilot cities.

*Remark: Justification for budget increase of the global component*

*It has appeared during the project preparation process that the scope and potential benefits if the global components could be further increased through a higher budget of the global components. Two areas of work in particular have received suggestions and focused which had not been fully assessed or included during the PIF preparation: sustainable procurement and sustainable finance.*

*As to the sustainable procurement, it is evident that the current approach through a supply chain transformation at the city level would be powerfully enhanced by a more robust and longer-term support to each of the municipalities' procurement offices, aiming towards further promoting the inclusion of circular economy, zero waste to reduce pollutant emissions. This requires technical and policy support and UNDP has engaged discussions with partners focusing on this type of approaches and transformations, particularly the international CSO ICLEI, which engages with local governments sustainability and has developed e-courses and other networks promoting sustainability of municipalities' purchases through new procurement practices.*

*The other main dimension that has been further developed prior to the CEO Endorsement has been the synergy of work under the financial component with engagement towards the broader approach of sustainable finance. This includes ensuring synergy with Integrated Local Financing Frameworks, which can help mainstream zero waste and pollutant reduction approaches within the transformation of the financial systems at city level towards SDGs. A further effort at reviewing the current status and situation of sustainable financing environment in each of the 5 cities will help determine key entry points and impactful financial instruments when securing the replication and maximized impact of the SWAP initiative interventions.*

## **Monitoring and Evaluation:**

### **Output F.1. M&E and adaptive management applied to assess activity performance and GEB impact.**

Project-level monitoring and evaluation will be undertaken in compliance with standard UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy; furthermore, additional and mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF M&E policy and GEF guidance materials.

Monitoring and Evaluation activities will at a minimum include: Inception Workshop (and Inception Report); Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP; Monitoring of indicators in project results framework; GEF Project Implementation Report (PIR); NEX Audit as per UNDP audit policies; Supervision missions; Oversight missions; GEF Secretariat learning missions/site visits; Independent Mid-term Review (MTR); GEF Tracking Tool; and Terminal Evaluation (TE). Monitoring and evaluation of implementation of the ESMF and the various site-specific ESMFs that will be developed for the demonstration activities will also be undertaken and reported in line with the M&E plan in the ESMF.

The Global Component will ensure the coordination of the different M&E requirements in each of the cities and compile a unique reporting to the GEF.

The following activities will be developed to reach Output F.1:

These activities will be implemented in the five participating cities:

The project results as outlined in the Project Results Framework, will be monitored periodically during implementation to ensure that the project effectively achieves its results. The results of the monitoring will be reported in an intermediate and final evaluation and the lessons learned captured will be integrated in the project through adaptive feedback management. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](#) and [UNDP Evaluation Policy](#).

As a standard practice for every UNDP project, continuous monitoring of FSP results and achievements will be ensured, while the application of adaptive management of the project after conclusion of the Mid-Term Review (MTR) will be warranted. The Project Management Unit (see Section VII on Governance and Management arrangements for detailed information) will design the project's M&E system and be responsible for implementing the project's M&E Plan (see Section VI below), including the Project's Inception Workshop, annual planning workshops and Project Implementation Reports (PIRs).

The following activities will be implemented to achieve Output F.1:

a) Development of Project's Inception Workshop.

b) Monitoring:

i) Project Results Framework (outcome indicators, GEF Core Indicators, baseline and annual target indicators). Environmental, social and economic benefits will be also considered.

ii) Project Risk Matrix, Environmental and Social Framework/Social Environmental Screening Procedures (ESMF/SESP), SESA, the Gender Analysis and Action Plan, and the Stakeholder Engagement Plan.

c) Holding Project Steering Meetings.

d) Carrying out "Mid-Term Review" (MTR): The MTR will be carried out after the second submission of the PIR; it will assess the progress of each project activity and attainment of the project's indicators presented in the Project Results Framework and Multiyear Work Plan (Annex 4). This review will also consider one Gender Assessment of project impact completed as part of MTR and the disbursement of financial resources and co-financing provided by project partners, and it will monitor and assess administrative aspects for the execution of the project. The MTR will also inform the adaptive management of the project and improve its implementation as a remainder of the project's duration.

e) Carrying out Terminal Evaluation (TE): The TE aims to evaluate whether all planned project activities have been developed, resources granted by the GEF have been disbursed and spent in line with GEF and UNDP policies and rules, following activities as set out in this Project Document. The TE will also extract and identify lessons learned, how to disseminate them most efficiently and make recommendations to ensure that project results are sustainable.

## Partnerships

This FSP needs to engage a variety of stakeholders not only from the public sector but also from the private sector in order to achieve the planned outputs and outcomes. The following table summarizes the actors that the project will need to involve and describes their responsibilities in project's implementation as well as their contributions to addressing the development challenge. Further details on the different Stakeholders can be found in Annex 8 "Stakeholders Engagement Plan".

Group	Stakeholder	Country	Role
International Organizations	United Nations Development Programme (UNDP)	Global	UNDP works in 170 countries and territories to eradicate poverty and reduce inequality, aiming to build the world envisioned by the 2030 Agenda. UNDP's country teams have in-depth understanding of the local system, economic development model and culture, which are essential in facilitating, designing, advocating, and implementing zero-waste initiatives.



			<p>UNDP launched a <a href="#">Zero Waste Offer</a> in 2021 to promote the Zero Waste vision in developing countries, enhance sustainable waste management governance in cities, and promote best practices.</p> <p>UNDP is accountable to the GEF for the implementation of this project. This includes oversight of project execution to ensure that the project is carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services.</p> <p>UNDP Chemicals and Waste Hub is the Implementing Partner of the SWAP Initiative and through its China CO, Uruguay CO, Türkiye CO, Sierra Leone CO and Tunisia CO will support the implementation at city level.</p> <p>In addition, it will benefit of the expertise of UNDP Climate Hub and UNDP Sustainable Finance Hub to realize a sustainable finance architecture and to help mobilize game-changing public and private sector resources towards zero waste vision.</p>
	Avfall Sverige	Global	<p>Avfall Sverige, the Swedish Waste Management Agency, is a stakeholder and trade association in the field of waste management and recycling. Avfall Sverige's members (400 members from both the public and the private waste management sectors) make sure that waste is collected and recycled in all municipalities nationally. In accordance with the 'Zero Waste' vision, the Swedish municipalities and public companies are the facilitators for the transition towards waste prevention, reuse, a circular economy and a more sustainable society. Avfall Sverige has several experience and knowledge of waste management throughout the whole value change. These comprises dealing with policymaking and knowledge transfer through working groups and network; planning and implementing waste recovery systems; implementing economical steering instruments and inter municipal cooperation and contracting features.</p> <p>UNDP initiated the implementation of the Zero Waste offer, in partnership with the Swedish municipal waste association, <a href="#">Av fall Sverige</a>, through a MoU signed in 2022. As one of the first activities, an <a href="#">on-line course</a> for senior elected officials of municipalities was developed. Av fall Sverige is one of the Responsible Parties of the SWAP Initiative and will also be part of the Project Technical Advisory Committee.</p>
	UN-Habitat	Global	<p>UN-Habitat is mandated by the UN General Assembly to promote socially and environmentally sustainable towns and cities. UN-Habitat is the focal point for all urbanization and human settlement matters within the UN system.</p> <p>UN-Habitat works with partners to build inclusive, safe, resilient, and sustainable cities and communities. UN-Habitat promotes urbanization as a positive transformative force for people and communities, reducing inequality, discrimination and poverty.</p> <p>UN Habitat has a MoU with UNDP and as part of this cooperation, initiatives such as the UNDP/UN-Habitat's 'Integrated Urban Resilience in SIDS and Coastal Cities' with focus on advancing collaborative action for building urban resilience with contextualized data have been developed, where waste management have been an area of synergy.</p> <p>UN-Habitat will be part of the Project Technical Advisory Committee of the SWAP Initiative.</p>

	United Nations Environmental Programme (UNEP)	Global	<p>UNEP is the leading global authority on the environment. Its work is focused on helping countries transition to low-carbon and resource-efficient economies, strengthening environmental governance and law, safeguarding ecosystems, and providing evidence-based data to inform policy decisions.</p> <p>UNEP will be part of the Project Technical Advisory Committee of the SWAP Initiative.</p>
	International Solid Waste Association (ISWA)	Global	<p>The International Solid Waste Association is an international network of waste professionals and experts from around the world whose mission is “To Promote and Develop Sustainable and Professional Waste Management Worldwide and the transition to a circular economy.”</p> <p>ISWA will be part of the Project Technical Advisory Committee of the SWAP Initiative.</p>
	SITRA	Global	<p>SITRA is an accountable and independent future-oriented fund that is influential nationally and internationally and acts as a think tank, promoter of experiments and operating models and a catalyst for co-operation. It promotes and organizes the World Circular Economy Forum (WCEF), which is a landmark event of the year that brings together business leaders, policymakers and experts to present the world’s best circular economy solutions.</p> <p>SITRA will be part of the Project Technical Advisory Committee of the SWAP Initiative.</p>
	ICLEI Europe	Global	<p>ICLEI – Local Governments for Sustainability is a global network working with more than 2500 local and regional governments committed to sustainable urban development. In particular through Procura+ Network, INCLEI foster the connection, exchange and action on sustainable and innovation procurement among European public authorities.</p> <p>ICLEI will be part of the Project Technical Advisory Committee.</p>
	Cities Alliance	Global	<p>Cities Alliance is a global partnership fighting urban poverty and supporting cities to deliver sustainable development. To manage its activities, the Cities Alliance operates a multi-donor fund with UNOPS as host and Trustee. The Cities Alliance seeks to improve the lives of 60 million urban poor across 200 cities in 20 countries by 2030. To be a leading agent for urban change by supporting and implementing comprehensive programmes in countries and cities where it matters most.</p> <p>Cities Alliance will be part of the Project Technical Advisory Committee of the SWAP Initiative.</p>
	Zero Waste International Alliance	Global	<p>The Zero Waste International Alliance was formed in 2003 to promote positive alternatives to landfill and incineration and to raise community awareness of the social and economic benefits to be gained when wasted materials are regarded as resources which can create both employment and business opportunities. The Zero Waste International Alliance: i) initiates and facilitates research and information sharing for the promotion of Zero Waste; ii) builds capacity to effectively implement Zero Waste and iii) sets standards for evaluating the achievement of Zero Waste.</p> <p>Zero Waste International Alliance will be part of the Project Technical Advisory Committee of the SWAP Initiative.</p>
National Government	Ministry of Environment (MA) of Uruguay	Uruguay	<p>The Ministry of Environment is responsible for the implementation of the national environmental policy, environmental management, sustainable development and conservation and use of natural resources set by the Executive Power.</p>

			The Ministry, through its National Directorate of Environmental Quality and Assessment (DINACEA), is responsible for the implementation of this project, including the monitoring and evaluation of project interventions, the achievement of project outputs and outcomes, and the effective use of GEF and UNDP resources.
	Other Ministries	Uruguay	<p>For the implementation of the SWAP Initiative at Uruguay, the following Ministries will be engaged:</p> <p>Ministry of Labour and Social Security (MTSS); Ministry of Social Development (MIDES); National Women's Institute (InMujeres - MIDES); Ministry of Industry, Energy and Mining (MIEM); Ministry of Economy and Finance (MEF) / Directorate General of Taxation (DGI); Ministry of Livestock, Agriculture and Fisheries (MGAP); Office of Planning and Budget (OPP); Uruguayan Agency for International Cooperation (AUCI); State Procurement Regulatory Agency (ARCE); National Institute for Employment and Vocational Training (INEFOP); National Development Agency (ANDE); Technological Laboratory of Uruguay (LATU); National Institute of Cooperativism (INACOOP) - Incubator of Cooperatives (INCUBACOO)</p>
	Foreign Environmental Cooperation Center (FECO)/ Ministry of Ecology and Environment (MEE)	China	<p>FECO is a public institution directly under the MEE and is focal point for Stockholm, Minamata and Basel Conventions and leads their implementation.</p> <p>FECO is the implementing partner of the SWAP project and is responsible for the design of the project in PPG stage, the implementation and monitoring of the project, and will be responsible for the implementation of policies making, capacity building and demonstration coordination at national level in full-size stage.</p>
	Other Ministries	China	For the implementation of the SWAP Initiative at China the Ministry of Finance (MOF) will be engaged. MOF is the focal point of GEF to monitor the project implementation at national level.
	Ministry of Environment, Urbanization and Climate Change (MoEUCC)	Türkiye	<p>MoEUCC Is the national authority for environmental policies and regulations. MoEUCC is focal point for Stockholm, Minamata, Basel and Rotterdam Conventions and leads their implementation. MoEUCC Is responsible for the control of the proper sound management and disposal of industrial and municipal waste.</p> <p>The MoEUCC is the implementing partner for the SWAP Initiative in Kocaeli.</p>
	Other Ministries	Türkiye	<p>For the implementation of the SWAP Initiative at Türkiye, the following Ministries will be engaged:</p> <p>Ministry of Agriculture and Forestry; Ministry of Environment, Urbanization and Climate Change (MoEUCC) - Kocaeli provincial directorate of environment, urbanization and climate change</p>
	Environmental Protection Agency (EPA)	Sierra Leone	<p>This is the operational authority for all environmental policies and regulations. The EPA-SL hosts the operational GEF Focal Point for the country and supervises all GEF and GEF-related projects. It is in charge of the control of the proper environmental sound management and proper disposal of chemicals, Pollution through mercury, and waste stream control.</p> <p>The EPA-S is a member of the National Committee for Chemicals and Waste, which reviews the files to approve the registration of pesticides for agricultural use (PQUA) in the eco-toxicological field (physical and chemical properties, uses, safety measures, environmental prevention, etc.)</p>

			<p>The Environmental Protection Agency-Sierra Leone is an implementing partner of the project, through its Undersecretary of Environmental Quality, it is part of the design, coordination, and implementation of the project and as such is part of the Steering Committee of the project.</p>
	Other Ministries	Sierra Leone	<p>For the implementation of the SWAP Initiative at Sierra Leone, the following Ministries will be engaged: Ministry of Environment and Climate Change, Ministry of Health; Ministry of Trade and Industries</p>
	Ministry of environment (ME)	Tunisia	<p>The ministry of Environment is the national authority that is responsible for developing environmental policies and regulations.</p> <p>The ministry is responsible for developing policies and strategies related to solid waste management and circular economy, promote, training, awareness and education actions in the fields of the environment, sustainable development and in fighting against pollution. The ministry is also responsible of the coordination of the development and implementation of national programs.</p> <p>The ME is the implementing partner of the project, through its Directorate General of the Environment and Quality of Life and (DGQVE), and is responsible for the coordination, the preparation of the events and activities and the review and validation of the reports, in concertation with UNDP and other agencies and partners. The ministry is responsible of the coordination of the Steering Committee of the project.</p> <p>The ministry of environment will participate in all the activities SWAP designed for Tunisia.</p>
	Other Ministries	Tunisia	<p>For the implementation of the SWAP Initiative at Tunisia, the following Ministries will be engaged: National waste management agency (ANGed); The national agency of environmental protection (ANPE); International centre of environmental technologies of Tunis; <i>Ministry of interior</i>; Ministry of finance; Ministry of industry, energy and mines.; Ministry of tourism; Ministry of Agriculture, Water Resources and Fisheries; Ministry of social affairs; Ministry of professional training and employment.</p>
Local Government	Municipality of Canelones,  Municipality of Montevideo,  Municipality of San José	Uruguay	<p>The Municipality of Canelones, the Municipality of Montevideo and the Municipality of San José in close coordination with the Ministry of Environment, will promote the fulfilment of the commitments established in the Project and as such is part of the Project Board as beneficiaries' representatives.</p>
	Other relevant local government authorities.	Uruguay	<p>For the implementation of the SWAP Initiative at Uruguay, the following local government authorities will be engaged:</p> <p>Plenary of Municipalities and Congress of Mayors (CI). They will contribute to and support the development of activities related to the involvement of the third level of government, promoting decentralisation and a territorial approach.</p>
	Tianjin Municipal Bureau of Ecology and Environment (EEB)	China	<p>Tianjin EEB is responsible for the management and disposal of general waste, hazardous waste and medical waste in Tianjin. EEB also supervises new chemicals and is responsible for implementation of international conventions at Tianjin level.</p> <p>Tianjin EEB will support FECO to design the SWAP project. EEB, together with the other bureaux (referring to the Project Steering Committee), is also responsible for:</p>

			<p>development of policy, regulations, standards, plans on waste management; zero waste framework and action plan under Component 1, Output A.1- A.3;</p> <p>promotion of sustainable investment and green financing instruments under Component 2, Output B.1, B.2 and B.3;</p> <p>enhancement of sustainable production and consumption under Component 3, Output C.1, C.2 and C.3; and</p> <p>Dissemination of information and organization of knowledge sharing, awareness education and advocacy program under Component 4, Output D.1, D.2 and D.3</p> <p>The EEB is part of the Project Board as Beneficiary Representative.</p>
	Other relevant local government authorities.	China	<p>For the implementation of the SWAP Initiative at China, the following local government authorities will be engaged:</p> <p>Tianjin Municipal Commission of Urban Management (CUM); Tianjin Industrial and Information Technology Bureau (IITB); Tianjin Agriculture and Rural Commission (ARC); Tianjin Municipal Health Commission</p>
	Kocaeli Metropolitan Municipality (KMM)	Türkiye	<p>KMM is the local authority for implementation of the national environmental policies and regulations.</p> <p>KMM is responsible for the environmentally compatible management of municipal waste collected by the district municipalities and preparing and implementing the solid waste management plan of Kocaeli province. It is also a member of the team that prepared the Kocaeli zero waste management system plan.</p> <p>It is one of the most important stakeholders of the project locally due to its duties and responsibilities.</p> <p>The KMM is part of the project board as Beneficiary Representative.</p>
	Other relevant local government authorities.	Türkiye	<p>For the implementation of the SWAP Initiative at Türkiye, the following local government authorities will be engaged:</p> <p>Kocaeli district municipalities. The district municipalities (12) are responsible for the separate collection of municipal waste at the source within their municipal borders, the collection of mixed municipal waste and transportation to the disposal and/or transfer station. They are members of the team that prepared the Kocaeli zero waste management system plan.</p>
	Freetown City Council	Sierra Leone	<p>It's the City's authority on all environmental-related policies and it sets out local regulations that address challenges faced by the city and its residents.</p> <p>The Freetown City Council with other relevant stakeholders has developed and implemented policies that promote environmental sustainability and align with GEF objectives. This involves drafting regulations related to environmental protection, land use planning, or pollution control</p> <p>It is in charge of the control of the proper sound management and disposal of agrochemicals, mercury, and waste within the municipality.</p> <p>The Freetown City Council is a member of the National Committee for Chemicals and Waste, which reviews the files to approve the</p>

			<p>registration of pesticides for agricultural use (PQUA) in the ecotoxicological field (physical and chemical properties, uses, safety measures, environmental prevention, etc.).</p> <p>The Freetown City Council is an implementing partner of the project, through its environmental department, it is part of the design, coordination, and implementation of the project and as such is part of the Project Board as Beneficiary Representative.</p>
	Governorates of Greater Tunis: Tunis, Mannouba, Ben Arous and Ariana	Tunisia	<p>The governorates of Tunis, Mannouba, Ben Arous and Ariana represent the local authorities that are responsible for the administrative management of the cities.</p> <p>The governorates are responsible in particular for the management of the project locally, in coordination with the national authorities and the UNDP.</p> <p>Municipalities represents the local authorities. Today, they are responsible of the collection and the transfer of the waste to the transfer stations. They are also responsible for cleaning operations. Actually, decision making in municipalities is led by the general secretary.</p> <p>The governorates of Greater Tunis will participate in all activities of the project and are part of the Project Board as Beneficiaries Representative.</p>
Private Sector	Industrial Associations/ Business Chambers	Uruguay	For the implementation of the SWAP Initiative at Uruguay, the following stakeholders within the private sector will be engaged: Chamber of Industries (CIU); Association of Plastic Industries of Uruguay (AUIP); National Chamber of Commerce and Services (CNCS); Uruguayan Chamber of Office and Computer Machinery Importers (CUIMOI); Chamber of Waste Management Companies of Uruguay (Cegru); Plan Vale (Packaging Management Plan); Plastics Technology Centre (Ctplas).
	Industrial Associations/ Private companies	China	For the implementation of the SWAP Initiative at China, the following stakeholders within the private sector will be engaged: China Automotive Technology and Research Center Co. Ltd. (CATA); Tianjin Recyclable Resources Industry Association (RRIA); Pilot Companies.
	Industrial Associations	Türkiye	For the implementation of the SWAP Initiative at Türkiye, the following stakeholder within the private sector will be engaged: Kocaeli Chamber of Industry (KSI).
	Private Companies	Sierra Leone	For the implementation of the SWAP Initiative at Sierra Leone, the following stakeholders within the private sector will be engaged: Milla Group of Companies; Klin Tin-Sierra Leone.
	Industrial Associations/ Private Companies	Tunisia	For the implementation of the SWAP Initiative at Tunisia, the following stakeholder within the private sector will be engaged: Tunisian Union of Industry, Commerce and Crafts (UTICA); Confederation of Citizen Enterprises of Tunisia (CONET); AFREC; Valoria; ECOTI ; COLLECTUN; Group of companies from UTICA or CONECT for waste management; Ciment industry Djbal West; SFBT; Tetrapak
Finance	Financial Institutions	Uruguay	<p>The Uruguayan financial system is currently made up of: 2 public banks, 9 private banks, 4 non-banking companies. There are also other entities that provide financial services, such as credit management companies, financial services companies and bureaux de change (Source: 'Uruguay XXI' report).</p> <p>These institutions may contribute to and support the development of activities related to the design of financial instruments. As well as the implementation of demonstration projects related to the above.</p>



	Financial Entities	China	People's Bank of China (Tianjin Subsidiary), Tianjin Banking and Insurance Regulatory Commission (members of the Project Steering Committee).  These institutions will be mainly involved for the implementation of activities within Component 2.
Academia	Universities	Uruguay	University of the Republic of Uruguay and other universities.
	Universities	Tunisia	University of Tunis; University of Sfax; Biotechnology centre of Sfax; National Institute of Science and marine technologies INSTM.
Other relevant groups	Informal workers	China, Uruguay, Türkiye, Sierra Leone, Tunisia	This sector is of great relevance within the scope of the project. Consequently, the activities to be implemented will have a positive impact on their standard of living, their health, and the environment.  Informal workers will be a key stakeholder throughout the lifecycle of the project. They will participate in raising awareness, knowledge dissemination, capacity building and training, and communications activities within the scope of the project.

