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N-E-JO-1

**Contribution to the development of a joint public-private
roadmap to transition to reduce the use of single-use
plastics (SUPs) in Jordan**

Inception Report (Task 1 - D.1.1)

Final Report

August 2021

<i>Version</i>	<i>Document Title</i>	<i>Author</i>	<i>Review and Clearance</i>
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WATER AND ENVIRONMENT SUPPORT IN THE ENI SOUTHERN NEIGHBOURHOOD REGION

The "Water and Environment Support (WES) in the ENI Neighborhood South Region" project is a regional technical support project funded by the European Neighborhood Instrument (ENI South). WES aims to protect the natural resources in the Mediterranean context and to improve the management of scarce water resources in the region. WES mainly aims to solve the problems linked to the pollution prevention and the rational use of water.

WES builds on previous similar regional projects funded by the European Union (Horizon 2020 CB/MEP, SWIM SM, SWIM-H2020 SM) and strives to create a supportive environment and increase capacity all stakeholders in the partner countries (PCs).

The WES Project Countries are Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Libya, Palestine, Syria and Tunisia. However, in order to ensure the coherence and effectiveness of EU funding or to promote regional cooperation, the eligibility of specific actions can be extended to neighboring countries in the Southern Neighborhood region.



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ABBREVIATIONS

<i>EPR</i>	Extended Producer Responsibility
<i>GAM</i>	Greater Amman Municipality
<i>MoENV</i>	Ministry of Environment
<i>MoLA</i>	Ministry of Local Administration
<i>NGO</i>	Non-Governmental Organization
<i>RIA</i>	Regulatory Impact Assessment
<i>SUPS</i>	Single Use Plastics
<i>GoJ</i>	Government of Jordan

1 INTRODUCTION TO THE PROJECT

The "Water and Environment Support (WES) in the ENI Neighbourhood South Region" project is a regional technical support project funded by the European Neighbourhood Instrument (ENI South). WES aims to protect the natural resources in the Mediterranean context and to improve the management of scarce water resources in the region. WES mainly aims to solve the problems linked to environmental pollution and the unsustainable use of water.

WES builds on previous similar regional projects funded by the European Union (Horizon 2020 CB/MEP, SWIM I and II, SWIM-Horizon 2020 SM) and strives to create a supportive environment and increase the capacity of all stakeholders in the partner countries (PCs).

The WES Partner Countries are Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Libya, Palestine, Syria and Tunisia. However, in order to ensure the coherence and effectiveness of EU funding or to promote regional cooperation, the eligibility of specific actions can be extended to neighbouring countries in the Southern Neighbourhood region.

1.1 CONTEXT OF THE ACTIVITY

As part of the WES project work plan, the Ministry of Environment (MoENV) of Jordan has asked the WES project to implement two National Activities, the first under the topic of "promotion of circular economy" and the second under the horizontal topic of "PPP & Access to sustainable Investment". After discussion and coordination with the designated representatives at the Ministry of Environment (MoENV), the WES team has proposed an approach for a structured technical assistance activity that addresses the abovementioned topics and responds to the country's priorities. The WES Project approach for the technical assistance activities in Jordan aims to support Jordan implement its green and circular economy agenda and particularly the strategies and action plans for green and circular economy in the solid waste sector with emphasis on Single-Use Plastics and in advancing sustainable consumption and production. In obtaining better integration and coherence of the environmental themes, a "twin" activity covering two topics (Curbing Single-Use Plastics (SUPs) and green banking) has been formulated to support the implementation of the Green Economy roadmap and green investment opportunities in the waste sector in Jordan and in particular of the SUPs.

The two activities mentioned hereafter will be implemented in an integrated way:

- a) Activity N°1 will tackle the issue of the reduction of the use of Single-Use Plastics (SUPs) in Jordan, pointed out in the GG-NAP Waste under "Waste Sector Priority N°12 - Develop a joint public-private roadmap to transition to reduce the use of SUPs at the household and commercial levels".
- b) Activity N°2, will tackle aspects of green banking in relation to the same issue of the reduction of the use of SUPs.

