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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 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 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>ISWML</i>	INTREGATED SOLID WASTE MANAGEMENT LAW
<i>KOM</i>	KICK-OFF MEETING
<i>MoE</i>	MINISTRY OF ENVIRONMENT
<i>Mol</i>	MIISTRY OF INDUSTRY
<i>ML</i>	MARINE LITTER
<i>MLPO</i>	MARINE LITTER PREVENTION OFFICE
<i>NGOs</i>	NON GOVERNMENTAL ORGANISATIONS
<i>OMSAR</i>	OFFICE OF THE MINISTER OF STATE FOR ADINISTRATIVE REFORM
<i>SUPs</i>	SINGLE USE PLASTIC ITEMS
<i>SWM</i>	SOLID WASTE MANAGEMENT
<i>TORs</i>	TERMS OF REFERENCE
<i>UN FAO</i>	UNITED NATIONS FOOD AND AGRICULTURE ORGANISATION
<i>UNDP</i>	UNITED NATIONS DEVELOPMENT PROGRAM
<i>UNEP MAP</i>	UNITED NATIONS ENVIRONMENTAL PROGRAM MEDITERRANEAN ACTION PLAN
<i>UoM</i>	UNION OF MUNICIPALITIES
<i>WaCT</i>	WASTE WISE CITIES TOOL
<i>WES</i>	WATER AND ENVIRONMENT SUPPORT
<i>WFD</i>	WASTE FLOW DIAGRAM
<i>WWT</i>	WASTE WATER TREATMENT

1 INTRODUCTION

1.1 CONTEXT OF THE ACTIVITY

According to a study carried out by MedWaves the UNEP/MAP Regional Activity Centre for SCP (former SCP/RAC) under the EU-funded Marine Litter Med project, each Lebanese resident on average consumes 596 Single-Use plastic bags (SUPBs) per year. This rate of consumption is quite high in comparison with other countries in the region e.g. Morocco 800-900 (before the ban), Tunisia 380, or Egypt 136. This results in an untold number of plastic bags entering marine ecosystems where they may cause various problems to biota.

After the preliminary discussions that the WES project had with the Ministry of the Environment (MoE) and the Ministry of Industry (Mol), both ministries supported the implementation of a WES national activity which should contribute to the gradual phasing out of single use plastic items in Lebanon by taking into account, on the one hand, the environmental aspects and, on the other hand, the technical and industrial challenges of the plastic industries. This technical assistance mission should start with the analysis of the single-use plastics “scene” in the country (data analysis/database, sector assessment, technical measures accompanying the conversion of plastic manufacturers, cost benefit analysis for the phasing out of plastic, etc.), leading to proposing concrete actions (i.e. legal texts or policy action plans) for the progressive phasing out of SUPs, and finalizing, with the provision of evidence based advise, a nationwide strategy for reducing and eventually banning production and/or use of certain single-use plastic items in the country.

This WES national activity is entitled “Policy support to address single-use plastic items in Lebanon”. The activity falls under the theme "Curbing Plastic Pollution & Marine Litter ", and sub-theme “Addressing single-use plastics”. These Terms of Reference (ToR) present the tasks proposed in this activity and it has been confirmed by the WES National Environment Focal Point that it is complementary to previous work conducted by the UNDP in recent years and does not overlap with other activities.

1.2 MAIN OBJECTIVES AND EXPECTED RESULTS

The objective of this activity is to provide technical assistance to the Ministry of Environment of Lebanon to address Single-Use Plastic Items (excluding plastic bags¹). The core of this activity is to enhance the country’s awareness and capacity to respond to the challenges posed by plastic pollution /waste, with emphasis on SUPs.

The specific objectives are:

- Improving the access to accurate information on production and recycling of plastics and the involved relevant industries.

¹ Taking into account the specific focus of the EU-funded Marine Litter Med II (on single-use plastic bags) WES activity shall then focus in SUPs other than plastic bags.



- Analysing the socioeconomic effects of policy measures such as reducing or banning certain single-use plastic products or promoting alternative solutions, including single use, non-plastic alternatives or reuse options.
- Facilitating sector dialogue with key stakeholders.
- Identifying a nationwide strategy for the gradual ban of SUPs.

1.3 SCOPE OF THIS REPORT

This report comprises the first stages of the activity notably the kick-off Meeting, the inception meeting as well as initial research on related initiatives. The selection of SUPs to be tackled throughout the activity, i.e. on-the-go food and beverage SUPs has been argued and agreed by main stakeholders. An initial situation on them is provided in this report.