**Knowledge:** Knowledge it is currently mainstreamed within each of the five cities project activities as well as within the Global Component.

In particular knowledge and lessons learned at city level will be available and shared through activities to be implemented within Component 4.

The Global Component will support Knowledge by developing and implementing a Knowledge Management and Communication Strategy. It will coordinate in addition, knowledge and Lessons Learned in each of the cities and will ensure its dissemination thorough the Knowledge Management Platform to be developed within SWAP Project.

**Innovativeness, Sustainability and Potential for Scaling Up:**

**Innovation:**

The innovation of this Global Initiative relies on its integrated approach in view of the need to support emerging economy and Least Developed Countries in adopting effective and sustainable waste management models with a gender-responsive and inclusive approach, while promoting the shift from unsustainable linear patterns to a clean and circular economy, introducing upstream solutions, circularity of materials and sustainable policies (such as green procurement). The Initiative envisions zero-waste societies where: Economic growth is decoupled from waste generation; Materials are circulated at their optimum quality, so their value is preserved as long as possible; Producers use recycled resources as the main inputs in making new products; the disposal of residual waste is regarded as a last resort and the highest percentage of the wastes generated are reused, recycled, sanitarly landfilled, or converted to biogas, bio fertilizer and energy, applying the BAT/BEP that prevent the release of pollutants; Societies' development is sustainable without a build-up of toxic and hazardous chemicals in their territories; and waste management becomes a core indicator for a city to demonstrate its commitment to social and environment responsibility.

For that purpose, the project will base its interventions on previous successful experiences as well as developing and introducing new approaches that have not yet been tested in the region, but which are thought to be technically and financially feasible and sustainable. The project will adress different processes to promote the reduction of wastes volumes (which also implies the reduction of hazardous substances) and improve the management of different waste streams such as: domestic waste (organic, paper, cardboard, glass, metal and plastics), e-waste, construction waste, healthcare waste, industrial waste, agricultural waste, etc., depending on local needs and circumstances.

Lastly, never before a comprehensive and holistic multi country/city project has been implemented to promote integrated chemicals and waste management by supporting cities in emerging economy and Least Developed Countries towards zero-waste vision in line with waste hierarchy principle with a focus on city waste. This approach is further enhanced with the assistance of a Global

Component which will support cities by providing technical and policy advice, as well as enhancing partnerships with key national and international stakeholders.

#### Sustainability:

The project will address and support several aspects that contribute to sustaining results beyond the project's duration. The following can be highlighted:

Developing a long-term strategy for zero waste city based on local needs and circumstances as well as a Comprehensive Waste Management Plan where investment and suitable financing instruments and incentives are included.

The creation of an enabling environment through improved national policies and regulatory frameworks for comprehensive waste management and circular economy approach.

Piloting activities which evidence business models and sound practices that ensures benefits in different dimensions: social, environmental, and economic.

Capacity built in key stakeholders. Through its different interventions the project will engage key stakeholders and deliver training and education to build technical capacity for the reduction of waste volumes. In particular the following activities can be highlighted: trainings and education programmes; technical assistance (underlining mainly those foreseen within the demonstration activities and pilot projects); networking and collaboration (such as City Twinning and Clearing House); data collection and analysis (Waste Management Plan and Zero Waste Strategy); policy and regulatory support; funding measures and financing mechanisms assessment; engaging in advocacy efforts and public awareness campaigns to promote the importance of sustainable consumption and waste management practices, building support for waste reduction and recycling initiatives.

Awareness raising of all those involved and/or impacted by waste management practices, and sustainable production and consumption which will ensure that the behavioral change is sustained.

#### Scale-up:

The potential for scaling up the results is based on the following:

Multiple and varied interventions will be implemented for different waste streams and different local contexts, which will facilitate the scale-up and replication of results. Scaling up of results to national level will be enhanced through building business models in the pilot cities that could be replicated in other cities. The project will document the interventions applied by the demonstration projects, which will allow other stakeholders to replicate such practices and select the practices and technologies most fitting their needs and circumstances.

National policies, regulations and plans which will be developed as part of the project Component 1 will also support the scale-up/replication of project interventions among entities/partners which did not participate in the project, through enactment and monitoring of these regulatory measures by national enforcement entities.

The development of financial strategies and suitable financing instruments under Component 2 will also be strategically contributing to replication and scale-up since it will make finance available for encouraging key stakeholders in new investments for improving the sound management of waste streams, as well as developing circular business models and adopting green principles among processes and products after project completion. In particular, this component foresees the development of a Strategy (Output B.5) to ensure the replication and scaling up of results obtained by the project through its different interventions. This strategy will analyze feasible alternatives to achieve national scaling up.

SWAP will facilitate the city to city leaning and knowledge exchange at the national level to provide guidance, and work with finance institution to scale up the best practice.

Türkiye already has a nationwide zero waste city network which will facilitate the learning between cities through the SWAP project; Uruguay is involving the three major cities of its country, Tunisia and Sierra Leone are participating through their capital cities, which represents significant share of economic activities of the country and is of great relevance for the scaling up at the national level.

The establishment of a Zero Waste Platform will contribute for the results' scale-up since it will favor South-South cooperation, exchanges of experiences, knowledge and technologies between urban stakeholders that face comparable challenges within similar socio-economic environments.

Holding annual International Workshops, once in each of the SWAP participating cities with the participation of government authorities, global key partners and lead institutions in the field of zero waste, as well as regional counterparts from the region where the global meeting takes place, will contribute to the scale-up through learning from the meetings / site visits / knowledge exchanges and sharing of SWAP Project results.

Finally, it will have a global influence, by providing useful insights into practical and effective solutions to inspire, replicate and scale-up in different urban contexts, leverage transformative change in existing structures, contributing as well to attain the 2030 Agenda for Sustainable Development.

#### Socio-economic benefits

In addition to the Global Environmental Benefits (GEBs) the project is expected to deliver on the following socio-economic benefits:

Promote better human health, through the reduction of exposure to hazardous chemicals and improved waste management practices towards zero waste cities.

Enhance participation, equality, and inclusion (including for women, youths, and Indigenous Peoples and local communities) by ensuring proper engagement and equal access to identified vulnerable groups.

Improve education, skills, capacity and technology for sustainable development, through several interventions targeting different stakeholders' groups that enhance the adoption of waste management hierarchy principles (focusing on waste reduction), as well as the adoption of sustainable production and consumption patterns

Create job opportunities enhanced through the deployment of business models to increase the reuse and recycle of materials.

These co-benefits will be monitored and reported on during project implementation (at MTR and TE).

#### Institutional Arrangement and Coordination with Ongoing Initiatives and Project.

Please describe the Institutional Arrangements for the execution of this project, including financial management and procurement. If possible, please summarize the flow of funds (diagram), accountabilities for project management and financial reporting (organogram), including audit, and staffing plans. (max. 500 words, approximately 1 page)

UNDP is the implementing agency of the SWAP Initiative and will oversee the development of all components and activities at the national and global levels. The Global Component activities will be implemented by UNDP as Direct Implementation Modality (DIM) and with Avfall Sverige as Responsible Party.

Projects at national level will be implemented as follows:

China: National Implementation (NIM) - Foreign Environmental Cooperation Center – FECO.

Uruguay: Country Office Support to National Implementation Modality - Ministry of Environment.

Sierra Leone: Country Office Support to National Implementation Modality - Environmental Protection Agency (EPA).

Tunisia: Country Office Support to National Implementation Modality - Ministry of Environment.

Türkiye: Country Office Support to National Implementation Modality - Ministry of Environment Urbanization and Climate Change (MoUECC).

Below, the detail of the Governance and Management Arrangements is provided:

#### **Section 1: General roles and responsibilities in the projects' governance mechanism**

Implementing Partner: The Implementing Partner for each of the participating cities as well as the Global Component is as follows:

Global Component: UNDP Chemicals and Waste Hub.

Tianjin - China: Foreign Environmental Cooperation Center, Ministry of Ecology and Environment (FECO).

Great Montevideo - Uruguay: Ministry of Environment of Uruguay.

Kocaeli - Türkiye: Ministry of Environment Urbanization and Climate Change. (MoECC)

Greater Tunis - Tunisia: Ministry of Environment of Tunisia.

Freetown - Sierra Leone: Environmental Protection Agency (EPA).

The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

The Implementing Partner is responsible for executing this project. Specific tasks include:

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
  - Procurement of goods and services, including human resources.
  - Financial management, including overseeing financial expenditures against project budgets.
  - Approving and signing the multiyear workplan.
  - Approving and signing the combined delivery report at the end of the year; and,
  - Signing the financial report or the funding authorization and certificate of expenditures.

For the Global Component, UNDP Chemicals and Waste Hub as Implementing Partner, will be supported through a Technical Advisory Project Committee which will be formed by: UN-Habitat, United Nations Environment Programme (UNEP), Avfall Sverige, International Solid Waste Association (ISWA) - SITRA – Cities Alliance – ICLEI – Zero Waste International Alliance (NGO).

Responsible Parties: The Responsible Parties identified for each of the participating cities as well as the Global Component are as follows:

Global Component: Avfall Sverige.

Tianjin - China: No Responsible Parties are identified.

Great Montevideo - Uruguay: No Responsible Parties are identified.

Kocaeli - Türkiye: No Responsible Parties are identified at this stage. Engagement with responsible parties could be considered based on collaborative advantage during the implementation phase of the project activities.

Greater Tunis - Tunisia: No Responsible Parties are identified.

Freetown - Sierra Leone: Freetown City Council (FCC); Ministry of Environment and Climate Change (MECC); Women's Network for Environmental Sustainability

Project stakeholders and target groups: The stakeholders of the project correspond to a diversity of entities at Global,

National and City's level, as detailed in Table 1 "Partnerships of the FSP". Among the different stakeholder groups the following can be mentioned:

Governments (national and local level), industrial associations from different targeted sectors (Plastics, construction, automotive, electronics, food, etc.), universities, research centers, NGOs, minority groups (e.g: informal workers, women associations), etc. These stakeholders can engage having similar approach and goals aligned to the project objective "reduce chemical pollution in the value chain and improve resource efficiency in line with green chemistry, circular economy, and waste hierarchy principles for sustainable production and consumption, towards a zero-waste vision".

**UNDP:** UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project.

**The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project.** UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.

In particular for the Global Component:

A strict firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP and project execution undertaken by UNDP. The segregation of functions and firewall provisions within UNDP in this case is described in the next section.

In particular for Uruguay, Tunisia, Türkiye and Sierra Leone Projects:

A firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP and charged to the GEF Fee and any support to project execution performed by UNDP (as requested by and agreed to by both the Implementing Partner and GEF) and may be charged to the GEF project management costs (only if approved by GEF). The segregation of functions and firewall provisions for UNDP in this case is described in the next section.

Will the GEF Agency play an execution role on this project?

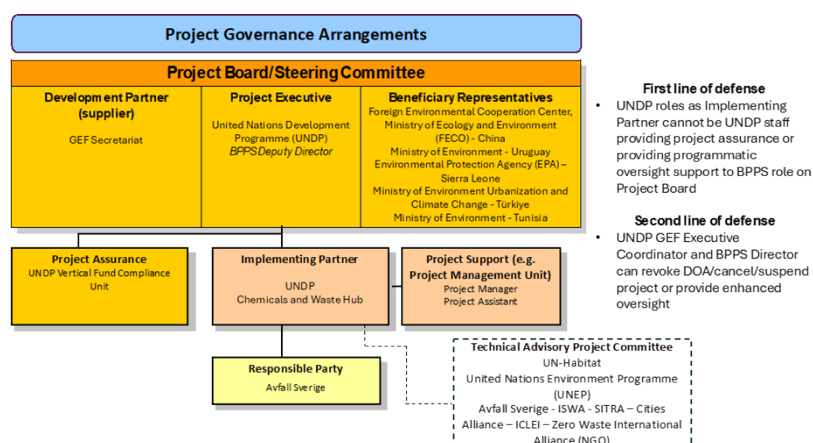
Yes

If so, please describe that role here and the justification.

## Section 2: Project governance structure

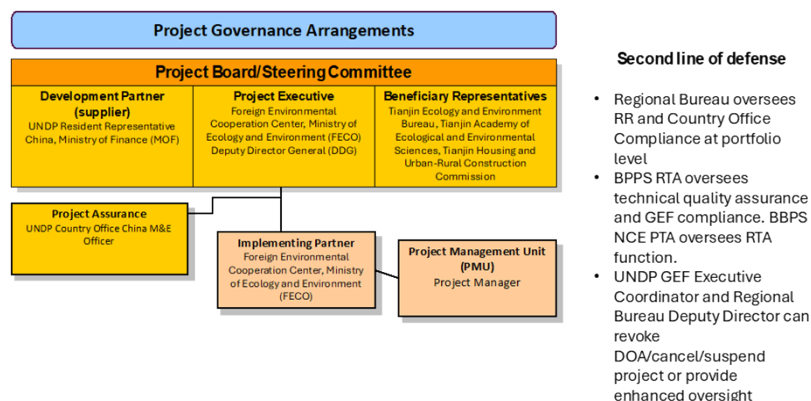
The following section describes in detail the Project governance structure for the Global Component as well as for each of the participating cities:

### Global Component:



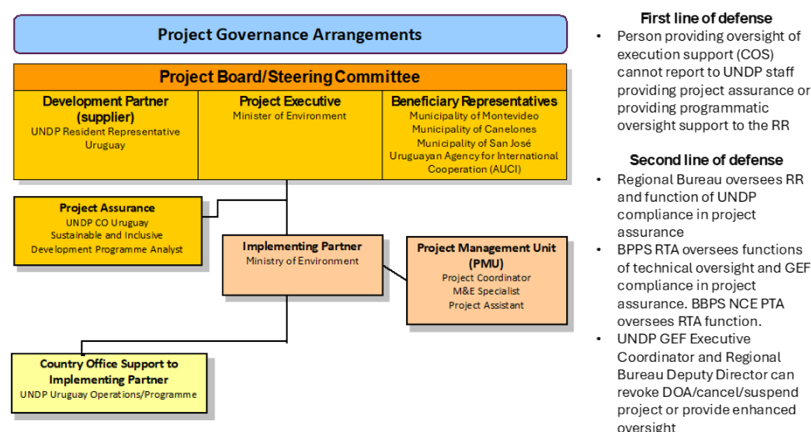
UNDP BPPS assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A UNDP BPPS NCE representative will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

### Tianjin - China:



The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

### Great Montevideo – Uruguay:



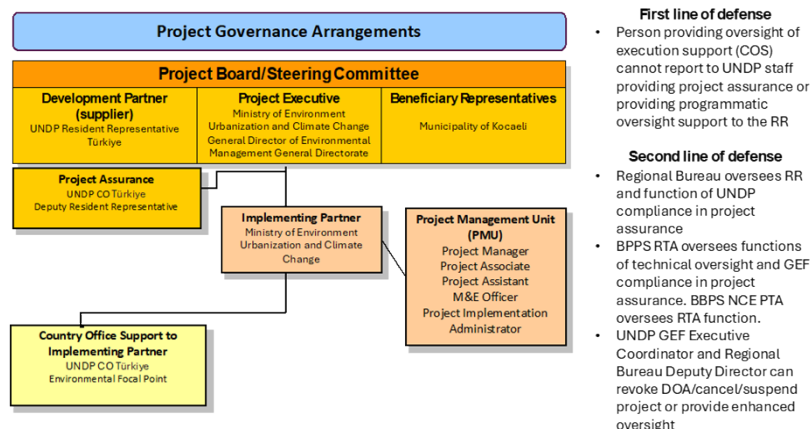
The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

**UNDP project support:** The Implementing Partner and GEF OFP have requested UNDP to provide support services for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support. The execution support services – whether financed from the project budget or other sources - have been set out in detail and agreed between UNDP Country Office and the Implementing Partner in a Letter of Agreement (LOA). This LOA is attached to this Project Document.



To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services.

### Kocaeli – Türkiye:

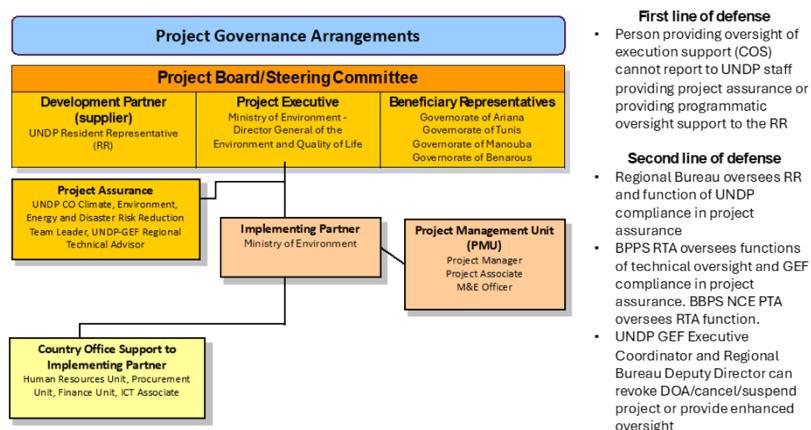


The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

**UNDP project support:** The Implementing Partner and GEF OFP have requested UNDP to provide support services for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support. The execution support services – whether financed from the project budget or other sources - have been set out in detail and agreed between UNDP Country Office and the Implementing Partner in a Letter of Agreement (LOA). This LOA is attached to this Project Document.

To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services.

### Greater Tunis – Tunisia:

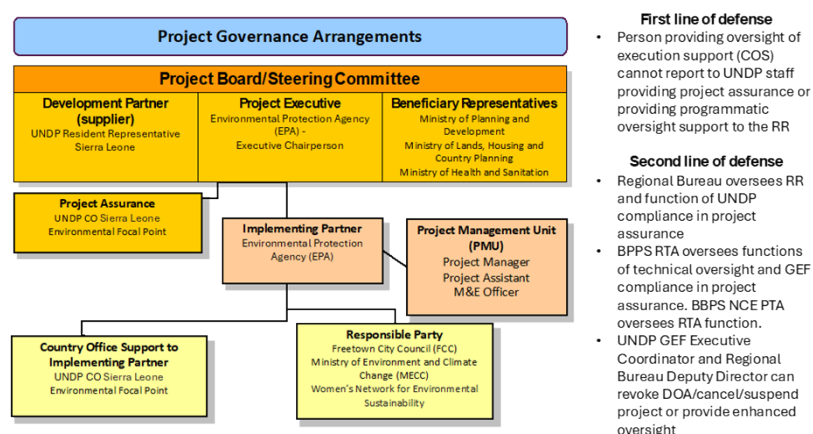


The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

**UNDP project support:** The Implementing Partner and GEF OFP have requested UNDP to provide support services for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support. The execution support services – whether financed from the project budget or other sources - have been set out in detail and agreed between UNDP Country Office and the Implementing Partner in a Letter of Agreement (LOA). This LOA is attached to this Project Document.

To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services.

### Freetown – Sierra Leone:



The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

**UNDP project support:** The Implementing Partner and GEF OFP have requested UNDP to provide support services for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support. The execution support services – whether financed from the project budget or other sources - have been set out in detail and agreed between UNDP Country Office and the Implementing Partner in a Letter of Agreement (LOA). This LOA is attached to this Project Document.

To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services.

### **Section 3: Segregation of duties and firewalls vis-à-vis UNDP representation on the project board:**

As noted in the [Minimum Fiduciary Standards for GEF Partner Agencies](#), in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document a: 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and

execution functions.

#### Global Component:

UNDP's implementation oversight role in the project – as represented in the project board and via the project assurance function – is performed by UNDP BPPS Deputy Director and UNDP Vertical Fund Compliance Unit (Francine Pickup (BPPS Deputy Director), Nancy Bennet (Head, VFCU)), as well as the Global Technical Adviser, Monica Gaba Kapadia (Chemicals and Waste Hub)]. UNDP's execution role in the project is performed by UNDP Chemicals and Waste Hub (Project Manager (Chemicals and Waste Hub), who will report to Xiaofang Zhou (Director, Chemicals and Waste Hub).