This report presents the main findings and results of task 1 for the activity N°1: entitled "Contribution to the development of a joint public-private roadmap to transition to reduce the use of single-use plastics in Jordan".



1.2 MAIN OBJECTIVES AND EXPECTED RESULTS OF THE PROJECT

The objective of this activity is to provide technical assistance to the Ministry of Environment of Jordan to address Single-Use Plastics. The core of this activity is to enhance the country's awareness and capacity to respond to the challenges posed by plastic pollution.

The specific objectives are to:

- Provide information on production and good practices on replacing and/or recycling SUPs.
- Approach policy measures and financial options for curbing SUPs.
- Pave the way for a gradual phase-out of SUPs and provide recommendations for a relevant strategy.

1.3 SCOPE OF WORK AND DELIVERABLES OF THE PROJECT

The project aims to develop public-private roadmap that will facilitate the transition towards curbing 4 SUPs in Jordan, the 4 selected SUPs will be agreed upon with the Ministry of Environment, and later defining roadmaps to curb these SUPs. Throughout the project, the consultant will provide the following deliverables:

- Inception report.
- Stakeholder Commitment Tracking Form.
- Baseline information document on SUPs in Jordan including review of the plastic waste stream connected with SUPs.
- Report on alternative options to the selected SUPs transition away from manufacturing SUPs.
- Public-private roadmap to transition towards curbing the production and use of selected SUPs in Jordan.
- Presentations and minutes of the meeting(s).
- Synthesis Report (progress, outputs and outcomes, lessons learned).

2 BACKGROUND INFORMATION

Worldwide, the generation rate of Solid Waste (SW) is rising, due to a linear economic system. This poses a problem to decision-makers on the national, regional, and local level. The issues arising from this development are multiple since the rising amount of waste must be managed properly. Accordingly, Solid Waste Management (SWM) became increasingly important, mismanaged SW has negative impacts on the human health as well as on the environment.

In the meantime, the SWM sector of the Hashemite Kingdom of Jordan finds itself in a phase of transformation, ignited by the endorsement of the National Municipal Solid Waste Management Strategy (NMSWMS) in September 2015. This transformation is targeting to reach a stage of a modern SWM sector in the country, which was before struggling to achieve an environmentally sound and financially sustainable situation. Within the strategy's baseline report, it was discovered that Jordan

has no adequate legislations to govern the sector, consequently, more focus was shed on the legislative aspect. In March 2020, Jordan issued Waste Management framework law No. (16/2020), the laws general but it will be the cornerstone for future legislations that will help govern the sector.

Through the gap analysis that was conducted in February – May 2021 as part of the WES project, the MoENV confirmed that Regulatory Impact Assessment (RIA) is an essential step before making decision that might affect the socio-economic situation.

2.1 NATURE AND EXTENT OF SUP POLLUTION IN JORDAN

Currently, Jordan is not implementing substantial programs to tackle plastic pollution, the only two things that reduces the amount of plastic waste reaching disposal sites are the few sorting facilities that are operated by the local municipalities, and the informal waste picking activities, with the latter collecting significantly larger amounts of waste.

A good portion of SUPs waste in Jordan ends up buried in dumpsites and landfills and stays in the environment for hundreds of years or what's even worse SUPs ends up littering the environment because of the irresponsible individual behaviors in addition to the poor waste management system in some locations. Many forest areas, heritage site areas, and marine areas ends up littered with SUPs waste which has devastating impacts on nature, biodiversity, and cultural heritage.

Nonetheless, the extent of the plastic pollution in Jordan cannot be measured due to the lack of waste data documentation, as not all disposal sites have weighing bridges, and therefore, many municipalities are not aware of the generated waste amounts. Moreover, many would argue that the most recent detailed waste composition study might be from the national strategy in 2015, which says that the plastic fraction constitutes to an average of 15% of the generated waste in Jordan with an estimated 8,000 tons/days of mixed waste. However, proper documentation of SUPs does not exist, as there is no sufficient documentation of the generated plastic nor the amount of plastic waste ending in disposal sites.