2 TASK 0- KICK-OFF MEETING

The Kick-off meeting (KOM) took place on 17th March 2022 and counted with the participation of the Ministry of Environment, the EU Delegation and the WES team, among others. The agenda, list of participants and consolidated presentations can be found as Annex I.

The meeting served to present the specific tasks and steps of the national WES activity, as well as exchanging about the current situation with plastic waste in the country. Meeting participants acknowledged the importance of the topic in the country, as well as the need to adopt a pragmatic approach given the delicate socioeconomic situation in the country. Some of the points highlighted are:

- Since the crisis, plastic manufacturers have raised in the country, focusing on the export market.
- Collection at source has increased, the industry is asking for material to be recycled.
- However, it seems there is a decrease in the quality of recycling, probably due to the low currency.
- At governmental level, a number of reforms is ongoing, including taxes on waste.

As for the WES activity, an initial proposal was made to focus on on-the-go food and beverage SUPs, since it would be pragmatic focusing on a specific economic sector and group of stakeholders, and those SUPs can be progressively reduced. In relation to the tasks and methodology, there was a general agreement. Particularly it was convened that a consultation workshop with main stakeholders would take place after the baseline report, where findings and discussion on potential measures would take place.

3 TASK 1- INCEPTION MEETING

The inception meeting took place on 4th of May 2022 and enlarged the participation to other key stakeholders, particularly the ministry of industry and international organisations active in the country. The agenda, list of participants and consolidated presentations can be found as Annex II.

The WES non key experts delivered the main content for the meeting. Firstly, Mr Pedro Fernández introduced the participants to the Guidelines to tackle single-use plastic products (SUPs) in the Mediterranean region², developed in the framework of the Barcelona Convention. The reason is that the WES activity will follow the roadmap established in such document. Hence, it was important to have a common understanding on the approach and tasks that will follow. Secondly, Mr Sammy Kayed presented the proposal for the selection of 4 SUPs to be tackled in the activity. As anticipated, they relate to on-the-go food and beverage sectors. Rather than 4 items, the proposal was to select 4 categories as considered in the regional guidelines, i.e.:

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

TABLE 3-1: SELECTED CATEGORIES OF SUPS

Next, he provided a snapshot of the value chain for these SUPs, including production, consumption and end-of-life treatment (see chapter 4.1). For this, recent and ongoing initiatives were summarised. Finally, the calendar of tasks was presented.

As for the discussion, there was a confirmation of the methodology and the timeframe of the activity. International organisations such as World Bank and UN Habitat actively contributed by explaining their initiatives and planned activities. It was proposed that there would a regular exchange among them and WES team to align actions and cooperate to the maximum extent possible. Hence, the WES team would circulate this inception report to all participants.

² Available at: https://www.medwaves-centre.org/wp-content/uploads/2022/05/211203_guidelines_eng-4.pdf



4 BACKGROUND INFORMATION ON SUP'S IN LEBANON

4.1 OVERVIEW OF THE BASELINE SITUATION OF SELECTED SUPS

In the first stage of the activity, initial research on the situation of the 4 on-the-go food and beverages SUPs was conducted, in order to inform the selection of these items and start working on the baseline report, which will come after the inception phase. The main aspects are detailed below.

Production in the country. Currently there is no available comprehensive national statistics of plastic industries and production in Lebanon however there are some indicative statistics. According to the association of Lebanese Industries, as of 2015, 51 plastic companies are officially registered. Among them, 34 industries manufacture single-use plastics (UNDP, 2022).³ The largest fraction are specialized in food packaging with 11 companies making plastic cups, take-away material, and cutlery followed by those making containers and bottles at 9 companies making water bottles, detergent bottles, and water containers (UNDP, 2022).⁴ From the balance of import and export, 283,832 tonnes/year (2015-2019 average) of plastics remain in Lebanon (UNDP, 2022)³ and 120,382 tonnes/year of plastic virgin feedstock (also 2015-2019 average) are estimated to be used as single use plastics such as packaging (UNDP, 2022).³

Consumption patterns in the country are affected tremendously by the current economic crisis and the COVID-19 pandemic. Waste generation has significantly decreased with cities seeing 20-30% less waste produced than the 2019 baseline (ELARD, 2021 & Tripoli Landfill Operator, 2021).⁵ A recent study found a) the majority of respondents in Lebanon say that it would be fair to pay more for products in a package made of biodegradable materials and b) there has been a small increase in the use of reusable products during the COVID-19 pandemic compared to before the pandemic (Gareiou et. al., 2022).⁶ In a recent survey with around 30 key public and private sector stakeholders involved in the plastic sector, over 80% strongly agree that plastic pollution is a serious problem requiring an urgent solution (Kayed, 2021).