#### Tianjin - China:

In this case, UNDP is only performing an implementation oversight role in the project vis-à-vis our role in the project board and in the project assurance function and therefore a full separation of project implementation oversight and execution duties has been assured.

#### Great Montevideo - Uruguay:

In this case, UNDP's implementation oversight role in the project – as represented in the project board and via the project assurance function – is performed by the UNDP Resident Representative Uruguay (on Project Board), and the UNDP Uruguay Sustainable and Inclusive Development Programme Analyst. UNDP's execution role in the project (as requested by the implementing partner and approved by the GEF) is performed by UNDP Uruguay Operations/Programme, who will report to the Deputy Resident Representative.

#### Kocaeli – Türkiye:

In this case, UNDP's implementation oversight role in the project – as represented in the project board and via the project assurance function – is performed by the UNDP Türkiye Resident Representative (on Project Board), and the UNDP Türkiye Deputy Resident Representative (project assurance). UNDP's execution role in the project (as requested by the implementing partner and approved by the GEF) is performed by UNDP Türkiye Climate Change and Environment Portfolio Manager.

#### Greater Tunis – Tunisia:

In this case, UNDP's implementation oversight role in the project – as represented in the project board and via the project assurance function – is performed by the UNDP Resident Representative Tunisia (on Project Board), and the UNDP CO Climate Environment, Energy and Disaster Risk Reduction Team Leader, UNDP-GEF Regional Technical Advisor (project assurance). UNDP's execution role in the project (as requested by the implementing partner and approved by the GEF) is performed by the Operation Manager who will report to the Deputy Resident Representative.

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#### Freetown – Sierra Leone:

In this case, UNDP's implementation oversight role in the project – as represented in the project board and via the project assurance function – is performed by the UNDP Resident Representative Sierra Leone (on Project Board), and the UNDP Sierra Leone

Environmental Focal Point (project assurance). UNDP's execution role in the project (as requested by the implementing partner and approved by the GEF) is performed by UNDP Sierra Leone Operations, who will report to the Deputy Resident Representative.

#### **Section 4: Roles and Responsibilities of the Project Organization Structure:**

- a) **Project Board:** All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

The two main (mandatory) roles of the project board are as follows:

- 1) **High-level oversight of the execution of the project by the Implementing Partner** (as explained in the ["Provide Oversight"](#) section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.
- 2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the ["Manage Change"](#) section of the POPP).

#### **Requirements to serve on the Project Board:**

- ✓ Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
- ✓ Meet annually; at least once.
- ✓ Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.
- ✓ Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
- ✓ Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

#### **Responsibilities of the Project Board:**

- ✓ Consensus decision making:
  - The project board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.
  - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report;
  - The project board is responsible for making management decisions by consensus.

- In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.
- In case consensus cannot be reached within the Board, the UNDP representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ✓ **Oversee project execution:**
  - Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.
  - Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.
  - Address any high-level project issues as raised by the project manager and project assurance;
  - Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy Executive Coordinator (and the GEF, as required by GEF policies);
  - Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
  - Track and monitor co-financed activities and realisation of co-financing amounts of this project.
  - Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.
  - Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.
- ✓ **Risk Management:**
  - Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.
  - Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.
  - Address project-level grievances.
- ✓ **Coordination:**
  - Ensure coordination between various donor and government-funded projects and programmes.

Ensure coordination with various government agencies and their participation in project activities.

**Composition of the Project Board:** The composition of the Project Board must include individuals assigned to the following three roles:

1. **Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals

from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Project Executive is:

Global Component: United Nations Development Programme (UNDP) – BPPS Deputy Director

Tianjin – China: Foreign Environmental Cooperation Center, Ministry of Ecology and Environment (FECO) - Deputy Director General (DDG)

Great Montevideo – Uruguay: Ministry of Environment – Minister of Environment.

Kocaeli – Türkiye: Ministry of Environment Urbanization and Climate Change (MoEUCC) - General Director of Environmental Management General Directorate.

Greater Tunis – Tunisia: Ministry of Environment - Director General of the Environment and Quality of Life.

Freetown – Sierra Leone: Environmental Protection Agency (EPA) – Executive Chairperson.

**2. Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representative (s) is/are:

Global Component: Foreign Environmental Cooperation Center, Ministry of Ecology and Environment (FECO) – China; Ministry of Environment – Uruguay; Environmental Protection Agency (EPA) – Sierra Leone; Ministry of Environment Urbanization and Climate Change (MoEUCC) – Türkiye; Ministry of Environment – Tunisia.

Tianjin – China: Tianjin Ecology and Environment Bureau, Tianjin Academy of Ecological and Environmental Sciences, Tianjin Housing and Urban-Rural Construction Commission.

Great Montevideo – Uruguay: Municipality of Montevideo, Municipality of Canelones, Municipality of San José and Uruguayan Agency for International Cooperation (AUCI).

Kocaeli – Türkiye: Municipality of Kocaeli.

Greater Tunis – Tunisia: Governorate of Ariana; Governorate of Tunis; Governorate of Manouba; Governorate of Benarous

Freetown – Sierra Leone: Ministry of Planning and Development, Ministry of Lands, Housing and Country Planning, Ministry of Health and Sanitation.

**3. Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is/are:

Global Component: GEF Secretariat.

Tianjin – China: UNDP China Country Office Resident Representative.

Great Montevideo – Uruguay: UNDP Uruguay Country Office Resident Representative.

Kocaeli – Türkiye: UNDP Resident Representative Türkiye.

Greater Tunis – Tunisia: UNDP Tunisia Country Office Resident Representative.

Freetown – Sierra Leone: UNDP Sierra Leone Country Office Resident Representative.



- b) **Project Assurance:** Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is/are:

Global Component: UNDP Vertical Fund Compliance Unit

Tianjin – China: UNDP Country Office China M&E Officer

Great Montevideo – Uruguay: UNDP Uruguay Sustainable and Inclusive Development Programme Analyst.

Kocaeli – Türkiye: UNDP CO Türkiye Deputy Resident Representative.

Greater Tunis – Tunisia: UNDP CO Climate, Environment, Energy and Disaster Risk Reduction Team Leader, UNDP-GEF Regional Technical Advisor.

Freetown – Sierra Leone: UNDP Sierra Leone Environmental Focal Point.

- c) **Project Management – Execution of the Project:** The Project Manager (PM) (also called project coordinator) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

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A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative.

The primary PMU representative attending board meetings is: Project Manager/Coordinator.

Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max. 500 words, approximately 1 page)

On Going Initiatives/projects	Implementation site	Main relevance to this Project
UN Habitat Waste Wise Cities	Global – coordinated from Nairobi	The Waste Wise Network is a global network of cities, a “network between organisations working on solid waste management around the world” to align methodologies and project implementation. It will be an important partner to complement the UNDP networks to reach out to municipalities about the lessons learnt from the SWAP project.
UNDP City2City Network	Global – coordinated from UNDP HQ	City2City Network is a peer-to-peer learning platform providing curated information and bringing together

		cities and experts to design solutions for urban challenges. The platform facilitates engagement among cities for knowledge exchange and approaches for building inclusive cities. It is closely related to the objectives of the SWAP project.
C40 – Advancing Towards Zero Waste Declaration	Global	<p>The Advancing Towards Zero Waste Declaration aims to help cities accelerate the transition towards a zero waste and more regenerative future by taking ambitious, measurable and inclusive actions to reduce municipal solid waste generation and improve materials management.</p> <p>The main commitments/targets in the declaration are:</p> <p>a) Reduce the municipal solid waste generation per capita by at least 15% by 2030 compared to 2015.</p> <p>b) Reduce the amount of municipal solid waste disposed to landfill and incineration by at least 50% by 2030 compared to 2015 and increase the diversion rate away from landfill and incineration to at least 70% by 2030.</p>
ISWA/Avfall Sverige	Global – coordinated from Malmö (Sweden) for Avfall Sverige; Rotterdam, Netherlands for ISWA.	Avfall Sverige has a network of experts which is described elsewhere in this PIF and will be key to the functioning and the quality of the Zero waste clearinghouse. The International Solid Waste Association (ISWA) is an international network of waste professionals and experts whose mission is “To promote and develop sustainable and professional waste management worldwide and the transition to a circular economy.” This expertise, which benefits from working group exchanges and an annual international conference, would be interesting to associate to the implementation of the project.
GEF Integrated Programme (IP) on Eliminating Hazardous Chemicals from the Construction and Fashion Supply Chains	Global	The GEF Supply Chain IP seeks to accelerate the uptake of sustainable production practices that eliminate reliance on harmful chemicals in the construction and fashion sectors. The SWAP project and the Supply Chain IP will work together to replace resource-intensive processes and materials with more sustainable alternatives and creating more circular and transparent value chains.
GEF Integrated Programme (IP) on Circular Solutions to Plastic Pollution.	Global	The Circular Solutions to Plastic Pollution Integrated Program tackles plastic pollution using a circular economy approach. Packaging, particularly single-use related to the food and beverage sector, will be the priority since it is the main source of plastic waste in developing countries. The particularity of SWAP is to address waste streams in an integrated way. Plastic is an important material/waste stream that need special consideration. Cities have willingness and tools to reduce the use of the plastics particularly in the packaging and shipping applications, and develop the policies, incentives, and instruments to reduce the plastic leakage and pollution.
Green Production and Sustainable Development in Secondary Aluminum, Lead, Zinc and Lithium Sectors in China. (GEF 10673)	China UNDP, FECO	<p>The project will start in 2024. The objective of the project is to reduce and eliminate UP-POPs (PCDD/Fs, HCB and PCNs) and Brominated flame retardants (BFRs) releases through the introduction of BAT/BEP in the Secondary Aluminum and Zinc production, and implementation of a lifecycle management in lead acid battery and lithium-ion battery recycling in China.</p> <p>The project intends to select an automobile dismantling enterprise in China to demonstrate the BAT/BEP technology. The POPs reduction BAT/BEP experience can be used as a reference for this project. Given the same</p>

		POPs emission reduction target, the relevant management policies produced by this project will also contribute to the smooth implementation of the Tianjin SWAP project.
Improvement of the environmental performance of the foam sector: Phase out and management of hexabromocyclododecane (HBCD) in China. (GEF 10163)	UNIDO, FECO	<p>The project has been implemented from 2019 to 2023. The objective of the project is to improve the environmental performance of the foam sector in China through the phase-out, introduction of HBCD alternatives and environmentally-sound management of HBCD-containing EPS/XPS foams.</p> <p>The project has carried out substitution demonstration and reduction, phase-out at large enterprises in the HBCD production, fire-resistant EPS and XPS sectors used in buildings, and has promoted environmentally sound disposal of HBCD-containing construction wastes in China, improved the environmental performance of the foam sector in China. This project will also contribute to the environmentally sound disposal of HBCD-containing construction waste in Tianjin.</p>
Resilient Urban Sierra Leone (RUSLP) Project	Hastings, Sierra Leone	<p>The Ministry of Finance is implementing the World Bank funded Resilient Urban Sierra Leone (RUSLP) Project.</p> <p>The objective of the Resilient Urban Sierra Leone Project for Sierra Leone is to improve integrated urban management, service delivery, and disaster emergency management in the Western Area and secondary cities of Sierra Leone.</p> <p>Most of the project components and sub-components are aligned with the SWAP Project, especially: "Neighbourhood upgrading and greening in Freetown": Solid waste management (SWM) upgrading in Freetown and secondary cities, and this will enhance the development of an engineering landfill site at Hastings for Freetown City.</p>
SAICM Project	Sierra Leone	<p>In 2018, the SAICM secretariat received funding from the Global Environmental Facility (GEF) to execute a global project to scale up action on SAICM's 'Emerging Policy Issues' (EPIs) and support knowledge management and information exchange. The project is implemented by UNEP and executed by the SAICM Secretariat.</p> <p>The SAICM GEF 9771 project on Global Best Practices on Emerging Chemical Policy Issues of Concern under SAICM aims to accelerate the adoption of national and value chain initiatives to control Emerging Policy Issues (EPIs) and contribute to the 2020 SAICM goal and the 2030 Agenda for Sustainable Development.</p> <p>The project is comprised of three main components: i) Lead in paint: Working with governments to develop laws that restrict the use of lead paint and working with SMEs to promote the phase-out of lead additives.; ii) Chemicals in products: Increasing the ambition of different stakeholders to track and control chemicals of concern in products along the value chains of electronics, toys, and building products sectors.; iii) Knowledge and stakeholder engagement: improving access to information and knowledge on chemicals management amongst SAICM stakeholders.</p> <p>The country has developed National Implementation Plans for Stockholm &amp; Minamata; and is currently implementing the SAICM project designed to develop a National Chemicals and Waste Profile. This is very vital and can be up-scale under the SWAP project.</p>

Sierra Leone Economic Diversification Project (SLEDP)- Pro-Blue Project Ministry of Tourism and Cultural Affairs and the Ministry of Trade and Industry	Sierra Leone	<p>The Sierra Leone Economic Diversification Project (SLEDP) is a 5-year Project implemented by the Government of Sierra Leone with a USD 40 million grant support from the World Bank. This engulfs another project called the <i>Sierra Leone Circular Economy and Sustainable Tourism project</i>. The platform is a core element of SLEDP and serves as a public-private consultation platform throughout the project to provide strategic direction for prioritizing opportunities in the plastic circular economy for Sierra Leone. The Project is implemented under the Ministry of Finance and the key beneficiaries are the Ministry of Tourism and Cultural Affairs and the Ministry of Trade and Industry.</p> <p>The SLEDP Project comprises the <i>Sierra Leone Circular Economy and Sustainable Tourism project</i> under PRO-BLUE which deals with circularity, another component that deals with entrepreneurship. Thus, are aligned with the SWAP Project set objective.</p>
Organic waste to energy Project Freetown Waste Transformers Private Initiative	Freetown, Sierra Leone	<p>The organic waste-to-energy project wants to target the limited access to electricity and an unreliable grid that has led to the mass use of diesel generators in Sierra Leone, especially among MSMEs. The waste management infrastructure in Freetown is also beset with inefficient collection processes, making waste management a major challenge. Freetown Waste Transformers received a GSMA grant in March 2022 to digitize the waste collection process and improve the efficiency of waste coordination by implementing a GPS mobile mapping app.</p> <p>At the end of the grant period, Freetown Waste Transformers will be empowered and equipped with the knowledge and capacity to predict market trends as it scales its operations and contributes to increasing energy access rates and a stronger waste management infrastructure in Freetown.</p>
Analyzing and optimizing the waste management systems to reinforce the role of the private sector in the waste management sector in Tunisia. (GIZ)	Tunisia.	The project aims to analyze and optimize the waste management system ('filières' in French) to enhance the involvement of the private sector in waste management sectors. Additionally, the project aims to develop the Extended Producer Responsibility (EPR) instrument as part of a circular economy strategy. The project targets the design of EPR systems for two sectors: small batteries and cooking oil.
Drawing up a strategic national action plan to implement the Circular Economy in Tunisia. (GIZ)	Tunisia.	The project aims to assess the current state of the circular economy in Tunisia, with the goal of developing a concrete action plan for advancing circular economy initiatives in the country. Additionally, it intends to implement a pilot program based on industrial symbiosis principles.
Climate Protection through the circular economy in Tunisia (Protect) – (GIZ / ANGEd)	Tunisia.	The main objective of the Protect project is to enhance solid waste management by integrating aspects of circular economy (CE) and climate change (CC), while also promoting job creation and gender equality.
Development of LISP "Littoral Sans Plastique" strategy and its action plan based on circular economy (including the implementation follow up).	Tunisia.	The World Bank, through its PROBLUE program, provided technical assistance to aid the Tunisian government in developing a 'Plastic-Free Coastline – LISP' strategy and its operational action plan to combat plastic marine pollution along the Tunisian coast.
Reducing Tourism Marine Litter in Northern Africa through the Contribution of a Sustainable Waste Management System.	Tunisia.	TouMaLi contributes to the reduction of waste flows into the seas of the MENA region caused by tourism, while promoting circular economy solutions such as the reduction

German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).		and reuse of unavoidable waste in Morocco, Tunisia and Egypt.  The project, led by the University of Rostock and supported by a consortium of eight other institutions from academia, think tanks and businesses, as well as local political partners, aims to significantly reduce marine litter until 2025 through the following measures: baseline assessment of marine litter pollution, development of an overall strategy for waste management, awareness raising, and capacity building as well as knowledge transfer to key stakeholders in the target region, such as hotels and communities.
Composting of Green Waste in Bizerte.  Rostock University / Municipality of Rostock.	Tunisia.	This project aims to valorize green waste and is part of a cooperation established in 2016 between the cities of Rostock in Germany and the town of Bizerte in Tunisia, focusing on sustainable development, good local governance and the fight against climate change. Concrete objectives include the construction and operation of a composting site for organic waste, as well as the maintenance of green spaces in the city of Bizerte.
ASIMA-Tunis Project	Tunis, Tunisia	A project launched in February 2020 “Tun is capitale”, initiated by the municipality of Tunis, this includes “strategic planning and multi-level governance for a multi-level metropolitan city”. The aim is to define a city strategy aligned with the Agenda 2030.
Uruguay + Circular  GEF-UNDP	Uruguay (National)	Reduction of emissions and pollutant releases (GHG, UPOPs) through integrated chemicals and waste management towards a circular economy in Uruguay. The project aims to support interventions in a complementary way to the SWAP Initiative within a national scope.  The project concept has been recently approved and it is expected to be designed within the year 2024, for starting its implementation during 2025 for 5 years.
Strengthening national initiatives and improving regional cooperation for the environmentally sound management of persistent organic compounds in waste electrical and electronic equipment (WEEE) in Latin American countries'.	Uruguay (National)	The objective of the project is to strengthen national initiatives and improve regional cooperation for the environmentally sound management of POPs in waste electrical and electronic equipment (WEEE) in Latin American countries. It has 4 components: 1. Strengthening national POPs management initiatives on WEEE. / 2. Strengthening of national capacities for WEEE dismantling and recycling facilities/infrastructure with emphasis on POPs containing fractions. / 3. Improved regional cooperation for the management of WEEE POPs containing fractions. / 4. Monitoring and evaluation.
Financing Agrochemicals Reduction Management (FARM)	Uruguay (National)	This project aims to strengthen national actions to reduce the use of chemical synthesis by strengthening the registry of chemical synthesis pesticides, incorporating environmental risk assessment; promoting bio-inputs to reduce the use of chemical synthesis pesticides and promoting production practices that reduce the use of pesticides and their impact on the environment. The project also integrates a second component to manage plastic waste from agriculture, for which a modification of the current regulations will be addressed, integrating into the ERP model the plastic products from agriculture to achieve a management that allows their recovery and avoids burial and dispersion in the environment.
IDB Technical cooperation - Ministry of Environment: Support to the implementation of the National Waste Plan	Uruguay (National)	This cooperation support the government in the implementation of the National Waste Plan, focusing on the closure of open dumps, construction of sanitary landfills, institutional strengthening of departmental municipalities

		and promotion of the circular economy. It will focus on the design of an operational strategy to improve the sector with a prioritization of the necessary investments.
IDB Technical Cooperation - Municipality of Montevideo: 'Improvement of Waste Management and Sanitation Systems'.  'Innovation applied to waste management in Montevideo'	Montevideo, Uruguay	This technical cooperation will support the Municipality of Montevideo in the elaboration of an Action Plan that, based on the current diagnosis, will plan immediate actions for the improvement of waste management in the framework of the loan operation in preparation UR-L1183 - Urban Sanitation Plan (PSU).  Promote technological and behavioural innovation solutions for the improvement of integrated waste management in Montevideo, with a focus on increasing the amount of recyclable waste recovered, seeking operational efficiency in collection routes, cost reduction, data generation and improved service to citizens.
GEF 7–GCIP Promoting the transition towards a circular economy in Uruguay through innovative clean technologies	Uruguay (National)	The objective of the project is to promote the transition towards sustainable forms of production and low emission technologies in two prioritized sectors, the food system and energy, with a perspective of Circular Economy and innovations in clean technologies. The project is part of the Global Clean Technology Innovation Program (GCIP) of the United Nations Industrial Development Organization, which places special emphasis on the detection of new clean technology solutions and the evaluation of their viability, as well as in the implementation of demonstration projects capable of generating information and knowledge, to promote public policies and the development of adequate financial and non-financial instruments, which in this case will be adapted to the Uruguayan context.
<i>Integrated Waste Management and Circular Economy Project (Congress of Mayors - EU) - Territorial Development Fund with a focus on circularity.</i>	Uruguay (National)	The call aims to financially support productive development and circular economy projects focused on MSMEs throughout the national territory. It is part of the agreements generated in the framework of the Congress of Mayors (through its project 'Integrated waste management and circular economy, institutional strengthening and good practices', co-financed by the European Union) and the National Development Agency. The second edition of the Territorial Development Fund (FDT) is aimed at supporting territorial projects for productive development and promotion of the circular economy for the valorization of waste through municipal governments.
National program to support the closure of open-country landfills.	Uruguay (National and departmental)	The Ministry of Environment provides USD 17 million to assist municipal governments in landfill closures.
Tires plan  Battery plan  Vale plan  Agrochemical and obsolete pesticides packaging plan	Uruguay (National and departmental)	National Plans that encourage the minimization of generation, and the collection and promotion of reuse, recycling and other forms of valorisation of different waste streams. (Packaging, Tires, Batteries and Agrochemical wastes)
Program for the labor reconversion of urban solid waste classifiers and sorters into non-homestead waste transporters	Montevideo, Uruguay	It is aimed at sorters and former sorters of urban solid waste who wish to become formalized as non-domestic waste haulers to provide waste collection and transportation services to companies and businesses in the city.  The objectives are to advise them on the procedures to formalize a productive enterprise, to guide and accompany them in the daily activity of the company and in the