However, plastic recycling activities in Jordan remain very basic, with only an estimation of 5,000 tons/month of plastic that is recycled locally¹. PP is the most recycled plastic, while PET is the least recycled material, with most of it being exported outside of the country.

Many recyclers claimed that they are not keen to invest in expensive technology to recycle more types of waste and produce different products due to market volatility and the unstable situation of the local market.

2.2 PREVIOUS WORK IN JORDAN ON THE SUPS

SUPs have not been strongly targeted in Jordan, as the vast majority of waste management activities in Jordan has targeted institutional set-up, improved collection services and better treatment of waste

¹ Based on estimation of the players in the local market

in general. Initiatives on waste treatment focused on dry waste in general (metals, plastic, and cardboard).

The only initiative that was conducted in Jordan regarding SUPs was on plastic bags, which started in 2017 when the Government of Jordan (GoJ) issued instruction to prohibit the use of non-biodegradable plastic bags. However, until today, non-biodegradable plastic bags are still seen in the Jordanian market due to the lack of law enforcement.

Nonetheless, the GoJ is currently working to introduce the Extended Producer Responsibility (EPR) program in order to reduce the SUPs pollution in Jordan, nevertheless, the program has not been launched and implemented yet, as it is still under study.

3 SELECTION OF THE 4 SUPS

As mentioned in subsequent sections of this report, SUPs use worldwide including in Jordan has tremendously increased over the last few decades. It has now become integrated into our daily activities much more than ever before. The overall list of SUPs is quite long and cannot be all tackled in one go. Therefore, in this project it was agreed to tackle 4 SUPs which are selected based on EU guidance documents and consultations with the Jordanian Ministry of Environment.

3.1 BARCELONA CONVENTION GUIDELINES

The Barcelona convention had recently issued “Guidelines on tackling single use plastic products in the Mediterranean” which provide a common understanding of the set of measures that can be considered in developing the most appropriate framework to prevent the negative impacts of SUPs in the signatory countries of the Barcelona Convention. This convention focuses on protecting the Mediterranean marine environment from SUPs and shall be adopted for Jordan although Jordan does not have a shore on the Mediterranean. It should be noted that these recent guidelines complement several previous Barcelona convention guidelines including:

- Guidelines to phase out single-use plastic bags in the Mediterranean;
- Guidelines to address single-use plastics through public procurement in the Mediterranean;
- *Legislative Guide for the regulation of Single-Use Plastic Products.*

As per the Barcelona convention guidelines, the most common SUPs found as beach litter are as summarized and ranked in table below.



TABLE 1 TOP 10 SUPS FOUND IN BEACH LITTER ITEMS

Ranking	TOP 10 SUPs found in the Mediterranean
1	Cigarette butts and filters
2	Plastic caps and lids (including rings from bottle caps/lids)
3	Cotton bud sticks
4	Drink bottles
5	Crisps packets/sweets wrappers/Lolly sticks
6	Cutlery, plates and trays / Straws and stirrers
7	Shopping bags incl. pieces
8	Food containers incl. fast food containers
9	Cups and cup lids
10	Small plastic bags, e.g. freezer bags incl. pieces

The Barcelona convention also provided a list of the priority SUPs in the region. Of course, these priority items are for guidance only and the final priorities can be determined on the local level.

TABLE 2 PRIORITY LIST OF SUPS PER GROUP OF ITEMS IN THE MEDITERRANEAN

Group of items	SUPs
Packaging	Bags
Smoking-related	Cigarette filters
Food and beverage packaging	Drink bottles, caps and lids
	Crisp packets and sweet wrappers
On-the-go food and beverage packaging	Cutlery, plates and trays
	Straws and stirrers
	Drinks cups and cup lids
	Food containers including fast food packaging
WC flushed items	Sanitary applications, including cotton buds, wet wipes and sanitary towels
Personal protective equipment	Masks and gloves

This list shall be used as the main guidance for selecting the 4 SUPs which shall be tackled in this project.