The selected 4 SUP categories in the food and beverage sector are put on the market (offered to customers without any additional charge) mostly by two kind of economic operators: a) primary delivery services, including companies such as Toters, Knock Knock, Gozilla and Shabeeb along with b) primary "take-away" providers, including companies such as Starbucks and other coffee franchises, McDonalds and other fast food chains, and fruit juice businesses.

As for end of life practices 69% of all plastic waste is considered to be single used items (bags, containers and packaging waste) (UNDP, 2022)⁷. There are reportedly around 4,000 scavengers

³ United Nations Development Program, Toward Plastic Circular Economy in Lebanon, 2022

⁴ United Nations Development Program, Toward Plastic Circular Economy in Lebanon, 2022

⁵ ELARD, Provision of Services of for the Preparation of an Analysis of the Plastic Sector in Lebanon, 2021

⁶ Gareiou, Z.; Chroni, C.; Kontoleon, K.; El Bachawati, M.; Saba, M.; Herrero Martin, R.; Zervas, E. Awareness of Citizens for the Single-Use Plastics: Comparison between a High-Income and an Upper-Middle-Income Economy of the Easter Mediterranean Region, Greece and Lebanon. Sustainability 2022, 14, 1912. <https://doi.org/10.3390/su14031912>

⁷ United Nations Development Program, Toward Plastic Circular Economy in Lebanon, 2022

working across Lebanon with about 38% of all sorted plastic waste being sorted by scavengers followed by the two large sorting facilities in Greater Beirut (Amroussieh and Karantina) and the various OMSAR managed sorting plants (EDESSA, 2020).⁸ Approximately 47,000 tonnes of plastic waste is sorted yearly in Lebanon with 16% of the sorted plastic waste being recycled (EDESSA, 2020).⁷

4.2 REGULATORY FRAMEWORK

Although there are many legal instruments that bear on SWM, there are only three that address the sector specifically and have been acted on: Decree 8735 of 1974 assigns SWM as a municipal responsibility, Decree 9093 of 2002 provides municipalities with an incentive to host a waste management facility, and the Integrated Solid Waste Management Law (ISWML) of 2018 which is comprised of several chapters covering key parts of ISWM. A framework law for the protection of the environment was adopted in 1988 and amended in 2002 (Law 444, 8/8/2002), which defines the basis and norms for environmental protection, but does not provide details of any regulations for SWM (Sweepnet, 2014,⁹ Lebanese Center for Policy Studies,¹⁰ 2018 & HBS: The State of Waste in Lebanon, 2019).¹¹

Despite the presence of these notable laws, enforcement is challenging due mostly to staffing constraints, lack of proper training, low levels of fines, political interferences, lack of trust between the public and the government, and financial constraints in part due to hyperinflation of the local currency. Generally, studies critique regulations as lacking in clarity and precision, responsibilities are not well-defined, and coordination between relevant public authorities is minimal.

The most important policy established for plastic pollution, the 2018 ISWML, was a step in the right direction but it also showcases the shortcomings of not effectively enforcing legislation. The law comprises several chapters covering institutional setup, management of non-hazardous and hazardous waste, financing of national strategies and local government waste management initiatives, and responsibilities and penalties related to violations of waste management laws. As synthesized by the UN FAO, the institutional framework for ISWM envisages *(i) the development of a related National Strategy; (ii) preparation of local solid waste management programs by each local administration; (iii) creation of a coordination committee under the chairmanship of the Minister of Environment and with the membership of the relevant official concerned bodies and environmental organizations aiming at coordinating on issues related to the solid waste sector; (iv) establishment of a National SWM Authority with the powers of preparing the technical and administrative terms and conditions for central projects, environmental impact assessment studies, supervising the implementation of central projects, and coordinating with the Minister of Environment on joint projects and those proposed by local administrations.* However, despite its ambitious aims and name the law does not effectively integrate the waste sector seeing that it doesn't adequately address aspects such as waste generation, segregation, transfer, sorting, recovery, treatment, disposal, source separation, and waste prevention

⁸ EDESSA, Data Survey on Plastic Transformation, Recycling, and Waste Composition in Lebanon, 2020

⁹ SWEEPNET, Country Report on the Solid Waste Management in Lebanon , 2014

¹⁰ Zeina Alba, A Wasted Waste Law, The LEbanese Center for Policy Studies, 2018

¹¹ Jacob Boswall, Lebanon: The State of Waste, Heinrich Boel Stiftung, 2019



measures. As a result of the economic and political crisis, the SWM coordination committee, which was mandated under the 2018 ISWML, has not been convened, consulted, or utilized since early 2020 as indicated in interviews held in 2021 with stakeholders that hold a seat in the committee. What strikes the greatest concern in the ISWML, is that it doesn't incentivize or create a preferential course for SWM scenarios that are environmentally and socially more responsible. However, ISWML does lay down a skeleton framework which can be more easily built upon once the government is fully re-established and better able to take policy action.