		necessary instruments for its development (service provision contracts), to provide training in regulatory, commercial, accounting and contractual aspects, and to create meeting spaces to promote solutions to common problems.
Green Montevideo	Montevideo, Uruguay	Green Montevideo is a strategy committed to a cultural change, through the responsible use of resources, the smart organization of services, the social inclusion of inhabitants, the generation of opportunities and the care for diversity. For Montevideo to become an increasingly cleaner, more efficient, sustainable, and egalitarian city, the commitment of everyone is essential. Within this strategy, different programmes are carried out, such as: 'Montevideo Avanza', 'Montevideo Integra', Ecocentres, Neighbourhood to Neighbourhood Recycling Programme, Home Composting, among others.
ECOCENTRO	Montevideo, Uruguay	These infrastructures (Ecocentro) allow the reception of various recyclable materials and unused items, which will be disposed of separately to facilitate their recovery through authorized waste managers.  Currently, there are 2 Ecocentros in operation: Buceo and El Prado.
Montevideo Integra	Montevideo, Uruguay	A bulky waste (WEEE and furniture) recycling project designed and managed by sorters. Promote their reparation, looking to reduce the waste disposal.
Organic waste recovery programme in the Municipality of Montevideo	Montevideo, Uruguay	As of November 2022, an initial programme of community composting of household organic waste is being developed, which manages organic material separated at source from housing cooperatives in the Rivera Park area.
Sustainable Homes Program  Sustainable Institutions Program (schools and eco-offices)	Canelones, Uruguay	Program consisting of the delivery of equipment to each household, schools and offices in the Department, in the 30 municipalities, consisting of two intra-household containers (one for recyclable waste and one for non-recyclable waste) and a vermicompost with a nucleus of Californian red worms ( <i>Eisenia Foetida</i> ).
Zero Waste Initiative  (2017-ongoing).  Financed and Implemented by MoEUCC.	Türkiye	The "Zero Waste Project" carried out by MoEUCC in Türkiye; with the vision of transition to a circular economy and the understanding that waste is a resource; it aims to prevent and reduce the impact of waste on climate change, to reduce it through material recovery, and to provide living environments where people live a quality life within the carrying capacity of healthy ecosystems.  'Zero waste project' supports an approach to resource and waste management based on circularity. It promotes sustainable production and consumption habits and encourages the efficient use of resources. Zero waste entails avoiding wastefulness and advocating for the prevention, reduction, reuse, and recycling of waste. This can help achieve positive socio-economic outcomes, including the development of social solidarity.
Local Zero Waste Initiatives Program  (estimated project duration June 2024-June 2027)  European Union (EU)  Implementing Agency: UNDP	Türkiye	The general goal of the project is to i) protect the environment by supporting zero waste initiatives of municipalities and ii) explain the importance of climate change. The specific aim of the project is to increase capacity and awareness at municipal and public levels to reduce greenhouse gas emissions and the amount of carbon dioxide equivalent greenhouse gas emissions and waste in the waste sector.

Capacity Increase in Marine Litter Management in Türkiye (estimated project duration June 2024-June 2028). European Union (EU) Implementing Agency: UNDP	Türkiye	The general goal of the project is to ensure the protection of human health and the environment largely by improving Türkiye's technical capacity in the field of marine litter management. To achieve this goal, various trainings and workshops will be given to different target groups working in the field of marine litter pollution and management, especially on transboundary pollution, legal framework, data collection and evaluation of marine litter resources.
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## Core Indicators

Indicate expected results in each relevant indicator using methodologies indicated in the GEF-8 Results Measurement Framework Guidelines. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

### Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
<b>Expected metric tons of CO<sub>2</sub>e (direct)</b>	8150000	7052000	0	0
<b>Expected metric tons of CO<sub>2</sub>e (indirect)</b>	0	2954262	0	0

### Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
<b>Expected metric tons of CO<sub>2</sub>e (direct)</b>				
<b>Expected metric tons of CO<sub>2</sub>e (indirect)</b>				
<b>Anticipated start year of accounting</b>				
<b>Duration of accounting</b>				

### Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
<b>Expected metric tons of CO<sub>2</sub>e (direct)</b>	8,150,000	7,052,000		
<b>Expected metric tons of CO<sub>2</sub>e (indirect)</b>		2,954,262		
<b>Anticipated start year of accounting</b>	2024	2025		
<b>Duration of accounting</b>	10	10		

### Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
<b>Target Energy Saved (MJ)</b>				

### Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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### Indicator 9 Chemicals of global concern and their waste reduced

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
11,410.00	8,121.48	0.00	0.00

### Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
Tetrabromodiphenyl ether and pentabromodiphenyl ether		4,578.20		
Perfluorooctanoic acid (PFOA)		601.20		
Chlorinated paraffins		47.62		
UV-328		1,502.80		
Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride	1,153.00			
Hexabromocyclododecane (HBCDD)	7,300.00	1,360.10		
Short-chain chlorinated paraffins (SCCPs)	106.00			
Decabromodiphenyl ether (commercial mixture, c-decaBDE)	2,790.00			

### Indicator 9.2 Quantity of mercury reduced (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
61.00	31.56		

### Indicator 9.3 Hydrochlorofluorocarbons (HCFC) Reduced/Phased out (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

### Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

**Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)**

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

**Indicator 9.6 POPs/Mercury containing materials and products directly avoided**

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
11,410.00	1,310,558.99		

**Indicator 9.7 Highly Hazardous Pesticides eliminated**

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

**Indicator 9.8 Avoided residual plastic waste**

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
954,144.00	1,042,000.00		

**Indicator 10 Persistent organic pollutants to air reduced**

Grams of toxic equivalent gTEQ (Expected at PIF)	Grams of toxic equivalent gTEQ (Expected at CEO Endorsement)	Grams of toxic equivalent gTEQ (Achieved at MTR)	Grams of toxic equivalent gTEQ (Achieved at TE)
1,320.00	457.00		

**Indicator 10.1 Number of countries with legislation and policy implemented to control emissions of POPs to air (Use this sub-indicator in addition to Core Indicator 10 if applicable)**

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

**Indicator 10.2 Number of emission control technologies/practices implemented (Use this sub-indicator in addition to Core Indicator 10 if applicable)**

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

**Indicator 11 People benefiting from GEF-financed investments**

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
<b>Female</b>	2,476,271	2,476,271		
<b>Male</b>	2,426,394	2,426,394		
<b>Total</b>	<b>4,902,665</b>	<b>4,902,665</b>	0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

Due to formatting limitations imposed by the portal, it is better to read this explanation in the Word document CEO Endorsement Request which can be found in the Library.

#### GEBs – Assumptions and calculations

GEBs are calculated over a period of 10 years: 5 years of project implementation + 5 years after project implementation.

##### Assumptions:

1. The SWAP Initiative through its design and interventions will gradually offset/neutralize the increase in waste generation in each of the 5 cities over a period of 10 years.

It is estimated that the waste generation will conservatively increase 1% per year in a BAU scenario. (Reference: WB - A Global Snapshot of SWM for each of the participating countries).

2. The SWAP Initiative through its design and interventions will gradually increase recyclable rates (fractions: recyclable and organic) up to 6% of the baseline during 5 years of project implementation. The project after 10 years will have increases recyclable rates (fractions: recyclable and organic) up to 15% of the baseline. (These targets are aligned to national policies of the participating countries).

#### Core Indicator 6: Greenhouse gas (GHG) emission mitigated.

##### Indicator 6.7 Emissions avoided outside AFOLU sector (direct)

Direct GHG emissions were calculated based on the avoided waste being disposed of due to waste generation reduction, increase of recycling rates (Output A1) based on Assumptions 1 and 2, and demonstration activities (Output B4, Output C1, Output C2, Output C3, Output C4).

For the calculation the following tCO<sub>2</sub>e/ton of waste considered based on National and Local GHG Inventories:

- Tianjin: 0.86 tCO<sub>2</sub>e/ton of waste.
- Great Montevideo: 1.424 tCO<sub>2</sub>e/ton of waste.
- Kocaeli: 0.037 tCO<sub>2</sub>e/ton of waste.
- Freetown 0.78 tCO<sub>2</sub>e/ton of waste.
- Greater Tunis: 1.217 tCO<sub>2</sub>e/ton of waste.

In addition, based on the plastics avoided due to waste generation reduction, increase of recycling rates (Output A1) based on Assumptions 1 and 2, and demonstration activities (Output B4, Output C1, Output C2 and Output C3), 1.5 tons of CO<sub>2</sub>e avoided per ton of plastics (source: GEF Plastics IP) from recycled plastics, reused plastics, or avoidance of newly produced plastics to replace the use of virgin materials from oil and gas industry were calculated.

Indirect GHG emissions were calculated for a period of 10 years after project completion considering a replication factor of 2 on the direct emissions to be evidenced during the 5 years of project implementation. The indirect emissions reductions will be enabled through the replication and scale up strategies (Output B5)

## Core Indicator 9: Chemicals of global concern and their waste reduced.

### Calculations for CI 9.1, 9.2 and 9.6

POPs/Hg removed or disposed were calculated based on the demonstration activities to be implemented in each of the participating cities (mainly linked to Output B4, Output C1, Output C2, Output C3, Output C4). The design of the demonstration activities considers a gradual improvement of baseline waste streams up to 20% during project implementation (considering results from the 3rd year onwards). Based on the replication and scale up strategies (Output B5) an additional and gradual 5% of improvement after 5 years of project implementation was considered.

The following assumptions were considered for the different POP/Hg containing waste streams:

#### Automotive industry

HBCD (Tianjin): Content 2% - 20% potentially contains HBCD. Tianjin team PPG assessment.

UV-328 (Tianjin): China Coatings Industry Association UV-328 is mainly added to the topcoat, with a dosage of approximately 1-3%. Tianjin team PPG assessment.

#### Electronics

PBDE (Tianjin, Montevideo, Kocaeli, Freetown, Tunis): Content 1%. 27.5% of weight are plastics, 10% of plastics contains PBDEs. E-waste Monitor

PFOAS: (Montevideo, Kocaeli, Freetown, Tunis): Content 1%. Out of the total weight of electronics

MCCP (Tianjin, Montevideo, Kocaeli, Freetown, Tunis): Content 100 mg/kg, Out of the plastic fraction of EEE .

#### Packaging Cardboard

PFOAS (Montevideo, Kocaeli): Content 1%. 56% of cardboard packaging contaminated with PFAS. IPEN / UNEP Report .

#### Packaging Plastics

UV-328 (Montevideo, Kocaeli, Freetown, Tunis). Content 0.1%, UNEP Report .

#### Textile:

PFOAS (Freetown, Tunis): Content 5%. 1% of textiles potentially contains PFOS.

#### Construction:

HBCD (Montevideo): Content 0.01%. Based on Uruguay NIP update being developed.

#### Medical

Hg (Tianjin, Freetown): 144mg/t. Tianjin team PPG assessment.

## Indicator 9.8 Avoided residual plastic waste.

The avoided residual plastic waste was calculated based on the plastics avoided due to waste generation reduction, increase of recycling rates linked to the Assumptions 1 and 2, as well as the demonstration activities to be implemented in each of the participating cities (mainly linked to (Output B4, Output C1, Output C2, Output C3, Output C4). The design of the demonstration activities considers a gradual improvement of baseline waste streams up to 10% from the 3rd year of project implementation until 5 years after project implementation.

The following plastic content was considered in each of the waste streams:

Automotive: 12%; Packaging cardboard: -%; Packaging Plastics: 100%; Electric and Electronics Equipment: 27.5%; Textile: 43%; Construction 1.5%.

## Core Indicator 10: Persistent organic pollutants to air reduced.



Persistent organic pollutants to air reduced were calculated based on the waste being disposed due to waste generation reduction, increase of recycling rates linked to the Assumptions 1 and 2, upgrading of existing treatment and disposal facilities (Output C1) and demonstration activities (Output B4, Output C2 and Output C3). In addition, a gradual improvement of existing open burning practices from the 3rd year of project implementation was considered.

The following baseline in relation to open burning practices was considered:

Tianjin: Tianjin confirmed there are no open burning practices.

Montevideo: 2%. Uruguay is currently updating its NIP. Based on latest results it has been identified that 5% of municipal waste within the metropolitan area is being treated within the informal sector, out of the 5% 1/3 is estimated to be openly burnt. Additionally, no open burning practices in landfills have been identified.

Kocaeli: Kocaeli confirmed there are no open burning practices.

Freetown: 20%. Freetown estimates an average of 20% of waste is being openly burnt

Tunis: 7%. Tunis estimates an average of 7% of waste is being openly burnt.

For the emissions calculations the Stockholm Toolkit was used considering existing treatment and disposal practices (and related technologies) informed by cities.

Remark: In comparison to the PIF design, this core indicator was reduced. The reason behind this reduction is that during the PPG phase a deeper assessment on the baseline situation in each of the municipalities were conducted evidencing:

- Lower percentage of open burning practices available in cities.
- Better waste incinerators technology in those cities where incineration is performed.

Both situations lead to a lower baseline of persistent organic pollutants in air, and as a consequence a reduced possibility of improvement.

Core Indicator 11: People benefiting from GEF-financed investments.

People benefiting from GEF investments were estimated based on the people who will be directly involved in different activities such as: training, capacity building, demonstration activities, etc. In addition, people benefiting from the results of Assumptions 1 and 2 were estimated based on the generation rate/inhabitant in each of the cities.

## Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		

Climate	Substantial	Please see the project's SESP for details. In addition to the social and safeguards dimensions, zero waste strategies will consider and include climate related risks and measures to address them, such as extreme weather events, like extreme heat , and their impact on waste infrastructure and operations. The pilots will include targeted assessments, which will assess the vulnerability of the facilities to natural disasters and propose mitigation measures to safeguard them in the resulting site-specific ESMPs which will include proper mitigation measures.
Environmental and Social	Substantial	Please see the project's SESP for details.
Political and Governance	Moderate	Change of Government, City councils, and/or political instability, might result in new management and technical appointees within entities that are project partners, requiring additional efforts to ensure buy-in for project support and timely implementation. In the situation that this would happen, technical personnel from related UNDP CO and the UNDP RTA will do their utmost to inform and convince new decision-makers on the importance of the project, the reasons why it was developed and the positive impact it will have on human health and the environment in selected cities.

#### INNOVATION

Institutional and Policy	Low	The project strategy, objectives and activities are fully aligned with the national and local policies and strategies on waste management and are also fully aligned with the International Chemicals and Waste Conventions of which China, Türkiye, Sierra Leone, Uruguay and Tunisia are parties, including the Stockholm Convention on Persistent Organic Pollutants (POPs) and the Minamata Convention on mercury. Consequently, risks related to strategies and policies are considered low.
Technological	Moderate	The project will foster to introduce innovative solutions to local contexts towards zero waste strategies in each of the participating cities. Meaning this the adoption of successful experiences and learnings worldwide adapted to local contexts. The project ensures engagement and technical advisory exchanges with key strategic partners at global and national level.
Financial and Business Model	Moderate	Private sector partners are reluctant to play an active role during project execution. During the PPG stage, the main concerns, and interests of the key stakeholders (including private sector) were compiled, allowing the development of proper stakeholder engagement plan during project implementation. In addition, the project foresees to implement activities that enables investment in waste management infrastructure, recycling, circular economy business models implementation, and adoption of BAT/BEP to promote green supply chains. (for example Investment Plans, Financial Strategies, etc). Finally, the project will also consider alternative financing mechanisms or risk-sharing strategies to mitigate potential challenges in attracting private sector participation.

#### EXECUTION

Capacity	Moderate	Government authorities, civil servants, private sector and other stakeholders may lack the knowledge and skills necessary for the integrated chemicals and waste management towards zero waste in line with waste hierarchy principles. The activities designed within the Global Component, complementary to the activities in each of the cities) are intended to ensure proper advice and capacity building (e.g: advisory services activities, annual workshops, study tours, webinars, knowledge management platform, etc.) in key stakeholders in the participating cities to ensure knowledge available and development of skills to effectively implement the activities.
Fiduciary	Moderate	Impacts due to fluctuations in credit rates, inflation, markets and currency. Fluctuations in the national macroeconomic context, in a global context of increased economic volatility, may affect project total budget execution. UNDP actively monitors expenditures and exercises global oversight of project delivery, effectively mitigating operational risks arising from currency fluctuations. It will also keep analysing whether the initial budget estimated remain adequate taking into account market fluctuations.
Stakeholder	Substantial	Please see the project's SESP for details. In addition to the safeguards dimensions, in the event of deeply rooted conflicts or opposition arising, the project will consider additional strategies, such as conflict resolution mechanisms or alternative approaches to address specific stakeholder concerns.
Other		
Overall Risk Rating	Substantial	

## C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Explain how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this. (max. 500 words, approximately 1 page)

The Shifting to Zero Waste Against Pollution (SWAP) Initiative will deliver on the objectives of the Chemical and Waste Focal Area set for the GEF 8 Programming Directions since hazardous chemicals, including chemicals listed in Stockholm and Minamata Conventions, are used in or emitted from one or more supply chains making them widely present in cities and their different waste streams. The SWAP Initiative will support the transition to a circular economy with upstream interventions and solutions, circularity of materials, sustainable policies, green production principles and sustainable consumption patterns that consequently result in the reduction of hazardous chemicals and waste as co-benefits. The Initiative will deliver on:

**Objective 1: Creation, strengthening and supporting the enabling environment and policy coherence to transform the manufacture, use and sound management of chemicals and to eliminate waste and chemical pollution.**

On this Objective the SWAP Initiative will contribute by developing and strengthening policies and regulatory frameworks as well as building capacities in government institutions, private sector and CSOs to support the long-term objective of zero-waste cities. The initiative through its different interventions in close coordination with key stakeholders will contribute to evidence at municipal level practices, knowledge, strategies and planning for improving existing waste streams management (including hazardous waste) in line with waste hierarchy principles, as well as, the adoption of sustainable policies (such as green procurement) and fiscal/financial incentives encouraging waste prevention and circularity of materials in line with a circular economy.

Financing mechanism and incentives will be assessed, developed and implemented to allow for access to finance for environmental sound management of different waste streams, sustainable recycling practices, development of circular business models, and to sustain and scale project results.

Furthermore, the Initiative will contribute to the implementation of green and sustainable production principles. Mainly in collaboration with the private sector, the SWAP Initiative will support manufacturers in introducing life cycle assessments (LCA) throughout the value chain and set innovation targets for the design and scale-up of safer, more sustainable products, production processes and services to improve resource efficiency (e.g. sustainable materials management), phase out the use of chemicals of concern and lower the impact of products and processes, including at the end of life.

## **Objective 2: Prevention of future build-up of hazardous chemicals and waste in the environment.**

The SWAP Initiative will contribute to the prevention of future build-up of hazardous chemicals and waste mainly through the interventions planned within Component 3 which aims to provide upstream solutions to promote circular economy and sustainable materials management. The project will promote LCA of value chains with focus on eliminating the use of hazardous chemicals (including mercury and POPs) in products and processes, as well as the introduction of best available techniques and best environmental practices to minimize and eliminate emissions of unintentionally produced POPs and mercury in different waste streams management.

The project also builds on the support to the implementation of international agreements and initiatives: Stockholm and Minamata Convention and SAICM. Through its proposed interventions SWAP has the potential to generate multiple global environmental and socioeconomic benefits, including facilitating equal access of women and men to financial services and productive assets, as well as the formalization of informal waste management workers and activities to boost their livelihoods.

The Global Initiative is developed in line with the following GEF-8 principles: Cost effectiveness; Sustainability; innovation; Private Sector Engagement; Facilitates women's participation and decision-making opportunities; Facilitates gender sensitive awareness raising and communication.

Lastly, the SWAP initiative will positively contribute to combat the triple planetary crisis on the three main interlinked issues: climate change, biodiversity loss and pollution, which fully align with GEF's objective for a healthy planet and healthy people.

In relation to the Kunming-Montreal Global Biodiversity Framework, the SWAP Initiative is relevant to and will clearly impact on the following targets:

Target 7. Reduce pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: reducing excess nutrients lost to the environment by at least half including through more efficient nutrient cycling and use; reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management, based on science, taking into account food security and livelihoods; and also preventing, reducing, and working towards eliminating plastic pollution.

Target 16. Ensure that people are encouraged and enabled to make sustainable consumption choices including by establishing supportive policy, legislative or regulatory frameworks, improving education and access to relevant and accurate information and alternatives, and by 2030, reduce the global footprint of consumption in an equitable manner, halve global food waste, significantly reduce overconsumption and substantially reduce waste generation, in order for all people to live well in harmony with Mother Earth.