3.2 MOENV AND JORDANIAN SITUATION

The Jordanian Ministry of Environment has focused in the past on curbing the use of black non-biodegradable shopping bags as the main SUP in Jordan and has actually developed regulations trying to reduce its use. However not much has been done on the other SUPs until recently as Jordan issued several legislations and strategies that can help support this case including Waste Management framework law (2020), Biodegradable shopping plastic bags regulations (2017), the Draft EPR



instructions on packaging waste (2021), and the Waste Sector Green Growth National Action Plan (Waste GG-NAP 2021- 2025) based on Jordan’s Green Growth Vision: economic growth which is environmentally sustainable and socially inclusive. More details about these regulations can be found in section 4.

Following the organization of series of discussions with the MOENV, it appears that they believe the time is right to move more confidently towards reducing SUPs in Jordan but in an economically and socially responsible manner. Any proposed regulations should have their impacts investigated first to ensure they do not harm the economy that is suffering recently in Jordan especially after the impacts of the COVID 19 Pandemic.

3.3 SELECTION CRITERIA

The selection criteria of the SUPs as discussed with the MoENV include the following main aspects:

- To consider the priority list presented in the Barcelona guide documents
- To consider selecting each of the 4 SUPs to be from a different SUP group
- To consider selecting SUPs that are an issue in Jordan
- To consider selecting SUPs that are common but that have some clear alternatives

3.4 SELECTED SUPS

After implanting the selection criteria and through consultations with the Jordanian ministry of Environment the following SUPs were selected:

Group of SUPs	SUP	Reason for selection
Packaging	Plastic bags	Shopping bags has already been targeted previously, and the MoENV wants to build on their previous work as Littering caused by plastic bags is still visibly high and it is found in large quantities in the waste stream.
Food and beverage packaging	Drink bottles, caps and lids	Littering caused by Drink bottles, caps and lids is visibly high and it is found in large quantities in the waste stream.
On-the-go food and beverage packaging	Food containers including fast food packaging	Littering caused by food containers is visibly high and it is found in large quantities in the waste stream.
On-the-go food and beverage packaging	Cutlery, plates and trays	Littering caused by cutlery, plates and trays is visibly high and it is found in large quantities in the waste stream.



4 REGULATORY FRAMEWORK

The regulatory framework related to curbing SUPs in Jordan and EU are summarized in this section. It is important to realize that the target of reducing and eventually eliminating SUPs requires shared public and private initiatives in order to be able to introduce the required changes without significantly impacting the economy or society.

4.1 REVIEW OF APPLICABLE JORDANIAN AND EU REGULATIONS

4.1.1 JORDANIAN REGULATIONS

The MoENV is the governmental entity in charge of issuing and overseeing the implementation of environmental regulations in Jordan. Jordanian legislations include laws, regulations, and instructions (in the order of most to least legally binding). In addition to these legal documents there are strategies, policies and action plans which are not legally binding but show the desired directions proposed and recommended by the government.

The most important laws, regulations, instructions and strategies that that can support curbing plastic pollution include:

Environmental Protection law No6 of 2017

This is the main environmental protection law in Jordan and sets the basic rules of protecting marine, soil, air, and other water resources. It assigns the MoENV as the main entity in charge of environmental legislations and presents the framework for protecting the environment.

Waste Management Framework Law No.16 of 2020

This is the most important legal document that deals specifically with waste prevention and management in Jordan. It addresses several waste related topics: 1) Assigns responsibilities of waste producers for all types of waste (Hazardous, domestic, commercial, agriculture, industrial, demolition and construction, etc.), 2) Classifies waste producers as per their total waste generation, 3) Encourages segregation of waste to recycle more, 4) Encourages reduction of littering, 5) National planning to improve future waste management practices, and 6) Sets penalties for illegal waste disposal.

Monitoring and Inspection of Economic Activities law No 33 of 2017

This law sets the legal framework for the relationship between private sector economic activities and governmental inspection and monitoring sections. It assigns the Ministry of Environment the responsibility to monitor any environmental infringements from any economic activity which includes industry, trade, agriculture, tourism, services, IT, and health care.

Environmental Classification & Licensing Regulation No 69 of 2020 (Made by virtue of Clause A of Article 5 of the Environment Protection Law No. 6 of 2017)

This regulation provides implementation details of the process of granting environmental permits for projects or activities that might have an environmental impact. Such permits typically require a detailed environmental study called an Environmental Impact Assessment and typically also involve conditions associated with proper monitoring and management of Environmental aspects during the construction and operation phases.

Biodegradable Shopping Bags Regulations (No 45 of 2017)

This regulation is focused purely on shopping bags. It forbids importing, manufacturing or dealing in any way with nonbiodegradable shopping plastic bags. This regulation permits the use of biodegradable plastic shopping bags and does not deal with Garbage bags or agricultural plastic bags/products. Even heavy shopping bags that are 50 Microns or thicker are outside the scope of the regulation. The regulation organizes the import and manufacturing and labeling of biodegradable shopping bags.

Green Growth National Plan and Action plans

Waste Sector Green Growth National Action Plan (Waste GG-NAP 2021- 2025) which is based on Jordan's Green Growth Vision: economic growth which is environmentally sustainable and socially inclusive. This action plan focuses on the minimization of waste production and the switching to a circular economy.

In addition to the above, the MoENV is working on developing a new draft bylaw regarding the management of non-hazardous solid wastes, the draft instructions focusing on the Extended producer responsibility for the packaging wastes and the draft instructions related to the management of the special wastes. All of these legislations will be issued in accordance with the Waste Management Framework Law No. (16) for the Year 2020.

4.1.2 EU REGULATIONS

Several EU directives and action plans support curbing the use of SUPs including:

EU directive on the reduction of the impact of certain plastic products on the environment (2019/904)

This directive is the most relevant directive related to SUPs minimization and elimination. It is concerned with the growing use in short-lived plastic applications, which are not designed for re-use or cost-effective recycling (basically SUPs). The directive encourages using items that can be reused and recycled rather than disposed after one use. The directive also recognizes the issue of marine littering as a growing global problem with direct link to SUPs. The directive proposes that in a circular economy SUPS should be reduced and eliminated to be replaced by reusable products.

Closing the loop - An EU action plan for the Circular Economy

This action plan is about the transition to a more circular economy, where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste is minimized. Such concept clearly requires the elimination of SUPs as these items stay in the economy for very short period and are immediately converted to waste. The action plan requires a thorough evaluation of the entire life cycle of products from its production to consumption and waste management, then finally trying to convert waste back into a resource. Plastics are actually presented in this action plan as the number one priority as an essential component that must be controlled to transition to a circular economy.

Guidelines on tackling single use plastic products in the Mediterranean “Barcelona convention guidelines”

As mentioned earlier in the report, these guidelines are the most relevant to this assignment as they present the priority SUPs in the Mediterranean and gives guidance on the alternatives. These recent guidelines complement several previous Barcelona convention guidelines including:

- Guidelines to phase out single-use plastic bags in the Mediterranean
- Guidelines to address single-use plastics through public procurement in the Mediterranean
- Legislative Guide for the regulation of Single- Use Plastic Products,

5 INCEPTION PHASE STAKEHOLDER ENGAGEMENT ACTIVITES

5.1 STAKHOLDER MAPPING

All relevant stakeholders were mapped and assess in terms on involvement and role considering the aims and objectives of the project. Accordingly, stakeholders were categorized as follows:

- 1) Public sector**, which includes relevant authorities for the legislation, operation, and implementation.
- 2) Private sector**, which includes the entities working in the manufacturing of SUPs and as well as those generating them.
- 3) Other entities**, which includes international agencies as well as chamber and professional bodies.

All the aforementioned stakeholders were mapped, in order to have a basic understanding of the involved entities, depending on the level of involvement in the sector.

Additionally, all stakeholders were categorized to primary and secondary based on their expected level of involvement. The following table provides an overview of the involved stakeholders.