The SWAP Initiative is aligned and will contribute to one of the Global Targets for 2030 "Cut global food waste in half and significantly reduce over consumption and waste generation"

## D. POLICY REQUIREMENTS

### Gender Equality and Women's Empowerment

**We confirm that gender dimensions relevant to the project have been addressed during Project Preparation as per GEF Policy and are clearly articulated in the Project Description (Section B).**

Yes

**1) Does the project expect to include any gender-responsive-measures to address gender gaps or promote gender equality and women's empowerment?**

Yes

If the project expects to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment, please indicate in which results area(s) the project is expected to contribute to gender equality:

**Closing gender gaps in access to and control over natural resources;**

**Improving women's participation and decision-making; and/or**

Yes

**Generating socio-economic benefits or services for women.**

Yes

**2) Does the project's results framework or logical framework include gender-sensitive indicators?**

Yes

### Stakeholder Engagement

We confirm that key stakeholders were consulted during Project Preparation as required per GEF policy, their relevant roles to project outcomes has been clearly articulated in the Project Description (Section B) and that a Stakeholder Engagement Plan has been developed before CEO endorsement.

Yes

**Select what role civil society will play in the Project**

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier; Yes

Member of project steering committee or equivalent decision-making body ;

Executor or co-executor;

Other (Please explain)

### Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in section B project description?

Yes

## Environmental and Social Safeguards

We confirm that we have provided information regarding Environmental and Social risks associated with the proposed project or program, including risk screenings/ assessments and, if applicable, management plans or other measures to address identified risks and impacts (this information should be presented in Annex E).

Yes

Please provide overall Project/Program Risk Classification

### Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial	High or Substantial		

## E. OTHER REQUIREMENTS

### Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described during Project Preparation in the Project Description and that these activities have been budgeted and an anticipated timeline for delivery of relevant outputs has been provided.

Yes

### Socio-economic Benefits

We confirm that the project design has considered socio-economic benefits to be delivered by the project and these have been clearly described in the Project Description and will be monitored and reported on during project implementation (at MTR and TER).

Yes

## ANNEX A: FINANCING TABLES

### GEF Financing Table

#### Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
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		Regional/ Global						
UNDP	GET	Global	Chemicals and Waste	POPs	Grant	3,358,250.00	302,242.50	3,660,492.50
UNDP	GET	Sierra Leone	Chemicals and Waste	POPs	Grant	4,427,000.00	398,430.00	4,825,430.00
UNDP	GET	Tunisia	Chemicals and Waste	POPs	Grant	4,960,000.00	446,400.00	5,406,400.00
UNDP	GET	Türkiye	Chemicals and Waste	POPs	Grant	4,960,000.00	446,400.00	5,406,400.00
UNDP	GET	Uruguay	Chemicals and Waste	POPs	Grant	4,712,000.00	424,080.00	5,136,080.00
UNDP	GET	Global	Chemicals and Waste	Mercury	Grant	176,750.00	15,907.50	192,657.50
UNDP	GET	Sierra Leone	Chemicals and Waste	Mercury	Grant	233,000.00	20,970.00	253,970.00
UNDP	GET	Uruguay	Chemicals and Waste	Mercury	Grant	248,000.00	22,320.00	270,320.00
UNDP	GET	China	Chemicals and Waste	POPs	Grant	4,712,000.00	424,080.00	5,136,080.00
UNDP	GET	China	Chemicals and Waste	Mercury	Grant	248,000.00	22,320.00	270,320.00
<b>Total GEF Resources (\$)</b>						<b>28,035,000.00</b>	<b>2,523,150.00</b>	<b>30,558,150.00</b>

### Project Preparation Grant (PPG)

Was a Project Preparation Grant requested?

true

PPG Amount (\$)

300000

PPG Agency Fee (\$)

27000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNDP	GET	Global	Chemicals and Waste	POPs	133,000.00	11,970.00	144,970.00
UNDP	GET	Sierra Leone	Chemicals and Waste	POPs	38,000.00	3,420.00	41,420.00
UNDP	GET	Tunisia	Chemicals and Waste	POPs	38,000.00	3,420.00	41,420.00
UNDP	GET	Türkiye	Chemicals and Waste	POPs	38,000.00	3,420.00	41,420.00
UNDP	GET	Uruguay	Chemicals and Waste	POPs	38,000.00	3,420.00	41,420.00
UNDP	GET	Tunisia	Chemicals and Waste	Mercury	2,000.00	180.00	2,180.00
UNDP	GET	Türkiye	Chemicals and Waste	Mercury	2,000.00	180.00	2,180.00
UNDP	GET	Uruguay	Chemicals and Waste	Mercury	2,000.00	180.00	2,180.00
UNDP	GET	Global	Chemicals and Waste	Mercury	7,000.00	630.00	7,630.00
UNDP	GET	Sierra Leone	Chemicals and Waste	Mercury	2,000.00	180.00	2,180.00
<b>Total PPG Amount (\$)</b>					<b>300,000.00</b>	<b>27,000.00</b>	<b>327,000.00</b>

Please provide Justification

#### Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
<b>Total GEF Resources</b>					<b>0.00</b>

#### Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CW-2	GET	28,035,000.00	294489320
<b>Total Project Cost</b>		<b>28,035,000.00</b>	<b>294,489,320.00</b>

## Confirmed Co-financing for the project, by name and type

Please include evidence for each co-financing source for this project in the tab of the portal

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Tianjin Bureau of Ecology and Environment	In-kind	Recurrent expenditures	1200000
Private Sector	Great Wall Motor Co, LTD	In-kind	Recurrent expenditures	9830000
Private Sector	Great Wall Motor Co, LTD	Grant	Investment mobilized	19000000
Private Sector	Rianlon Cooperation	In-kind	Recurrent expenditures	1170000
Private Sector	Lenovo (Beijing) Co, LTD	In-kind	Recurrent expenditures	9000000
Private Sector	Lenovo (Beijing) Co, LTD	Grant	Investment mobilized	6000000
Others	Tianjin Recyclable Resources Institute, CHINA CO,OP	In-kind	Recurrent expenditures	1500000
Recipient Country Government	Ministry of Environment, Urbanization and Climate Change (MOEUCC)	Grant	Investment mobilized	35127371
Recipient Country Government	Ministry of Environment, Urbanization and Climate Change (MOEUCC)	In-kind	Recurrent expenditures	115320
Recipient Country Government	Kocaeli Metropolitan Municipality and İyaydaş-waste management company	Grant	Investment mobilized	21495800
Recipient Country Government	Kocaeli Metropolitan Municipality and İyaydaş-waste management company	In-kind	Recurrent expenditures	19938764
Private Sector	Kocaeli Chamber of Industry (KCI)	In-kind	Recurrent expenditures	234520

Recipient Country Government	Agence Nationale de Gestion des Déchets (ANGed)	In-kind	Recurrent expenditures	66000000
Recipient Country Government	Agence Nationale de Gestion des Déchets (ANGed)	Grant	Investment mobilized	20000000
Private Sector	Les Ciments Jbel Oust Company	In-kind	Recurrent expenditures	1550000
Private Sector	Les Ciments Jbel Oust Company	Grant	Investment mobilized	1650000
Recipient Country Government	Ministry of Environment	Grant	Investment mobilized	2736000
Private Sector	Chamber of Industries of Uruguay (EPR Packaging Management Plan)	Grant	Investment mobilized	35000000
Recipient Country Government	Municipality of Montevideo	In-kind	Recurrent expenditures	26180575
Recipient Country Government	Municipality of Montevideo	Grant	Investment mobilized	10610970
Private Sector	The Freetown Waste Transformers	Grant	Investment mobilized	1050000
Recipient Country Government	Freetown City Council (FCC)	Grant	Investment mobilized	2800000
Recipient Country Government	China: Tianjin Bureau of Ecology and Environment	Grant	Investment mobilized	300000
Others	Tianjin Recyclable Resources Institute, CHINA CO,OP	Grant	Investment mobilized	2000000
<b>Total Co-financing</b>				<b>294,489,320.00</b>

Please describe the investment mobilized portion of the co-financing

The following summarizes the investment mobilized as detailed in the cofinancing letters:

- Office and laboratory construction - Tianjin Recyclable Resources Institute.
- Build EPR system, the directly investments to purchase the equipment, disposal of related waste, upgrading the production line, etc. – Great Wall Motor
- Equipment to support green design and green production – Lenovo.
- EU Projects on Local Zero Waste, Marine Litter Management and Circular Economy
- PRM projects on zero waste and resources provided to municipalities by the ministry to support local zero waste practices"

- Advanced Technology Waste Disposal Facilities and equipment (Pre-treatment (such as separating recyclable materials) Biodrying, RDF Units, waste collection centers etc) Investment Cost
- Budgets of the different waste streams systems allocated to Greater Tunis including packaging systems (ECOLEf, WEEE, Lubricant Oil, Batteries, etc. and implementation of new EPRs such as Cooking oil et battery cells collection and recycling.
- Closure of dumpsites and rehabilitation.
- Investments to digitalize the administration of the waste management "
- Establishment of an RDF Platform for the preparation and automatic supply of alternative fuels, particularly CSS (solid recovered fuels)
- Landfill Closure in the Municipality of Canelones (with CH4 capture), Organic waste treatment of pig breeding in the Municipality of Montevideo and Landfill Closure - Transfer Station in the Municipality of San José.
- Landfill adaptation plan for the GHG recovery system improvement and Organic Waste Recovery Program in Montevideo.
- Recovery of beverage containers through the "Deposit, Return and Refund System". Average of 7 million per year in the 3 municipalities, out of a total of 25 million per year at the national level.
- Digital Waste Collection Toolkit, A subsidiary Waste Collection Company; Organic Waste Treatment Plant.
- Projects: 1) Productive Social Safety Net and Youth Employment (PSSNYE) - GREEN PUBLIC WORK - Funded by World Bank; 2) FCDO WASH For Health Facility - Priority :1 strengthening liquid and solid waste systems in Freetown funded by FCDO. Strengthening solid waste governance and institutions within Freetown City Council, developing sustainable business models for existing infrastructures with focus on climate resilient circular economy innovations, Enhancing food value chain to reduce waste and methane emissions, supporting inclusive capacity development initiatives and catalyzing the development of the private sector driven viable business models for waste collection, transport and recycling - including business models for hard to reach locations"

## ANNEX B: ENDORSEMENTS

### GEF Agency(ies) Certification

GEF Agency Type	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	6/28/2024	Xiaofang Zhou		xiaofang.zhou@undp.org

### Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Please attach the Operational Focal Point endorsement letter(s) with this template.

Name of GEF OFF	Position	Ministry	Date (MM/DD/YYYY)
Sabria Bnoui	GEF Operational Focal Point	Ministry of Environment (Republic of Tunisia)	5/19/2023
Robert Bouvier	Minister	Ministry of Environment (Uruguay)	4/10/2023
Sheku Mark Kanneh	Operational Focal Point, Director, Environment Protection Agency	Ministry of the Environment and Climate Change (Sierra Leone)	4/6/2023
Pradeep Kurukulasuriya	Executive Coordinator and Director - Environmental Finance	Bureau for Policy and Programme Support (BPPS)/Global Policy Network UNDP	4/11/2023

PENG Xiang	GEF Operational Focal Point	Ministry of Fiannce (China)	6/1/2023
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## ANNEX C: PROJECT RESULTS FRAMEWORK

Please indicate the page number in the Project Document where the project results and M&E frameworks can be found. Please also paste below the Project Results Framework from the Agency document.

<b>Contribution to the Sustainable Development Goal (s):</b> SDG 1 No poverty; SDG 2 Zero Hunger; SDG 3 Health and well-being; SDG 4 Quality Education; SDG 5 Gender equality; SDG 6 Clean water and sanitation; SDG 7 Affordable and clean energy; SDG 8 Decent work and economic growth; SDG 9 Industry, innovation, and infrastructure; SDG 11 Sustainable cities and communities; SDG 12 Responsible consumption and production; SDG 13 Climate Action; SDG 14 Life below water; SDG 15 Life on land; SDG 16 Peace, justice, and strong institutions; SDG 17 Partnerships for the goals.						
<b>Intended Outcome as stated in the UNSDCF/Country [or Regional] Programme Results and Resource Framework:</b>  China: UNSDCF (2021-2025): Outcome 3: People in China and the region benefit from a healthier and more resilient environment.  Uruguay: UNSDCF Outcome 1: By 2025 Uruguay promotes a transition towards sustainable production and consumption systems, based on innovation, knowledge, science and technology, strengthening resilience and equality.  Tunisia (2021-2025): In 2025, all committed actors will ensure an equitable, transparent, and sustainable management of natural resources, ecosystems, and territories by improving their territories by improving their resilience/adaptation as well as that of populations, notably the most vulnerable in the face of climate risks.  Türkiye: UNSDCF Outcome 3.1: By 2025, all relevant actors take measures to accelerate climate action, to promote responsible production and consumption, to improve the management of risks and threats to people, to ensure sustainable management of the environment and natural resources in urban and ecosystem hinterlands.  Sierra Leone: Outcome 1: By 2030, the people in Sierra Leone, especially the most vulnerable, are food and nutrition secure, resilient to the effects of climate change and equipped to prevent and respond to disasters through strong natural resource management and governance systems.						
<b>Applicable Output(s) from the UNDP Strategic Plan:</b>  China: SP outcome 2: Accelerate structural transformations for sustainable development, Output 2.4: Capacity of target government bodies enhanced to reduce environmental footprint at targeted areas.  Uruguay: Output 4.1 Natural resources protected and managed to enhance sustainable productivity and livelihoods.  Tunis: Output 4.1 Natural resources protected and managed to enhance sustainable productivity and livelihoods. /Output 4.2 Public and private investment mechanisms mobilized for biodiversity, water, oceans and climate solutions.  Türkiye: Output 4.1 Natural resources protected and managed to enhance sustainable productivity and livelihoods.  Sierra Leone: Government and community stakeholders ensure development and enforcement of laws and policies, monitoring and management systems to effectively manage waste and protect natural resources and valuable ecosystems.						
<b>Project title and Quantum Project Number:</b> Project Title: Shifting to Zero Waste Against Pollution (SWAP) Initiative. / Quantum Project Number: Will be assigned at project start.						
<b>Objective and Outcome Indicators</b>  (no more than a total of 20 indicators)	<b>Data Source</b>	<b>Baseline</b>	<b>Mid-term Target</b>	<b>End of Project Target</b>	<b>Data Collection</b>	<b>Risks/Assumptions</b>
<b>Project Objective:</b> Reduce chemical pollution in the value chain and improve resource efficiency, by supporting pilot cities in emerging economies and Least Developed Countries towards a zero-waste vision in line with green chemistry, circular economy, and waste hierarchy principles for sustainable production and consumption.						



<p><b>Mandatory Indicator 1:</b> (GEF core indicator 11) Number of direct project beneficiaries disaggregated by gender (individual people).</p>	<p>Annual report on the number of people trained and in attendance at awareness workshops, collected by and reported on by the PMU. This information would be disaggregated by gender and recorded in a project beneficiary's database.</p>		<p>Total 108,312 people.</p> <p>(54,218 women; 54,094 men)</p> <p>Tianjin: 63,604 people (31,802 W; 31,802 M)</p> <p>Montevideo: 10,755 people (5,485 W; 5,270 M)</p> <p>Kocaeli: 11,483 people (5,626 W; 5,857 M)</p> <p>Freetown: 7,005 people (3,572 W; 3,433 M)</p> <p>Tunis: 15,465 people (7,732 W; 7,733 M)</p>	<p>Total 746,091 people.</p> <p>(373,046 women; 373,045 men)[1]<sup>2</sup></p> <p>Tianjin: 438,122 people (219,061 W; 219,061 M)</p> <p>Montevideo: 74,084 people (37,783 W; 36,301 M)</p> <p>Kocaeli: 79,100 people (38,759 W; 40,341 M)</p> <p>Freetown: 48,256 people (24,610 W; 23,646 M)</p> <p>Tunis: 106,529 people (53,265 W; 53,264 M)</p>	<p>Annual report on the number of people that participate in project activities (e.g. demonstration on activities, trainings, workshops) collected by the Project Management Unit (PMU). This information would be disaggregated by gender.</p>	<p><b>Risks:</b></p> <p>Gender discrimination reproduced through limiting women to benefit from the project.</p> <p><b>Assumptions:</b></p> <p>The implementation of the gender action plan will promote the equal and fair participation of women and men in the design of innovative alternatives, benefits, and opportunities in each of its components.</p>
<p><b>Mandatory Indicator 2:</b> (GEF core indicator 6) Greenhouse Gas Emissions Mitigated (metric tons of CO<sub>2</sub>e).</p>	<p>Official records of the Implementing Partners and PMU, Project Implementation Reports.</p>	<p>-</p>	<p>Total 155,800 metric tonnes of direct CO<sub>2</sub>e mitigated.</p> <p>Tianjin: 77,326 metric tonnes CO<sub>2</sub>e mitigated.</p> <p>Montevideo: 28,720 metric tonnes CO<sub>2</sub>e mitigated.</p> <p>Kocaeli: 5,126 metric tonnes CO<sub>2</sub>e mitigated.</p> <p>Freetown: 12,372 metric tonnes CO<sub>2</sub>e mitigated.</p> <p>Greater Tunis: 32,256 metric tonnes CO<sub>2</sub>e mitigated.</p>	<p>Total 1,073,200 metric tonnes of direct CO<sub>2</sub>e mitigated.[2]<sup>3</sup></p> <p>Tianjin: 532,643 metric tonnes CO<sub>2</sub>e mitigated.</p> <p>Montevideo: 197,839 metric tonnes CO<sub>2</sub>e mitigated.</p> <p>Kocaeli: 35,307 metric tonnes CO<sub>2</sub>e mitigated.</p> <p>Freetown: 85,223 metric tonnes CO<sub>2</sub>e mitigated.</p> <p>Greater Tunis: 222,188 metric</p>	<p>Official records of Implementing Partners (IPs) and PMU.</p>	<p><b>Risks:</b></p> <p>Private stakeholders within targeted sectors are reluctant to play an active role during project execution.</p> <p>Limited capacity of national stakeholders (public and private) to effectively implement the activities within the Project.</p> <p><b>Assumptions:</b></p> <p>National and local Governments in the related countries and municipalities commits to encourage coordination among competent authorities for promoting the zero-waste strategy</p>

					tonnes CO <sub>2</sub> e mitigated.		<p>in line with green chemistry, circular economy, and waste hierarchy principles for sustainable production and consumption.</p> <p>The industry maintains a strong ambition to phase out chemicals of concerns within their processes and increase circularity of products.</p> <p>Key Stakeholders are willing to participate and receive training and capacity built in the promotion and adoption of circular solutions for prioritized waste streams and are willing to participate in their reduction and in their environmental sound management.</p>
	<p><b>Mandatory Indicator 3:</b></p> <p>(GEF core indicator 9) Chemicals of global concern and their waste reduced.</p> <p>Indicator 9.1</p> <p>Persistent Organic Pollutants (POPs) removed or disposed (POPs type) (in metric tons)</p> <p>Indicator 9.2</p> <p>Quantity of mercury reduced (in metric tons)</p> <p>Indicator 9.6</p> <p>POPs/Mercury</p>	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	<p><u>Indicator 9.1</u></p> <p><u>Total 572.195 metric tons (MT) of Persistent Organic Pollutants (POPs) removed/disposed.</u></p> <p>Tianjin:</p> <p>HBCD 108 MT</p> <p>UV-328 20 MT</p> <p>PBDE 360 MT</p> <p>MCCP 36 MT</p> <p>Montevideo:</p> <p>UV-328 4 MT</p>	<p><u>Indicator 9.1</u></p> <p><u>Total 2,470.46 metric tons of Persistent Organic Pollutants (POPs) removed/disposed.</u><sup>[3]</sup><sup>4</sup></p> <p>Tianjin:</p> <p>HBCD 432 MT</p> <p>UV-328 100 MT</p> <p>PBDE 1,440 MT</p> <p>MCCP 144 MT</p> <p>Montevideo:</p>	Official records of Implementing Partners (IPs) and PMU.	<p><u>Risks:</u></p> <p>Private stakeholders within targeted sectors are reluctant to play an active role during project execution.</p> <p>Limited capacity of national stakeholders (public and private) to effectively implement the activities within the Project.</p> <p><u>Assumptions:</u></p> <p>National and local Governments in the related countries and municipalities commits to encourage coordination among competent authorities for</p>

	containing materials and products directly avoided (in metric tons)			PBDE 1 MT	HBCD 0.2 MT		promoting the zero-waste strategy in line with green chemistry, circular economy, and waste hierarchy principles for sustainable production and consumption.
	Indicator 9.8 Avoided residual plastic waste (in metric tons).			PFOAS 8.1 MT	UV-328 30.5 MT		
					PBDE 8.9 MT		
				Kocaeli:	PFOAS 58.1 MT		
				UV-328 7.5 MT	MCCP 0.4 MT		
				PFOAS 8.5 MT			The industry maintains a strong ambition to phase out chemicals of concerns within their processes and increase circularity of products.
					Kocaeli:		
				Freetown:	UV-328 57 MT		
				UV-328 5.4 MT	PBDE 0.5 MT		
				PBDE 0.015 MT	PFOAS 62 MT		Key Stakeholders are willing to participate and receive training and capacity built in the promotion and adoption of circular solutions for prioritized waste streams and are willing to participate in their reduction and in their environmental sound management.
				PFOAS 0.27 MT	MCCP 0.02 MT		
				Tunis:	Freetown:		
				UV-328 12.4 MT	UV-328 38.7 MT		
				PBDE 0.1 MT	PBDE 0.1 MT		
				PFOAS 0.9 MT	PFOAS 1.95 MT		
				MCCP 0.01 MT	MCCP 0.01 MT		
				<u>Indicator 9.2</u>	Tunis:		
				Total 1.045 metric tons (MT) of mercury reduced.	UV-328 88.25 MT		
					PBDE 0.79 MT		
					PFOAS 7 MT		
				Tianjin: 0.1 MT	MCCP 0.04 MT		
				Montevideo: 0.9 MT			
				Freetown: 0.045 MT	<u>Indicator 9.2</u>		
				-	Total 7.5 metric tons (MT) of mercury reduced.[4] <sup>5</sup>		
				-			
				<u>Indicator 9.6</u>	Tianjin: 0.8 MT		
				Total 88,187.28 metric tons (MT) of			