TABLE 3: PRIMARY AND SECONDARY STAKEHOLDERS

Name of entity	Role	Level of involvement	Proposed focal point - position	Method of communication (till date)
Ministry of Environment	Setting policies and legislations and following up with the implementation	Primary	Mohammad ALKHASHASHNEH H.E Secretary General & WES Focal Point	Joined the KoM
Ministry of Environment	Setting policies and legislations and following up with the implementation	Primary	Jihad ALSAWAIR Minister advisor for technical affairs, Director of Green Economy Unit	Joined the KoM
Ministry of Environment	Setting policies and legislations and following up with the implementation	Primary	Abdallah ALZYOD Director Assistant, Head of Policies & Strategies Section	Joined the KoM
Ministry of Environment	Setting policies and legislations and following up with the implementation	Primary	Maha MA'AYTA Director of Policy and International Cooperation	Joined the KoM
Ministry of Environment	Setting policies and legislations and following up with the implementation	Primary	Heba ZABALWAI Head of Solid Waste Management Section	Joined the KoM
Ministry of Environment	Setting legislations and following up with the implementation of the legislations	Primary	Hanadi Al Rabayah – Chemical Engineer	Personal meeting

Name of entity	Role	Level of involvement	Proposed focal point - position	Method of communication (till date)
Ministry of Local Administration	Operation of the waste collection, disposal, and treatment in Jordan	Primary	Jumana Al Abbadi – Head of Solid waste management and Planning	Personal meeting
Greater Amman Municipality	Operation of the waste collection, disposal, and treatment in Amman	Secondary	Omar Arabiyat - Head of Environment Directorate	Personal meeting
Ministry of Industry and Trade	Monitoring and controlling the exported and imported materials	Primary	Naghem Jaber - engineer	Phone call
Department of statistics	Provide statistics regarding the plastic generation	Secondary	Sudki Hamdan – Head of Environmental statistics department	Phone call
Approved plastic industries	Manufacturing of plastic bags and food packaging	Primary	Rami Fraihat - Factory manager	Phone call
Al Hadaf International Company	Manufacturing of Food containers, food packaging Cutlery, plates, and Trays	Primary	Ramy Al-Saheb - Factory manager	Phone call
Jordan Sharif plastic factory	Manufacturing of Food containers, food packaging Cutlery, plates, and Trays	Primary	Mohammad Adel Taweel - General Manager	Phone call
Alghazal for plastic	Manufacturing of Cutlery, plates, and Trays	Primary	Qassem Abu Ghazaleh - General Manager	Phone call
Nasser Kayyali Commercial And Industrial Company	Manufacturing of plastic bags	Primary	Saaddedin Alkayyali - Production Manager	Phone call
Al Mohannad Plastic Industries	Manufacturing of plastic cups and food packaging	Primary	Wathiq Laqtaifi - General Manager	Phone call
Granada Plastic Manufacturing Company	Manufacturing of plastic bags and food packaging	Primary	Rania Hindi - Vice President	Phone call

Name of entity	Role	Level of involvement	Proposed focal point - position	Method of communication (till date)
Al-Ahram plastic company	Manufacturing of plastic cups, cutlery and food packaging	Primary	Marwan Abdeen - Company Manager	Phone call
Al-Hussam Plastic Industries Comany	Manufacturing of plastic and packaging products including packaging materials, food packaging, drinking straws, and plastic shopping bags	Primary	Kamel Karazon - Executive Director	Phone call
Jordan Star Plastic Factory	Manufacture of plastic cups, bottles, and containers	Primary	Hatem AL Taweel - Sales and Marketing Manager	Phone call
Carrefour	Generator of SUPs – Hyper market	Primary	Ehab Maraqa – market Manager	Phone call
TAJ Mall	Generator of SUPs – shopping mall	Primary	Mohammad Mustafa – Head of Operation	Phone call
City Mall	Generator of SUPs – shopping mall	Primary	Osama Al Dawat – Cleaning Department Manager	Phone call
Mecca Mall	Generator of SUPs – shopping mall	Primary	Sa’ed Dodakh – General Manager	Phone call
Coca Cola	Generator of SUPs – Plastic bottles and caps	Primary	Qasim – Head of Hygiene Department	Phone call
Mcdonalds	Generator of SUPs – food packaging and Plastic bottles and caps	Primary	Murad Al Zaghal – Senior Operations manager	Phone call
Golden meal	Generator of SUPs – food packaging	Primary	Jamal – Restaurant Branch Manager	Phone call
Jabri resturant	Generator of SUPs – food containers, cutlery, trays and plates	Primary	Eyad Al Masri – Restaurant Manager	Phone call
European Delegation	Implementing various Plastic-waste related projects	Secondary	Omar Abu Eid - Energy, Environment & Climate Change Programme Manager Cooperation Section	Haven’t been contacted yet

Name of entity	Role	Level of involvement	Proposed focal point - position	Method of communication (till date)
Global Green Growth Institute	Implementing various Plastic-waste related projects	Secondary	Dereje Senshaw - Country representative	Haven't been contacted yet
USAID	Implementing various Plastic-waste related projects	Secondary	Haitham Ali - Project management specialist	Haven't been contacted yet
UNDP	Implementing various Plastic-waste related projects	Secondary	Murad Al Shishani - Project coordination manager	Haven't been contacted yet
Federation of Canadian Municipalities	Implementing various Plastic-waste related projects	Secondary	Bana Abo Yousef - SWM Specialist	Haven't been contacted yet
GIZ	Implementing various Plastic-waste related projects	Secondary	Islam Dauod - Project officer - waste to positive energy program	Haven't been contacted yet
The Jordanian Union of Restaurants & confectionary properties	Representing restaurant, which generates food packaging, food containers, cutlery, plates, trays, bottles, and lids	Primary	Nimr Wild Ali – Secretary general	Haven't been contacted yet
Jordan Chamber of Industry	Representing the plastic manufacturers in the private sector	Primary	Maen Ayasrah - Energy and Environmental Sustainability Unit (EESU)	Haven't been contacted yet
			Ala'a Abu Khazneh – representative of plastic industry in the chamber	Haven't been contacted yet
Jordan Chamber of Commerce	The sale of plastic products	Primary	Hisham Dweik – director of the Chamber	Haven't been contacted yet

5.2 STAKHOLDERS ENGAGEMENT ACTIVITIES

Stakeholders' engagement started with the main stakeholder, that is the MoENV.

5.2.1 BILATERAL INTERVIEWS

Bilateral interviews were held with some key stakeholders, and further more detailed meetings will be held (under Task 2) with the main stakeholders to address the main aspects of developing a public-private roadmap for SUPs in Jordan.

The first interview was between the consultant and the MoENV, during which the selection of the 4 targeted SUPs was made. The MoENV team provided an update regarding the currently targeted SUPs, which is the non-biodegradable plastic bags of thickness less than 50 Micron, which has had limited success. However, they wanted to ensure that work on this material should build on previous work rather than starting from scratch and thus duplicating the effort.

The MoENV team also stressed out the need to target materials and strategies that can be applicable in Jordan, rather than taking too optimistic scenarios that would eventually be theoretical reports that cannot be used effectively in Jordan.

Furthermore, meetings with other representatives followed, during which, several representatives from the private sector indicated that any changes that will negatively affect the private will be opposed unless the government provides and encourages suitable alternatives transparently. Several of them feel that the government makes decisions without proper consulting with the private sector – even though the MoENV always emphasized on the need of RIA before making any decisions.

Nonetheless, it was also emphasized that the private sector will not create obstacles to stop any changes that will benefit all the stakeholders, under the condition that such changes do not harm their industry.

Moreover, meetings with several stakeholders, including the Department of Statistics (DoS), showed that there is a lack of proper documentation, especially about the SUPs.

Further interviews will follow in the second phase of the project, where meetings will be conducted with other primary stakeholders to fully understand and assess their viewpoints. The additional interviews will serve to clarify points that may have not been discussed or mentioned earlier by any other stakeholder. Moreover, a workshop to gather different stakeholders is being planned in order to have an open discussion between the public and the private sectors.