				<p>POPs/Hg containing waste reduced.</p> <p>Tianjin: 79,030.94 MT</p> <p>Montevideo: 3,020.22 MT</p> <p>Kocaeli: 2,378.024 MT</p> <p>Freetown: 1,131.08 MT</p> <p>Tunis: 2,627.009 MT</p> <p><u>Indicator 9.8</u></p> <p>Total 23,710 metric tons (MT) of plastic waste avoided.</p> <p>Tianjin: 12,629 MT</p> <p>Montevideo: 2,730 MT</p> <p>Kocaeli: 2,890 MT</p> <p>Freetown: 2,048 MT</p> <p>Tunis: 3,413 MT</p>	<p>Montevideo: 6.4 MT</p> <p>Freetown: 0.3 MT</p> <p>-</p> <p>-</p> <p><u>Indicator 9.6</u></p> <p>Total 383,346.075 MT of POPs/Hg containing waste reduced.<a href="#">[5]</a><sup>6</sup></p> <p>Tianjin: 317,725.64 MT</p> <p>Montevideo: 21,644.93 MT</p> <p>Kocaeli: 17,042.509 MT</p> <p>Freetown: 8,106.09 MT</p> <p>Tunis: 18,826.898 MT</p> <p><u>Indicator 9.8</u><a href="#">[6]</a><sup>7</sup></p> <p>Total 161,268 MT of plastic waste avoided.</p> <p>Tianjin: 85,896 MT</p> <p>Montevideo: 18,572 MT</p> <p>Kocaeli: 19,656 MT</p> <p>Freetown: 13,929 MT</p>	
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					Tunis: 23,215 MT		
	<p><b>Mandatory Indicator 4:</b></p> <p>(GEF core indicator 10): Persistent organic pollutants to air reduced (gram of toxic equivalent gTEQ).</p>	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	<p>Total 17 gTEQ avoided.</p> <p>Tianjin: 6 gTEQ.</p> <p>Montevideo: 1 gTEQ.</p> <p>Kocaeli: 0.5 gTEQ</p> <p>Freetown: 5 gTEQ</p> <p>Tunis: 4.5 gTEQ</p>	<p>Total 89 gTEQ avoided. [7]<sup>8</sup></p> <p>Tianjin: 30.4 gTEQ.</p> <p>Montevideo: 5.2 gTEQ.</p> <p>Kocaeli: 2.6 gTEQ</p> <p>Freetown: 26.4 gTEQ</p> <p>Tunis: 24.4 gTEQ</p>	Official records of Implementing Partners (IPs) and PMU.	<p><b>Risks:</b></p> <p>Private stakeholders within targeted sectors are reluctant to play an active role during project execution.</p> <p>Limited capacity of national stakeholders (public and private) to effectively implement the activities within the Project.</p> <p><b>Assumptions:</b></p> <p>National and local Governments in the related countries and municipalities commits to encourage coordination among competent authorities for promoting the zero-waste strategy in line with green chemistry, circular economy, and waste hierarchy principles for sustainable production and consumption.</p> <p>The industry maintains a strong ambition to phase out chemicals of concerns within their processes and increase circularity of products.</p> <p>Key Stakeholders are willing to participate and receive training and capacity built in the promotion and adoption of circular solutions for prioritized waste streams and are willing to participate in their</p>

							reduction and in their environmental sound management.
<b>Project component 1</b>	<b>Integrated planning and programming</b>						
<b>Outcome A</b>  Zero waste framework and action plan implemented by municipalities.	<b>Indicator 5:</b>  a. Waste Management Plans developed/updated including gender considerations. (Output A.1)  b. Zero Waste Strategies developed including gender considerations. (Output A.1)  c. Zero Waste Institutional Coordination Mechanisms established, ensuring women participation. (Output A.1)	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	a. Five (5) Zero Waste Management Plans developed/updated including gender considerations:  -  Montevideo: 3  (1 Montevideo; 1 Canelones, 1 San José)  Tianjin: 1  Kocaeli: 1  Freetown: 1  Greater Tunis: 1   c. Five (5) Zero Waste Institutional Coordination Mechanisms established, ensuring women participation:  Montevideo: 1  Tianjin: 1  Kocaeli: 1  Freetown: 1  Greater Tunis: 1	b. Five (5) Zero Waste Strategies developed including gender considerations:  -  Montevideo: 1  Tianjin: 1  Kocaeli: 1  Freetown: 1  Greater Tunis: 1  -  -	Official records of Implementing Partners (IPs) and PMU.	<u>Risks:</u>  Discriminatory and economic impact on marginalized groups during development of Management Plans and Zero Waste Strategies.  Gender discrimination reproduced through limiting women's ability to contribute to decision-making.  <u>Assumptions:</u>  Waste Management Plans and Zero Waste Strategies development apply strategic Environmental and Social Assessment (SESA) principles to ensure that economic and social risks that may be associated with their implementation are considered.  The developed Stakeholder Engagement Plan (SEP) ensures participation of all stakeholders, including marginalized groups and minorities.  The implementation of the gender action plan will promote the equal and fair participation of women and men in project's activities.



	<p><b>Indicator 6:</b></p> <p>Capacity built in Municipalities measured by:</p> <p>d. Data collection and monitoring tools for the waste management value chain enhanced. (Output A.2)</p> <p>e. Government officers trained in life cycle management of chemicals and wastes related topics, and data and monitoring tools. (Output A.2)</p> <p>f. Green Procurement Guidelines developed and # of public institutions with implemented guidelines. (Output A.3)</p> <p>g. Number of policies, legal and regulatory instruments enhanced. (Output A.4)</p>	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	<p>f. Five (5) Sustainable/Green Procurement Guidelines developed.</p> <p>Montevideo: 1</p> <p>Tianjin: 1</p> <p>Kocaeli: 1</p> <p>Freetown: 1</p> <p>Greater Tunis: 1</p> <p>-</p> <p>f. Twelve (12) Public Institutions with implemented guidelines:</p> <p>-</p> <p>Montevideo: 5</p> <p>Tianjin: 1</p> <p>Kocaeli: 1</p> <p>Freetown: 1</p> <p>Greater Tunis: 4</p> <p>g. Eighteen (18) policies, legal and regulatory instruments enhanced:</p> <p>Montevideo: 3</p> <p>Tianjin: 2</p> <p>Kocaeli: 5</p> <p>Freetown: 3</p> <p>Greater Tunis: 5</p>	<p>d. Six (6) Data collection and monitoring tools for the waste management value chain enhanced.</p> <p>Montevideo: 2</p> <p>Tianjin: 1</p> <p>Kocaeli: 1</p> <p>Freetown: 1</p> <p>Greater Tunis: 1</p> <p>e. 1,205 Government officers (595 women, 610 men) trained:</p> <p>Montevideo: 60 (30 women, 30 men)</p> <p>Tianjin: 1,000 (500 women, 500 men)</p> <p>Kocaeli: 25 (10 women, 15 men)</p> <p>Freetown: 50 (20 women, 30 men)</p> <p>Greater Tunis: 70 (35 women, 35 men)</p>	Official records of Implementing Partners (IPs) and PMU.	<p><u>Risks:</u></p> <p>Companies, in particular micro, small, and medium-sized enterprises (MSME), in target sectors not involved in the decision-making on development of legislation and standards that may affect them.</p> <p>Limited capacity of national stakeholders (public and private) to effectively implement the activities within the Project.</p> <p><u>Assumptions:</u></p> <p>Governments and producers are willing to legislate, implement, regulate, and deliver based on the waste hierarchy, starting with waste prevention.</p> <p>The developed Stakeholder Engagement Plan (SEP) ensures participation of all stakeholders, including the private sector.</p> <p>Key Stakeholders, including government officers, are willing to participate and receive training and capacity built in the promotion and adoption of circular solutions for prioritized waste streams and are willing to participate in their reduction and in their environmental sound management.</p>
<b>Outputs to achieve Outcome A</b>	<p>Output A1. Waste Management Plan, Zero Waste Strategy and Governance Structure established.</p> <p>Output A2. Capacity built in cities/municipalities/institutions related to the life cycle management of chemicals and wastes.</p>						

	Output A3. Green procurement guideline developed and implemented.						
	Output A4. Policy, legal and regulatory framework to support waste management and uptake of circular economy principles improved.						
<b>Project component 2</b>	<b>Financing instruments</b>						
<b>Outcome B</b>	<b>Indicator 7:</b>	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	h. Five (5) financial strategies, including gender considerations, developed:	h. Five (5) financial instruments developed, and implemented, including gender considerations:	Official records of Implementing Partners (IPs) and PMU.	<u>Risks:</u>
Sustainable investment and financing instruments promoted.	h. Number of financial strategies and financial instruments developed, including gender considerations. (Output B.1)			Montevideo: 1			Discriminatory and economic impact on marginalized groups during development of Financial Strategies and Investment Plans.
	i. Number of investment Plans to cover city waste management and support Zero Waste Strategies developed, including gender considerations (Output B.2)			Tianjin: 1	Montevideo: 1		Limited capacity of national stakeholders (public and private) to effectively implement the activities within the Project.
				Kocaeli: 1	Tianjin: 1		
				Freetown: 1	Kocaeli: 1		
				Greater Tunis: 1	Freetown: 1		
					Greater Tunis: 1		<u>Assumptions:</u>
					i. Five (5) Investment Plans developed, including gender considerations:		Financial Strategies and Investment Plan development apply strategic Environmental and Social Assessment (SESA) principles to ensure that economic and social risks that may be associated with their implementation are considered.
					-		
					Montevideo: 1		
					Tianjin: 1		
					Kocaeli: 1		Key Stakeholders, mainly the private sector and financial institutions, are willing to participate and receive training and capacity built in the promotion and adoption of circular solutions for prioritized waste streams and are willing to participate in their reduction and in their environmental sound management.
					Freetown: 1		
					Greater Tunis: 1		A collaborative approach to policy making that is sustained and continuously

							improved, integrating gender related issues across the implementation of the proposed activities.
	<b>Indicator 8:</b>  j. Number of green finance mechanisms implemented supporting green production and consumption, and circular business. Number of MSME, social cooperatives engaged and supported to access financing. (Output B.3)  k. Number of demonstration activities for EPR schemes implemented (Output B.4)  l. Number of Replication and Scale Up Strategies developed including gender targets. (Output B.5)	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	j. Nine (9) of green finance mechanisms implemented supporting green production and consumption, and circular business:  Montevideo: 3  Tianjin: 1  Kocaeli: 1  Freetown: 2  Greater Tunis: 2	j. Seventy-five (75) of MSME, social cooperatives engaged and supported to access financing:  Montevideo: 12  Tianjin: 10  Kocaeli: 5  Freetown: 42  Greater Tunis: 6  k. Nine (9) demonstration activities for EPR schemes implemented.  - Montevideo: 2  Tianjin: 1  Kocaeli: 3  Freetown: 2  Greater Tunis: 1  - l. Five (5) Replication and Scale Up Strategies developed including gender targets:  Montevideo: 1  Tianjin: 1	Official records of Implementing Partners (IPs) and PMU.	<u>Risks:</u>  Private stakeholders within targeted sectors are reluctant to play an active role during project execution.  Potential negative impact on existing informal networks and individuals involved in the waste sector.  Gender discrimination reproduced through limiting women's ability to contribute to decision-making, participate in capacity building activities and to benefit from the project.  <u>Assumptions:</u>  Key Stakeholders, mainly the private sector and financial institutions, are willing to participate and receive training and capacity built in the promotion and adoption of circular solutions for prioritized waste streams and are willing to participate in their reduction and in their environmental sound management.  The developed Stakeholder Engagement Plan (SEP) ensures participation of all stakeholders, including marginalized groups and minorities.

					Kocaeli: 1  Freetown: 1  Greater Tunis: 1		The implementation of the gender action plan will promote the equal and fair participation of women and men in project's activities.
<b>Outputs to achieve Outcome B</b>	<p>Output B.1. Financial and Fiscal Incentives for the transition to a zero-waste city assessed.</p> <p>Output B.2. Investment plan and Public-Private Partnerships (PPP) to cover the city waste management developed.</p> <p>Output B.3. Green finance mechanisms established for supporting green production and consumption, and circular business.</p> <p>Output B.4. EPR schemes developed in key sectors with associated capacity building of stakeholder. Market for recyclables created.</p> <p>Output B.5. Replication and Scale up Strategy, <i>with associated market-oriented financial mechanisms.</i></p>						
<b>Project component 3</b>	<b>Sustainable production and consumption and material management</b>						
<b>Outcome C</b>  Enhanced sustainable production and consumption through clean production Certifications and eco-labelling of sustainable products and services.	<p><b>Indicator 9:</b></p> <p>m. Number of existing processes of waste treatment and disposal upgraded. (Output C.1)</p> <p>n. Number of assessments conducted on unsustainable production sectors. (Output C.1)</p> <p>o. Number of demonstration activities for cleaner production, circular business models, and phase out chemicals of concern (Output C.2)</p> <p>■</p> <p>■</p>	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	<p>n. Six (6) of assessments conducted on unsustainable production sectors.</p> <p>Montevideo: 1</p> <p>Tianjin: -</p> <p>Kocaeli: 3</p> <p>Freetown: 1</p> <p>Greater Tunis: 1</p> <p>■</p>	<p>m. Eleven (11) of existing processes of treatment and disposal upgraded:</p> <p>Montevideo: 3</p> <p>Tianjin: 1</p> <p>Kocaeli: 3</p> <p>Freetown: 2</p> <p>Greater Tunis: 2</p> <p>o. Eighteen (18) demonstration activities for cleaner production, circular business models, and phase out chemicals of concern:</p> <p>Montevideo: 8</p> <p>Tianjin: 1</p> <p>Kocaeli: 5</p>	Official records of Implementing Partners (IPs) and PMU.	<p><u>Risks:</u></p> <p>Private stakeholders within targeted sectors are reluctant to play an active role during project execution.</p> <p>Potential negative impact on existing informal networks and individuals involved in the waste sector.</p> <p>Gender discrimination reproduced through limiting women's ability to contribute to decision-making, participate in capacity building activities and to benefit from the project.</p> <p><u>Assumptions:</u></p> <p>Key Stakeholders, mainly the private sector, are willing to participate and receive training and capacity built in the promotion and adoption of circular solutions for prioritized waste streams and are willing to participate in their reduction and in their</p>

					Freetown: 2  Greater Tunis: 2		environmental sound management.  The developed Stakeholder Engagement Plan (SEP) ensures participation of all stakeholders, including marginalized groups and minorities.  The implementation of the gender action plan will promote the equal and fair participation of women and men in project's activities.
	<p><b>Indicator 10:</b></p> <p>p. Number of demonstration activities to increase reuse and recycling of materials and circular business models developed and implemented (Output C.3)</p> <p>q. Number of demonstration activities to foster sustainable consumption (Output C.4)</p>	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	-	<p>p. Twelve (12) demonstration activities to increase reuse and recycling of materials and circular business models developed and implemented:</p> <p>Montevideo: 4</p> <p>Tianjin: 1</p> <p>Kocaeli: 2</p> <p>Freetown: 3</p> <p>Greater Tunis: 2</p> <p>q. Five (5) demonstration activities to foster sustainable consumption:</p> <p>Montevideo: 1</p> <p>Tianjin: 1</p> <p>Kocaeli: 1</p>	<p>Official records of Implementing Partners (IPs) and PMU.</p>	<p><u>Risks:</u></p> <p>Private stakeholders and local communities within targeted sectors are reluctant to play an active role during project execution towards sustainable production and consumption.</p> <p>Potential negative impact on existing informal networks and individuals involved in the waste sector.</p> <p>Gender discrimination reproduced through limiting women's ability to contribute to decision-making, participate in capacity building activities and to benefit from the project.</p> <p><u>Assumptions:</u></p> <p>The developed Stakeholder Engagement Plan (SEP) ensures participation of all stakeholders, including marginalized groups and minorities.</p>

					Freetown: 1  Greater Tunis: 1		<p>The implementation of the gender action plan will promote the equal and fair participation of women and men in project's activities.</p> <p>Key stakeholders, including private sector and local communities (including vulnerable groups), are willing to participate in the implementation of activities and are motivated for behavior change around waste reduction and waste segregation.</p>
<b>Outputs to achieve Outcome C</b>	<p>Output C.1. "hotspot" sectors of unsustainable consumption and production assessed and associated circular economy opportunities identified.</p> <p>Output C.2. Capacity built in industries, designers, and producers based on green chemistry and circularity principles, and demonstration of cleaner production to design/phase out chemicals of concern and waste.</p> <p>Output C.3. Feasibility studies and piloting activities carried out to increase recycling and reuse of materials in key value chains. Circular business models developed.</p> <p>Output C.4 Demonstration activities on innovative tools to foster sustainable consumption in public and private sectors, and consumers.</p>						
<b>Project component 4</b>	<b>Training, education, advocacy, and evaluation at city and national level</b>						
<b>Outcome D</b>  Lessons learned captured and disseminated, awareness raised, and project results monitored.	<p><b>Indicator 11:</b></p> <p>r. Number of people awareness raised to encourage behavioral change. (Output D.1)</p> <p>s. Number of cities engaged in SWAP knowledge and experiences exchanged. (Output D.3)</p>	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	<p>r. 18,560 people (9,292 women, 9,268 men) awareness raised to encourage behavioral change:</p> <p>Montevideo: 800 (400 women, 400 men)</p> <p>Tianjin: 16,000 (8,000 women, 8,000 men)</p> <p>Kocaeli: 680 (392 women, 288 men)</p> <p>Freetown: 480 (200 women, 280 men)</p>	<p>r. 45,200 people (23,230 women, 21,970 men) awareness raised to encourage behavioral change:</p> <p>Montevideo: 2,000 (1,000 women, 1,000 men)</p> <p>Tianjin: 40,000 (20,000 women, 20,000 men)</p> <p>Kocaeli: 1,700 (980 women, 720 men)</p> <p>Freetown: 1,200 (500 women, 700 men)</p> <p>Greater Tunis: 1,500 (750 women, 750 men)</p>	Official records of Implementing Partners (IPs) and PMU.	<p><u>Risks:</u></p> <p>Gender and marginalized groups discrimination reproduced through limiting their participation in the project and benefiting from its Outcomes.</p> <p><u>Assumptions:</u></p> <p>The implementation of the gender action plan will promote the equal and fair participation of women and men in project's activities.</p> <p>Local communities, including vulnerable groups, are willing to participate in the</p>

				Greater Tunis: 600 (300 women, 300 men)	s. 50 cities engaged in SWAP knowledge and experiences exchanged:  Montevideo: 10  Tianjin: 10  Kocaeli: 10  Freetown: 10  Greater Tunis: 10		implementation of activities and are motivated for behavior change around waste reduction and waste segregation.  The developed Stakeholder Engagement Plan (SEP) ensures participation of all stakeholders, including marginalized groups and minorities.
	<b>Indicator 12:</b>  t. Capacity building programme for the informal sector developed and implemented. Number of informal workers trained. (Output D.2)	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	Five (5) Capacity building programme for the informal sector developed:  Montevideo: 1  Tianjin: 1  Kocaeli: 1  Freetown: 1  Greater Tunis: 1	1,733 informal workers (762 women, 971 men) trained:  Montevideo: 583 (262 women, 321 men)  Tianjin: 500 (250 women, 250 men)  Kocaeli: 100 (25 women, 75 men)  Freetown: 400 (150 women, 250 men)  Greater Tunis: 150 (75 women, 75 men)	Official records of Implementing Partners (IPs) and PMU.	<u>Risks:</u>  Gender and marginalized groups discrimination reproduced through limiting their participation in the project and benefiting from its Outcomes.  <u>Assumptions:</u>  The implementation of the gender action plan will promote the equal and fair participation of women and men in project's activities.  Local communities, including vulnerable groups, are willing to participate in the implementation of activities and are motivated for behavior change around waste reduction and waste segregation.  The developed Stakeholder Engagement Plan (SEP) ensures participation of all stakeholders, including marginalized groups and minorities.
<b>Outputs to achieve Outcome D</b>	Output D.1. Communication strategy implemented and awareness raised to encourage behaviour change.  Output D.2. Technical Assessment of informal sector integration and formalization.						