Based on the meetings and phone calls, the following conclusion and recommendations can be drawn at the current phase:

5.2.2 PRELIMINARY CONCLUSIONS

- Awareness raising within the sector is a must for all stakeholders.
- The private sector feels that the government makes legislations without taking into consideration the financial impact on them.
- The problem is that until now there is still no clear incentives for the private sector to enter. For example, the municipalities have not been able to guarantee a minimum amount of sorted

waste to be provided to the private sector in cases of operating sorting and/or recycling facilities.

- If a decision is to be made to ban the production of single-use plastics, the socio-economic effects must be addressed from the viewpoints of the private sector in general, as companies as well as the livelihood of the staff working at these companies, will be affected. This stresses the need for a Regulatory Impact Assessment (RIA) study for any possible proposed material banning, which will address the possible methods to help the affected actors.
- The MoENV views material banning as the last option in order not to pose any socio-economic problems in the country, moreover, if the banning will happen, an easily applicable alternative should be clearly defined and discussed with the private sector.
- The recycling sector in Jordan is limited due to the lack of a clear and structured recycling system. Additionally, there is still no clear value chain for recycling in Jordan, as the majority of the actors within the value chain are from the informal sector with no clear public intervention.
- The recycling factories are reluctant to invest in high technology equipment as the local market is too small, and the CAPEX is usually very high because of the customs and taxes.
- During the COVID-19 pandemic the use of plastics has increased dramatically, mainly due to the extensive use of plastic cups and bottles. Therefore, many interviewees feel that a study needs to be made to assess the extent to which the pandemic affects the use of single-use plastics.
- Any legislation needs to be fully enforced on the ground. For example, the country issued a bylaw to ban single-use plastic bags, however, these plastic bags are still seen in the market although not at the same frequency as previously. Nonetheless, this suggests inefficiency in enforcing the legislation.
- The MoENV still lacks the options to stop or even reduce SUPs. Consequently, it is important to explore international best practices in order to provide a deeper insight to reduce and eventually stop plastic pollution.

5.2.3 PRELIMINARY RECOMMENDATIONS

- Some of the interviewees suggested to have a decentralized system in case the CAPEX and/or OPEX were too high or also if the amount of collected waste per region was not feasible.
- Consumers' awareness should be increased with special focus on the importance of the EPR system. This will help increase the amount of recycled waste and provide more clarity on the value chain of recycled waste. Ergo, the importance of awareness raising.
- Statistics should be worked out about what are the most used single-use plastics that are currently produced that can also be recycled, and which are the companies producing single-use plastic bags.
- The importance of the private sector and their role in EPR is a crucial factor in reduction of EPR.
- The need to involve the private sector in a Public Private Partnership (PPP) model, which is essential for circular economy.

5.2.4 STAKHOLDERS SURVEY

A survey will be developed and distributed for all the stakeholders during the second phase for the market assessment of plastic waste streams with focus on the four selected items. Each stakeholder's category will have different survey. The survey will gather general data about all the stakeholders, addressing the current situation of plastic pollution, amount of plastic production with focus on the four selected and estimated amounts ending in disposal sites.

The surveys will cover several points, inter alia:

- 1) Stakeholder information:
 - a) Organisation and contact details;
 - b) How is the organisation engaged with SUP items?
- 2) Current context of SUP items at the national level:
 - a) What national legislation or planned initiatives target SUP end-of-life management, such as reuse or recycling schemes, collection and EPR schemes?
 - b) To what extent are these end-of-life management practices considered efficient and cost-effective?
 - c) What are the key challenges or gaps related to the implementation of waste management? For instance: waste infrastructure, quality of the SUP item, market related issues;
- 3) Key data and statistics on SUP items at national level:
 - a) Production and consumption, imports and exports of SUP items;
 - b) Turnover and jobs
 - c) Main life-cycle stages of the supply chain of plastics produced domestically and the key players;
 - d) SUP reuse, recycling, landfill and incineration;
 - e) Rate of collection, reuse and recycling (possibly also composting) of SUP items (taking into account informal sector, if any);
 - f) Proportion of recycled content in the manufacturing of new products.
 - g) Alternatives to SUPs: products and materials, production costs and selling prices, use evolution over time, collection and end-of-life treatment
- 4) Next steps or future plans for the organisation regarding SUP items.