	Output D.3. Experiences exchanged at city networks for scale-up of good practices in other cities of the country and region.						
<b>Project component 5</b>	<b>Coordination, communication, technical assistance at global level</b>						
<b>Outcome E</b>  Clearing house on Zero Waste operated.	<b>Indicator 13:</b>  Zero Waste best practices, learnings and knowledge exchanged measured by:  u. Number of webinars conducted in key SWAP related topics. (Output E1)  v. Number of Study Tours organized and carried out. (Output E1)  w. Number of International and Regional Workshops carried out. (Output E2)  x. SWAP Knowledge Management Platform developed. (Output E2)	Official records of the Implementing Partners and PMU, Project Implementation Reports.	-	u. At least four (4) webinars conducted.  v. At least one (1) Study Tour carried out.  w. At least two (2) International and Regional Workshops carried out.  x. SWAP Knowledge Management Platform developed.	u. At least ten (10) webinars conducted.  v. At least three (3) Study Tour carried out.  w. At least five (5) International and Regional Workshops carried out.	Official records of UNDP.	<u>Risks:</u>  Gender discrimination reproduced through limiting women's ability to contribute to decision-making, participate in capacity building activities and to benefit from the project.  <u>Assumptions:</u>  Participation in Global activities would foster improvement during the implementation phase, knowledge exchange, and assisting in the development of innovative demonstration approaches and testing for other similar implementations elsewhere after the project's completion.  The implementation of the gender action plan will promote the equal and fair participation of women and men in the design of innovative alternatives, benefits, and opportunities in each of its components.
<b>Outputs to achieve Outcome E</b>	Output E1: Technical and finance advice to the municipalities for the development and implementation of zero waste strategy provided.  Output E2: Global Zero Waste City Finance Platform and Zero Waste Partnerships strengthened.						
<b>Project component</b>	<b>Monitoring &amp; Evaluation</b>						
<b>Outcome F</b>  M&E and adaptive management	<b>Indicator 14:</b>  Project level monitoring and evaluation	Inception Workshop Report  Annual GEF Project	-	- Inception Workshop  - Two (2) GEF Project Implementation	- Five (5) GEF Project Implementation	Review of reports generated by the project's monitoring and	<u>Risks:</u>  Limited capacity in project monitoring.

applied to assess activity performance and GEB impact.	completed, measured by:	Implementation Report (PIR)		Reviews (PIR) completed.	Reviews (PIR) completed.	evaluation plan.	<u>Assumptions:</u>
	<ul style="list-style-type: none"> <li>- Inception Workshop</li> <li>- Annual GEF Project Implementation Reviews (PIR),</li> <li>- M&amp;E of GEF core Indicators, Gender Plan, Safeguards Frameworks and Action Plans.</li> <li>- Mid-term Review (MTR)</li> <li>- Terminal Evaluation (TE).</li> </ul>	<ul style="list-style-type: none"> <li>Board meeting reports.</li> <li>M&amp;E reports of GEF core indicators</li> <li>Reports of gender, stakeholder participation and ESMF monitoring</li> <li>Independent Mid-Term Review</li> <li>Independent Terminal Evaluation</li> </ul>		<ul style="list-style-type: none"> <li>- Two (2) updates of GEF core indicators, gender plan, and ESMF completed.</li> <li>- MTR completed.</li> </ul>	<ul style="list-style-type: none"> <li>- Final updates of GEF core indicators, gender plan, and ESMF.</li> <li>- TE completed.</li> </ul>	PIR, MTR, TE.	Global coordination and planned periodic monitoring and follow-up activities as well as a comprehensive reporting during the MTR, may early identified possible deviations from the programmed actions.
	<b>Indicator 15:</b>	UNDP Expenditures as reported in Quantum.				External financial audit retained by UNDP	<u>Risks:</u>
	Percentage of project expenditure spent on the FSP planned activities.		-	40%	100%		Impacts due to fluctuations in credit rate, market and currency that may affect project total budget.  <u>Assumptions:</u>  Global Coordination and periodic monitoring of national and global budgets ensure timely mitigation of impacts, to guarantee the successful completion of the proposed activities and achievement of outcomes, by the end of project.
<b>Outputs to achieve Outcome F</b>	Output F.1. M&E and adaptive management applied to assess activity performance and GEB impact.						

[1] The total amount will arise to 4,902,565 people (W 2,476,271; M 2,426,394) five (5) years after project implementation. (Tianjin: 2,878,900 people (1,439,450 W; 1,439,450 M); Montevideo: 486,808 people (256,593 W; 230,215 M); Kocaeli: 519,768 people (257,082 W; 262,868 M); Freetown: 317,089 people (161,871 W; 155,318 M); Tunis: 700,000 people (350,000 W; 350,000 M))

[2] The total amount will arise to 7,052,000 metric tonnes of direct CO<sub>2e</sub> emissions avoided five (5) years after project implementation. (Tianjin: 3,500,000 metric tonnes of CO<sub>2e</sub>; Montevideo: 1,300,000 metric tonnes of CO<sub>2e</sub>; Kocaeli: 232,000 metric tonnes of CO<sub>2e</sub>; Freetown: 560,000 metric tonnes of CO<sub>2e</sub>; Greater Tunis: 1,460,000 metric tonnes of CO<sub>2e</sub>). After 10 years of project completion 2,954,262 metric tonnes of indirect CO<sub>2e</sub> emissions will be avoided (Tianjin: 1,929,311 metric tonnes of CO<sub>2e</sub>; Montevideo: 364,047 metric tonnes of CO<sub>2e</sub>; Kocaeli: 63,856 tonnes of CO<sub>2e</sub>; Freetown: 189,840 tonnes of CO<sub>2e</sub>; Tunis: 407,208 tonnes of CO<sub>2e</sub>)

[3] The total amount will arise to 8,089.918 metric tons of Persistent Organic Pollutants (POPs) removed/disposed five (5) years after project implementation. (Tianjin: HBCD 1,359 MT – UV-328 500 MT – PBDE 4,530 MT – MCCP 45.3 MT / Montevideo: HBCD 1.1 MT – UV-328 141.8 MT – PBDE 41.6 MT – PFOAS 270.3 MT – MCCP 2 MT / Kocaeli: UV-328 265 MT – PBDE 2.5 MT – PFOAS 288.9 MT – MCCP 0.1 MT / Freetown: UV-328 180.3 MT – PBDE 0.5 MT – PFOAS 9.1 MT – MCCP 0.02 MT / Tunis: UV-328 415.2 MT – PBDE 3.6 MT – PFOAS 32.9 MT – MCCP 0.2 MT.)

[4] The total amount will arise to 31.557 metric tons of mercury reduced five (5) years after project implementation. (Tianjin: 0.06 MT / Montevideo: 30 MT / Freetown: 1.5 MT)

[5] The total amount will arise to 1,310,558.988 metric tons of POPs/Mercury containing materials and products directly avoided five (5) years after project implementation. (Tianjin: 1,005,347.663 MT / Montevideo: 100,674.11 MT / Kocaeli 79,267.483 MT / Freetown 37,702.76 MT / Tunis 87,566.968 MT)

[6] The total amount will arise to 1,042,000 MT of plastic waste avoided five (5) years after project implementation. (Tianjin: 555,000 MT / Montevideo: 120,000 MT / Kocaeli 127,000 MT / Freetown: 90,000 MT / Kocaeli 150,000 MT)

[7] The total amount will arise to 457 gTEQ avoided five (5) years after project implementation. (Tianjin: 156 gTEQ / Montevideo: 27 gTEQ / Kocaeli 14 gTEQ / Freetown: 135 gTEQ / Tunis 125 gTEQ)

## ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)

Provide detailed funding amount of the PPG activities financing status in the table below:

Project Preparation Activities Implemented	GETF/LDCF/SCCF Amount (\$)		
	Budgeted Amount	Amount Spent To date	Amount Committed
Component A: Preparatory Technical Studies & Reviews	60,000.00	60,000.00	0.00
Component B: Formulation of the UNDP-GEF Project Document, CEO Endorsement Request, and Mandatory and Project Specific Annexes	140,000.00	140,000.00	0.00
Component C: Validation Workshop and Report	70,000.00	7,235.25	62,764.75
Component D: Finalisation of documents for internal review and to the GEF; adjustments in response to internal review	30,000.00	0.00	30,000.00
<b>Total</b>	<b>300,000.00</b>	<b>207,235.25</b>	<b>92,764.75</b>

## ANNEX E: PROJECT MAP AND COORDINATES

Please provide geo-referenced information and map where the project interventions will take place

Location Name	Latitude	Longitude	GeoName ID
Tianjin – China	39.14222	117.17667	1,792,947

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Freetown – Sierra Leone	8.48714	-13.2356	2,409,306

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Tunis – Tunisia	36.81897	10.16579	2,464,470

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Kocaeli - Türkiye	40.91667	29.91667	742,865

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Montevideo - Uruguay	-34.825	-56.200	3,441,572

Location Description:

Activity Description:

Please provide any further geo-referenced information and map where project interventions are taking place as appropriate.

## ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

Attach agency safeguard datasheet/assessment report(s), including ratings of risk types and overall project/program risk classification as well as any management plans or measures to address identified risks and impacts (as applicable).

Title

China\_SWAP\_ESMF-26 04 2024  
 China\_SWAP\_SESP-16 04 2024 Comments from Windy Zhang LB  
 Sierra Leone\_SWAP\_ESMF-23 04 2024  
 Sierra Leone\_SWAP\_SESP-23 04 2024  
 Tunisia\_SWAP\_ESMF-26 04 2024  
 Tunisia\_SWAP\_SESP-26 04 2024  
 Turkey\_SWAP\_ESMF-23 04 2024  
 Turkey\_SWAP\_SESP-23 04 2024  
 Uruguay\_SWAP\_ESMF-23 04 2024  
 Uruguay\_SWAP\_SESP-23 04 2024

## ANNEX G: BUDGET TABLE

Please upload the budget table here.

Expenditure Category	Detailed Description	Component (USDeq.)								Total (USDeq.)	Responsible Entity <a href="#">(Executing Entity receiving funds from the GEF Agency)</a> [1]
		Component 1	Component 2	Component 3	Component 4	Component 5	Sub-Total	M&E	PMC		
		Outcome A	Outcome B	Outcome C	Outcome D	Outcome E					
Equipment and Furniture	Equipment for Strengthening of the packaging traceability system		25000				25000			25000	UNDP Uruguay
	Required machinery, equipment and other necessities for Output B2, B3 (Equipments to promote the transformation of production processes), B4 (EPR schemes)		333000				333000			333000	UNDP Türkiye
	Machinery, equipment and other necessities for the pilot implementations in Outputs C1, Output C2, Output C3, Output C4			1682000			1682000			1682000	UNDP Türkiye
	Materials, equipment, tools and items to support the necessary training - Output D1				54220		54220			54220	UNDP Türkiye
	IT Equipment for the PMU						0		19250	19250	UNDP Türkiye
	Deposit Return equipment/machines		150000				150000			150000	UNDP Tunisia

	Composting Equipment; Equipment for the WEEE repair center			565000			565000			565000	UNDP Tunisia
	Sorting at source equipment				235008		235008			235008	UNDP Tunisia
	IT Equipment for the PMU						0		15000	15000	UNDP Tunisia
	Required machinery and equipment for the demonstration activities - cleaner production and circular business models			672409			672409			672409	EPA
	Required machinery and equipment for the demonstration activities - sustainable consumption			38000			38000			38000	FCC
	...						0			0	
<b>Materials and Goods</b>	Materials to support communication and coordination activities	3000					3000			3000	FECO
	Materials to support communication and coordination activities		3000				3000			3000	FECO
	Materials to support communication and coordination activities			1000			1000			1000	FECO
	Materials to support M&E activities						0	3300		3300	FECO
	Laboratory cost to analyse the RDF composition different scenarios and controle of emissions.			60000			60000			60000	UNDP Tunisia
							0			0	
							0			0	
							0			0	
<b>Contractual Services – Individual</b>	Technical coordinator of outputs within Comp. 3			90000			90000			90000	FECO
	Project Manager	56192	56192	56192	18731		187307			187307	UNDP Türkiye
	Project Associate	40722	40722	40722	13574		135740			135740	UNDP Türkiye
	Waste Regulation Expert	23980	10192	1798			35970			35970	UNDP Türkiye
	Waste Management Expert	59235	31592	7898			98725			98725	UNDP Türkiye
	M&E Officer						0	98725		98725	UNDP Türkiye
	Project Assistant				28722		28722		67018	95740	UNDP Türkiye
	Procurement Officer						0		77106	77106	UNDP Türkiye
	Projects Imp Adm						0		74298	74298	
	Individual expert for Replication and Scale Up strategy		129118				129118			129118	UNDP Tunisia
	M&E Officer						0	116505		116505	UNDP Tunisia
	Project Manager			48119	13748		61867		27496	89363	UNDP Tunisia
	Project Associate						0		73675	73675	UNDP Tunisia
	IC- Capacity built in cities/municipalities/instit	30000					30000			30000	FCC

	utions related to the life cycle management										
	IC-Support Freetown City Council to increase its source revenue generation; investment plan and PPP business case for Freetown		17000				17000			17000	FCC
	IC- Technical coordination and assistance for the development of a demonstration activities			35000			35000			35000	FCC
	Project Coordinator				5000		5000	80500		85500	FCC
	IC- to support Output A2	10000					10000			10000	EPA
	IC- to support Output B1, B4, B5		28000				28000			28000	EPA
	IC- to support Output C1,C2,C3			17500			17500			17500	EPA
	M&E officer						0	75000		75000	EPA
	Project Assistant						0		182500	182500	EPA
	Project Assistant						0		271500	271500	UNDP C&W Hub
	Project finance and procurement assistant						0		111565	111565	UNDP Uruguay
<b>Contractual Services – Company</b>	To support: Work Programme development for the Zero Waste construction; development of 'one network' platform for solid waste management information and system implementation; green procurement guidelines and the completion green procurement certificate; preparation of Technical guideline on the environmentally sound management of wastes	530000					530000			530000	FECO
	To support: Investment plan development, green finance policy, Research on EPR-related policy standards, demonstration activities vehicle industries, ESMP development; Replication and Scale Up Strategy		973000				973000			973000	FECO
	To support: demonstration activities implementation within Output C1, C2, C3 and C4			2078000			2078000			2078000	FECO
	To support: publicity for communication activities, training for informal waste recycling; knowledge and experience exchange with cities				341700		341700			341700	FECO
	Performance evaluation						0	40000		40000	FECO
	To support the development of the municipal waste management module of the Single Integrated	100000					100000			100000	UNDP Uruguay



	Waste Information System										
	To support: Adapt taxation instruments, Business incubator program, microfinance programme, Demonstration projects (including targeted assessments, ESMP), economic studies development.		745000				745000			745000	Ministry of Environment Uruguay
	To support: Develop strategies to increase organic waste processing capacity, Call for proposals to support business models, demonstration activities (including targeted assessments, ESMP), certification mechanisms.			2239527			2239527			2239527	Ministry of Environment Uruguay
	To support the exchange of experiences and knowledge.				31372		31372			31372	Ministry of Environment Uruguay
	To support: feasibility analysis and assessment of the activities defined within Outputs B1 and B2; Definition of facility design and equipment to be installed; provision of technical support and technology transfer to the municipalities in Output B2; develop financing models for the circular business; develop Extended Producer Responsibility (EPR) schemes supporting recyclable market creation.		275000				275000			275000	UNDP Türkiye
	To support: life cycle analysis, identification of negative environmental impacts, and design of technology improvements in industrial and disposal facilities; feasibility analysis and assessment of each of the alternatives defined within Outputs C3; definition of plant design and equipment to be installed; provision of technical support and technology transfer to the municipalities; develop tools that foster sustainable consumption			350000			350000			350000	UNDP Türkiye

To support: provide technical assistance services for Output A1; to design and implement a capacity building program on the regional waste management plan, chemicals and waste international conventions, waste treatment and recovery technologies; Green procurement guidelines development; Policy and regulatory framework	653400					653400			653400	UNDP Tunisia
To support: investment plan development, green finance mechanisms implementation; deposit/return scheme design and implementation		672900				672900			672900	UNDP Tunisia
To support: assess and identify hot spots of unsustainable production (textile and automotive); RDF assessment; demonstration activity in textile to phase out chemicals of concern; enhance EE equipment circularity; zero waste programme in touristic sector			1224000			1224000			1224000	UNDP Tunisia
To support: communication demonstration activities and capacity building programme to informal workers				216600		216600			216600	UNDP Tunisia
To support: feasibility studies for the development of the relevant Baseline assessment, Waste Management RoadMap; Green Procurement, Assessment of existing fire extinguishers and provide recommendation	30000					30000			30000	EPA
To support: Mapping and Evaluation of the implementation and impact of existing fiscal and financial incentives; Develop and implement an EPR mechanism for plastics packaging under EPR schemes; Replication and Scale-up Strategy		383250				383250			383250	EPA
To support: services to support the development of targeted assessments as per ESMF in demonstration activities			120000			120000			120000	EPA
To support: Establishment of Zero waste school clubs				60000		60000			60000	EPA
To support: development of a	3000					3000			3000	FCC

	community-based waste management plan										
	To support: upport Freetown City Council to increase its source revenue generation to finance		334438				334438			334438	FCC
	To support: Upgrade existing treatment and disposal facilities; ESIs development; plastics packaging production processes; Zero waste certification for 30 entertainment spots			1242454			1242454			1242454	FCC
	To support: communication strategy; Design and implementation of a capacity-building program - informal workers				70000		70000			70000	FCC
	To support: development of zero waste strategy and action plan	6372					6372			6372	MOECC
	To support the development and maintenance of the Knowledge platform (Output E2)					11000	11000			11000	UNDP C&W Hub
International Consultants	Initial advisory, technical support and oversight			50000			50000			50000	FECO
	2 IC to support: updating and development of the Waste Management Systems; technical support to plan hazardous chemicals and waste management; technical and financial support for the financial mechanisms	56000					56000			56000	UNDP Türkiye
	IC to support Outputs B1, B2, B4		38500				38500			38500	UNDP Türkiye
	IC to support Outputs C2, C3			52500			52500			52500	UNDP Türkiye
	IC to support Outputs D2				17500		17500			17500	UNDP Türkiye
	Gender and safeguards specialist						0	56000		56000	UNDP Türkiye
	Circular economy expert to support study tours and field visits				4500		4500			4500	UNDP Tunisia
	IC to support Output E1 activities					553500	553500			553500	Avfal Sverige
	Gender and safeguards specialist					225000	225000			225000	UNDP C&W Hub
	Communication and KM specialist					418500	418500			418500	UNDP C&W Hub
	1 Technical Expert - EPR schemes					87125	87125			87125	UNDP C&W Hub
	1 Technical Expert - Plastics Management					87125	87125			87125	UNDP C&W Hub
	1 Procurement Specialist					69750	69750			69750	UNDP C&W Hub

	1 Finance Specialist					570000	570000			570000	UNDP C&W Hub
	IC for MTR						0	65000		65000	UNDP C&W Hub
	IC for TE						0	75000		75000	UNDP C&W Hub
<b>Local Consultants</b>	1 EPR specialist	27500					27500			27500	FECO
	1 financial expert		30000				30000			30000	FECO
	1 sustainable production and consumption expert			100000			100000			100000	FECO
	1 Social and Environmental Specialist + 1 Gender and stakeholder consultant						0	75000		75000	FECO
	3 consultants to support activities within Component 1 Outputs	368298					368298			368298	Ministr y of Environm ent Uruguay
	1 consultant to support the Strategic plan for the development and feasibility analysis of industrial parks		50000				50000			50000	UNDP Uruguay
	5 consultants to support activities within Component 2 Outputs		184392				184392			184392	Ministr y of Environm ent Uruguay
	2 consultants to support Output C1 activities			110000			110000			110000	UNDP Uruguay
	2 consultants to support Output C1 and C3 activities			107000			107000			107000	Ministr y of Environm ent Uruguay
	2 consultants to support Output D1 and D2 activities				280000		280000			280000	UNDP Uruguay
	1 consultant to support Output D2 activities				40000		40000			40000	Ministr y of Environm ent Uruguay
	M&E specialist						0	126000		126000	Ministr y of Environm ent Uruguay
	Project Assistant						0		84000	84000	Ministr y of Environm ent Uruguay
	Project Manager	55000					55000	82500	45834	183334	Ministr y of Environm ent Uruguay
	Local consultants to support Output A1, A2, A3, A4	76000					76000			76000	UNDP Türkiye
	Local consultants to support Output B1, B2, B3, B4, B5		98000				98000			98000	UNDP Türkiye

	Local consultants to support Output C1, C2, C3, C4			92000			92000			92000	UNDP Türkiye
	Local consultants to support Output D1, D2				16000		16000			16000	UNDP Türkiye
	Local consultant to support Output A4	7500					7500			7500	UNDP Tunisia
	Local consultant to support Output B5		7500				7500			7500	UNDP Tunisia
	Local consultant to support Output C4			7500			7500			7500	UNDP Tunisia
	Local consultants to support Output A1, A2, A3, A4	95000					95000			95000	EPA
	Local consultants to support Output B1,B4,B5		52500				52500			52500	EPA
	Local consultants to support Output C1,C2,C3			61500			61500			61500	EPA
	MTR and TE consultants						0	15000		15000	EPA
	Gender and safeguards specialist						0		12500	12500	EPA
	Local consultants to support Output A1, A2, A4	42500					42500			42500	FCC
	Local consultants to support B2,B3		24000				24000			24000	FCC
	Local consultants to support C1,C3			27820			27820			27820	FCC
	Local consultants to support Output A1, A2, A4	57000					57000			57000	MOECC
	Local consultant to support Output D1				20000		20000			20000	WONES
<b>Salary and benefits / Staff costs</b>	Project Coordinator						0		232000	232000	FECO
	Project Manager						0		650000	650000	UNDP C&W Hub
	Procurement Analyst						0		54349	54349	UNDP Tunisia
	Finance Associate						0		54359	54359	UNDP Tunisia
<b>Training, Workshops, Meetings</b>	Training, workshops and meetings to support Component 1 Outputs	17500					17500			17500	FECO
	Training, workshops and meetings to support Component 2 Outputs		14000				14000			14000	FECO
	Training, workshops and meetings to support Component 3 Outputs			9000			9000			9000	FECO
	Inception Workshop ; Annual review meetings; Technical exchange meeting						0	47500		47500	FECO
	Training, workshops and meetings to support Component 1 Outputs	80000					80000			80000	Ministry of Environment Uruguay
	Training, workshops and meetings to support Component 2 Outputs		20000				20000			20000	Ministry of Environment Uruguay

	Training, workshops and meetings to support Component 3 Outputs			8000			8000			8000	Ministry of Environment Uruguay
	Training, workshops and meetings to support Output D1 activities				10000		10000			10000	Ministry of Environment Uruguay
	Inception Workshop; Annual meetings						0	12000		12000	UNDP Uruguay
	Training, workshops and meetings to support Component 1 Outputs	219887					219887			219887	UNDP Türkiye
	Training, workshops and meetings to support Component 2 Outputs		95000				95000			95000	UNDP Türkiye
	Training, workshops and meetings to support Component 3 Outputs			120000			120000			120000	UNDP Türkiye
	Training, workshops and meetings to support Component 4 Outputs				130000		130000			130000	UNDP Türkiye
	Inception Workshop; Annual meetings						0	50000		50000	UNDP Türkiye
	Training, workshops and meetings to support Component 1 Outputs	73500					73500			73500	UNDP Tunisia
	Training, workshops and meetings to support Component 2 Outputs		163000				163000			163000	UNDP Tunisia
	Training, workshops and meetings to support Component 3 Outputs			73200			73200			73200	UNDP Tunisia
	Training, workshops and meetings to support Component 4 Outputs				57500		57500			57500	UNDP Tunisia
	Inception Workshop; Annual meetings						0	42000		42000	UNDP Tunisia
	Training, workshops and meetings to support Component 1 Outputs	101000					101000			101000	EPA
	Training, workshops and meetings to support Component 2 Outputs		68000				68000			68000	EPA
	Training, workshops and meetings to support Component 3 Outputs			49930			49930			49930	EPA
	Training, workshops and meetings to support Component 4 Outputs				40000		40000			40000	EPA
	Inception Workshop; Annual meetings						0	25000		25000	EPA
	Training, workshops and meetings to support Component 1 Outputs	65128					65128			65128	MOECC
	Training, workshops and meetings to support Component 1 Outputs	61000					61000			61000	FCC
	Training, workshops and meetings to support Component 2 Outputs		51495				51495			51495	FCC
	Training, workshops and meetings to support Component 3 Outputs			47100			47100			47100	FCC
	Training, workshops and meetings to support Component 4 Outputs				85000		85000			85000	WONES

	Training, workshops and meetings to support Component 4 Outputs				10000		10000			10000	FCC
	Training to support the implementation of the Study Tours and webinars within Output E1					17750	17750			17750	Avfal Sverige
	Training to support Sustainable Procurement at municipal level within Output E2					44000	44000			44000	UNDP C&W Hub
<b>Travel</b>	Travel to support Component 1 Outputs	22000					22000			22000	FECO
	Travel to support Component 2 Outputs		10000				10000			10000	FECO
	Travel to support Component 3 Outputs			12000			12000			12000	FECO
	Travel to support Component 4 Outputs				22000		22000			22000	FECO
	Field visits and Annual Global SWAP meetings participation						0	170000		170000	FECO
	Annual Global SWAP meetings participation						0	28512		28512	UNDP Uruguay
	Field visits						0		6000	6000	Ministry of Environment Uruguay
	Travel to support Component 1 Outputs	39155					39155			39155	UNDP Türkiye
	Travel to support Component 2 Outputs		25064				25064			25064	UNDP Türkiye
	Travel to support Component 3 Outputs			37416			37416			37416	UNDP Türkiye
	Travel to support Component 4 Outputs				46625		46625			46625	UNDP Türkiye
	Field visits - M&E activities						0	34294		34294	UNDP Türkiye
	Study tours participation			60000			60000			60000	UNDP Tunisia
	Travels to support exchange of good practices, experience and lessons exchange.				100000		100000			100000	UNDP Tunisia
	Participation in Annual Global SWAP meetings						0	15000		15000	UNDP Tunisia
	Travel to support Output B4		1250				1250			1250	EPA
	Travel to support Output C1			1250			1250			1250	FCC
	Travel to support Output D4				29514		29514			29514	FCC
	Travel to support Output C2,C3			2500			2500			2500	EPA
	Field visits - M&E activities						0	10000		10000	EPA
	Travel to support Output E1 activities (Participation in annual workshops + Study Tours)					41750	41750			41750	Avfal Sverige
	Travel to support Output E2 activities (Participation in annual workshops + Sustainable Procurement support)					262000	262000			262000	UNDP C&W Hub
	Travel to support PMU visiting cities						0		37500	37500	UNDP C&W Hub
<b>Office Supplies</b>	Supplies						0	7500		7500	FECO



	Office Supplies						0		5000	5000	Ministr y of Environm ent Uruguay
	Supplies						0		1833	1833	UNDP Türkiye
	Supplies						0	28451	11830	40281	EPA
<b>Other Operating Costs</b>	Audio Visual & Print Prod Costs - Translation costs (MTR/TE)						0	26000		26000	FECO
	Professional Services- Audit fee						0		25000	25000	FECO
	Professional Services- Audit fee						0		5000	5000	UNDP Uruguay
	Audio Visual & Print Prod Costs to support Component 1 activities	42014					42014			42014	UNDP Türkiye
	Audio Visual & Print Prod Costs to support Component 2 activities		21130				21130			21130	UNDP Türkiye
	Audio Visual & Print Prod Costs to support Component 3 activities			24000			24000			24000	UNDP Türkiye
	Audio Visual & Print Prod Costs to support Component 4 activities				36000		36000			36000	UNDP Türkiye
	Audio Visual & Print Prod Costs to support Inception Workshop						0	10000		10000	UNDP Türkiye
	Professional Services- Audit fee						0		8000	8000	UNDP Türkiye
	Audio Visual & Print Prod Costs to support Component 1 activities	4500					4500			4500	UNDP Tunisia
	Audio Visual & Print Prod Costs to support Component 4 activities				5000		5000			5000	UNDP Tunisia
	Audio Visual & Print Prod Costs to support PMU activities						0		7500	7500	UNDP Tunisia
	IT Equipment						0		12524	12524	UNDP Tunisia
	Professional Services- Audit fee						0		10000	10000	UNDP Tunisia
	Audio Visual & Print Prod Costs to support Component 1 activities	25000					25000			25000	EPA
	Audio Visual & Print Prod Costs to support Component 2 activities		2500				2500			2500	EPA
	Audio Visual & Print Prod Costs to support Component 1 activities	15308					15308			15308	MOECC
	Audio Visual & Print Prod Costs to support Component 1 activities	25500					25500			25500	FCC
	Audio Visual & Print Prod Costs to support Component 4 activities				20000		20000			20000	WONES
	Professional Services- Audit fee						0		35001	35001	UNDP Sierra Leone
	Audio Visual & Print Prod Costs to support Output E1 (2 webinars/year)					7500	7500			7500	Avfal Sverige
	Audio Visual & Print Prod Costs to support Output E2 (1 publication)					13500	13500			13500	UNDP C&W Hub

	IT Equipment						0		2500	2500	UNDP C&W Hub
	Professional Services (Audit)						0		25000	25000	UNDP C&W Hub
<b>Grand Total</b>		3122191	5163735	1162233 5	2058314	2408500	243750 75	14147 87	22451 38	280350 00	

Please explain any aspects of the budget as needed here

## ANNEX I: RESPONSES TO PROJECT REVIEWS

From GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF.

### STAP Comments

STAP recommends the following to improve the proposal further:

1. Develop a narrative of plausible futures that considers the potential effects drivers of change and their associated uncertainties on achieving the project's goal and use this to inform intervention options. See STAP's [primer on future narratives](#) for more guidance.

Answer: Future Narratives were developed and introduced within the CEO Endorsement Request.

2. Improve the theory of change based on comments in point 5 in Section 2

Theory of Change (ToC):

- Enduring change is sought by prioritizing measures to increase circularity but need to focus more on the highest rung of the waste hierarchy ladder of reducing production and consumption.

Answer: The Development Challenge and the Strategy of the Project now have strengthened narratives, focusing on waste reduction as a first step towards zero waste cities.

- Institutional & societal behavioural change sought through multiple avenues, such as using mayoral authority to convene steering committees, engage community associations & civil society, build capacity, green procurement guidelines for the public sector, etc.

Answer: Noted. Municipalities have been engaged, endorsed the project, and are closely involved in each of the 5 components. It will indeed be key to ensure the behavioral change that is sought.

- Root causes included, but the central problem of externalizing costs of waste generation by producers and suppliers needs to be emphasized more. Outputs related to policy, legal & regulatory frameworks could improve emphasis on source reduction.

Answer: Noted with thanks. Externalizing costs of waste generation by producers and suppliers have been introduced as one of the causes in the Problem Tree Analysis in ToC.

Outputs narrative related to policy, legal & regulatory frameworks were updated, including by emphasizing reduction of waste generation as a first step towards zero waste goals.

- The causal pathways leading to impacts are not presented in the ToC.

Answer: Noted with thanks. The pathways leading to impacts have been included.

- The assumptions underlying the ToC are missing; for example, what are the things (assumptions) that must happen for the developed zero waste framework to lead to reduced chemical pollution and decoupled economic activities from waste? Each causal pathway (from activities to outputs to outcomes to impacts) should have underlying assumptions.

Answer: Noted with thanks. Assumptions have been introduced within the ToC narrative.

- Could seeking investment for PPP to cover city waste management result in a perverse incentive by not focusing on upstream source reduction?

Answer: UNDP has several successful experiences in promoting PPPs models (eg. Ghana, Türkiye, Colombia). Based on consultation with experts, the PPP model is particularly suited for the waste sector. At the city level, PPP offers different solutions compared to EPR (which is mainly developed at national level). The cities that have excellent waste systems all developed PPPs for different waste streams. It is nevertheless essential not to aim for oversized infrastructure for waste management, that would lead to investment requiring to maintain high volumes of waste to be economically viable – which would be incompatible with a zero-waste approach. This underlines the fundamental importance of proper overall planning at the city level, taking the objective of waste reduction into account in all city-level strategies.

The project is designed to focus its interventions on upstream and midstream solutions as the main path to divert waste from landfilling, open burning, dumping and incinerating in cities. These interventions are planned based on the waste hierarchy (prevention, reduce, recycling, recover and dispose) and circular economy principles. For the minimum fraction of residual waste that will inevitably require proper treatment and disposal, the project foresees to support the introduction/adoption of Best Available Techniques (BAT) and Best Environmental Practices (BEP) aligned to the Stockholm Convention, including the upgrading of existing treatment/disposal facilities, and avoid or minimize the emissions of POPs and/or Mercury releases.

- Given that each country has unique challenges, should the current ToC apply the same way to each city, or should it be tailored to each country's circumstances?

Answer: Noted with thanks. The ToC for the whole project has been designed and specific barriers to be addressed in each of the participating cities (Cities' TOC are aligned to the Global Project ToC) have been highlighted within the ToC narrative.

### 3. Enhance the project components based on comments in point 6 of Section 2

Components. The proposal provided a detailed description of the project components that range in covering integrated planning and programming (including policy, legal and regulatory frameworks), to sustainable financial instruments, to sustainable production and consumption, along with material management and knowledge management. The rationale behind some components could be strengthened with the following examples.

- Component 1 did not consider how hazardous waste would be dealt with, e.g., mercury, POPs.

Answer: Noted with thanks. It was included explicitly within the description in Output A1. Waste Management Plans and Zero Waste Strategies aim to address every waste stream available in cities based on local assessments. Hazardous Waste is among the streams that will be assessed and included in the related plans and strategies.

- Component 2 – good to seek financing mechanisms for infrastructure. Consider reviewing the following publications from [OECD](#), [Ocean Conservancy](#), [World Bank](#), [Bharadwaj, et al.](#), [ADB Institute](#), and [IBRD/World Bank](#), for insights on financing waste management infrastructure in developing economies.

Answer: Noted with thanks.

- Component 2: good that the project intends to evaluate currently in-place incentives to discourage or eliminate unfavorable ones. It is essential to focus on incentives and undertake a full-fledged policy coherence analysis in each country to identify contradictory policies and gaps across economic sectors and align them to achieve sustainability objectives.

Answer: Noted with thanks.

- What is the basis for selecting the sectors for pilot activities? Does the selected sector apply across the 4/5 cities? Or would each city choose the most important sector to focus on, or would all cities address all sectors? How about sectors with organic waste (e.g., agro-industries) which is part of the waste mix in all countries? These sectors overlap with those of the integrated programs (chemical supply chain, circular plastics, and sustainable cities). How will synergy and cross-pollination be ensured?

Answer: During the PPG phase the cities have identified prioritized waste streams based on local contexts assessments as well as avoiding overlapping with other ongoing/planned initiatives and investments in the cities.

In terms of organic waste, this stream was selected in the 5 cities to effectively enhance current generation and management.

The GEF IPs, among other projects, have been identified as Global On Going/Planned Projects that will be of great importance and complementary to the SWAP Objective and, through the Global Component, this Project will ensure coordination and count on the capacity built and knowledge gathered from the identified projects.

- Component 3, is building capacity among industries to promote cleaner production in the largely multi- national electronics and textile sectors feasible? Ecolabelling and sustainable certification require significant investment and time to develop. How can these instruments, implemented within the scope of this project, lead to a substantial change in consumer behavior in the sectors identified?

Answer: It is considered feasible, and challenging as well, to work with multinationals' stakeholders in capacity building for the promotion of sustainable production. Building capacities in industries are linked to available industries and selected waste streams in each of the participating cities. As an example, Tianjin (China) has managed to engage multinationals such as Lenovo, Rianlon Cooperation or Great Wall Motor Company, while Freetown has engaged local industries such as Milla Group of Companies (plastic industry).

Regarding ecolabelling and sustainable certification: some of the cities already have green certifications standards, which are being implemented as pilot activities in specific products category. The project will seek to boost ongoing initiatives or those that may be under development. Substantial change can be achieved through proper replication and scalability to be determined during project implementation and included in the Replication and Scale Up Strategy.

- Component 5 involves knowledge management – how will best practices be determined, and how will practices be chosen for scale-up? Incomplete description of how awareness (awareness of what?) can be achieved with informal sector workers, e.g., waste pickers and e-waste dismantlers.

Answer: The Global Component will conduct the role of coordination, communication, learning and knowledge management of the SWAP Initiative. Partnership with experts (as identified within the Technical Advisory Project Committee) will enable the selection of best practices for proper scale-up.

Regarding the informal sector: the project will support the development and formalization of informal recyclers/recycling companies. Efforts will be directed to deliver training and education, to promote access to the benefits of circular economy models, to build/increase technical capacity and improve environmental practices (including the introduction of best available technologies) in the collection, transport, recycling, and valorization of recyclables materials. The project will support the improvement of informal recyclers' working conditions and encourage their integration into the value chain. Lastly, the strengthening of the links between recyclers and those who consume their recycled materials will be sought.

4. Undertake a policy coherence analysis to understand where conflicting policies can hinder the achievement of the expected outcomes and ensure these are addressed appropriately. See [STAP's paper on policy coherence](#) for more guidance.

During the PPG phase, a deeper assessment of national and local policies - through baseline information and stakeholder consultations - of the participating cities was conducted to understand coherence among different dimensions: across sectors (horizontal), across levels of governance (vertical), and across time frames (temporal).

Considering policy coherence as the systematic promotion of mutually reinforcing policy actions across government departments and agencies creating synergies towards achieving the agreed objectives, the project interventions - mainly within Component 1 and Component 2 - are designed to foster policy coherence when designing national/local frameworks towards zero waste cities, ensuring mechanisms of engagement and consultations that encompass the three dimensions, enabling sustainability of the Global Environmental Benefits to be achieved by the project.

5. Provide clearer information on the data and assumptions used in estimating the GEBs.

Answer: A deeper assessment of the GEBs has been conducted based on available information at local level. Data, methodologies, and assumptions have been detailed.

6. Make provisions for tracking, measuring, and reporting these and the socioeconomic co-benefits in place.

Please see STAP's recent [paper on incorporating co-benefits in GEF's investments](#) for guidance.

Answer: M&E of the Project ensures tracking, measuring, and reporting of GEBs and co benefits.

7. Provide more information on how lessons will be learned from ongoing GEF investment and zero-waste initiatives elsewhere and how those lessons learned will feedback to the project.

Answer: The GEF on going/planned investments, among other initiatives, have been identified as Global On Going/Planned Projects that will be of great importance and complementary to the SWAP Objective., Through the Global Component, this Project will ensure coordination and count on the capacity built and knowledge gathered from the identified related projects. Knowledge exchange will be ensured through the Knowledge Management Platform as well as the planned annual International Workshops.

In addition, the Global Project Steering Committee has defined a Technical Advisory Project Committee to support the implementation with the following representatives: UN-Habitat, UNEP, Avfall Sverige, ISWA, SITRA, Cities Alliance, ICLEI, Zero Waste International Alliance (the list is indicative at this stage and could be expanded, or adjusted).

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## GEF COUNCIL MEMBERS

### Germany Comments

Germany approves the following PIF in the work program but asks that the following comments are taken into account:

Germany welcomes the objective to reduce chemical pollution in the value chain through activities at the municipal level. However, the final proposal should include more focus on the need to align municipal actions with activities at the national level, as the legislative mandate of cities might be limited.

Answer: Noted with thanks. The design of the project takes into account the necessary interaction and alignment between municipal and national dimensions. This can be evidenced mainly within activities in Component 1 where institutional coordination mechanisms are defined to ensure this interaction and alignment. In addition, the proposed composition of the Project Steering Committees in each of the SWAP cities evidences participation of national and municipal authorities which will favor and ensure alignment during project implementation.

Suggestions for improvements to be made during the drafting of the final project proposal:

- Germany appreciates the best practices considered in output E.2 and the partnership strengthening including international treaties and platforms. These resources should be used to guide and streamline city activities in the project. In output A.2, cities should make use of these.

Answer: Noted with thanks. It is considered that best practices and partnerships will guide and streamline all of the city's activities in the project.

- The project rationale and output A.4 should clarify in more detail how the project deals with healthcare/medical waste. Medical waste has to be burned in special ovens as it is classified as hazardous waste, which requires specific infrastructure and is not defined as circular.

Answer: Noted with thanks. The project seeks to promote the reduction of hazardous waste, which includes hazardous healthcare waste. For the minimal fraction of residual waste that will inevitably require proper treatment and disposal, the project foresees to support the introduction/adoption of Best Available Techniques (BAT) and Best Environmental Practices (BEP) aligned to the Stockholm Convention, including the upgrading of existing treatment/disposal facilities, and avoid or minimize the emissions of POPs and/or Mercury releases.

- Waste to energy is not considered a sustainable solution, as implied in the project rationale (p. 13). The final proposal should specify or modify this classification.

Answer: Noted with thanks. Some of the participating cities already have this kind of processes in place, this Project through Output C1 will ensure their operations under controlled emissions meanwhile discouraging through upstream interventions waste reaching these facilities.

- The barrier analysis in the project rationale should also include the occasional lack of knowledge on the potential of circular economy and appropriate business models as well as a missing perspective on waste as a resource.

Answer: Noted with thanks. The occasional lack of knowledge has been included within the Problem Tree Analysis.

- Output A.1 should support cities in identifying and if applicable aligning indicators and data collection mechanisms through standard indicators, including from best practices and international standards.

Answer: Noted with thanks. It was included within the narrative of Output A1.

- Output C.2 should consider the limited influence of cities on standardized value chains, such as the manufacturing of electronics. Also, it should address the fact that a large share of products is imported from other countries (e.g. textiles).

Answer: Noted with thanks.

#### **United States Comments**

- We support this as it can improve waste management.

Answer: Noted with thanks.