TABLE 4-2: POLICY AND LEGISLATION

Initiative	Position
Decree-Law No. 8735 of 1974	Municipalities are responsible for the collection and disposal of household wastes, and the location of waste disposal sites should be approved by the health council of the Mohafaza.
The Municipal Law of 1977 legislative decree No. 118, Article 49	Authorizes municipal councils to build solid waste disposal facilities.
Decree No. 9093 of 2002	Provides financial incentives to municipalities for hosting SWM facilities or landfills. In particular, municipalities who agree to host a sanitary landfill or a SWM facility would ,according to the decree, receive five-folds their annual allocation from the IMF and 10-folds this allocation in case the facility serves 10 municipalities or more. To date, the decree has never been implemented.
Law 444 of 2002	A broad environmental protection law with 7 parts divided into 68 articles. The environmental protection provided for in this Law in particular deals with protection of the coast and marine environment from pollution regarding both coastlines, terrestrial ecosystems, and natural resources from pollution hazards and the protection of territorial waters from pollution risks.
Decree No. 2275 of 2009	Solid waste issues fall under the Service of Urban Environment (Department of Urban Environmental Pollution Control) at the Ministry of Environment. Notwithstanding resources availability, the Department should (1) review all studies and tender documents related to solid waste and wastewater treatment plants, (2) participate in committees for the reception of works linked to SWT facilities and landfills, (3) prepare and formulate master plan for the management of MSW and (4) define environmental limit values for the disposal of non-hazardous solid waste (and liquid waste) in water bodies and on soil.
Integrated Solid Waste Management Law (ISWML) of 2018	This Law consisting of 39 articles aims at creating an integrated framework for solid waste management to preserve the environment based on the principles of sustainability, awareness, and transparency.

4.3 RECENT AND ONGOING INITIATIVE RELATED TO THE WES NATIONAL ACTIVITY

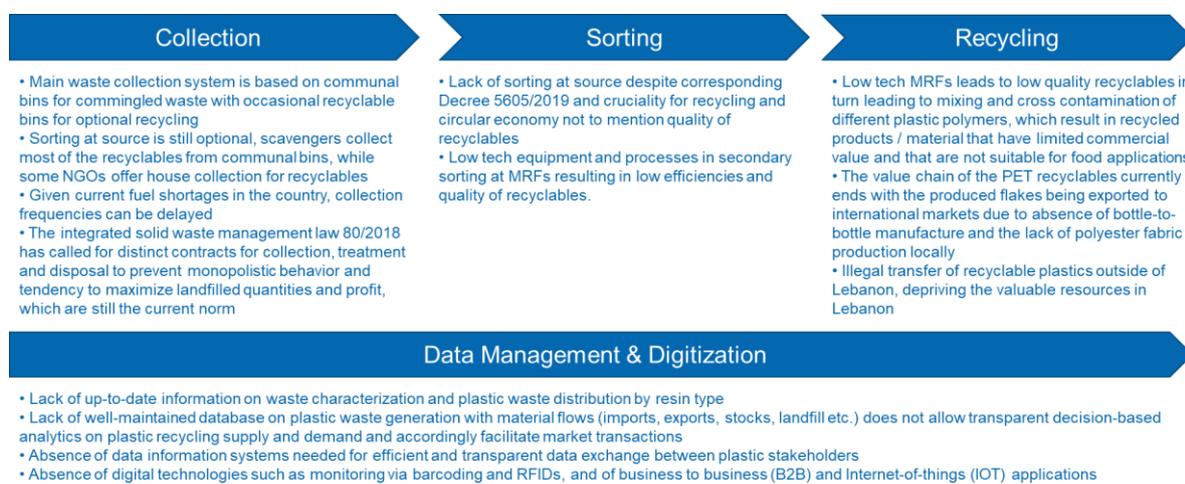
Since the drafting of the Terms of Reference of this activity it was considered crucial to liaise with other initiatives in order to avoid overlap, and build on recent study results. For this, the following initiatives have been reviewed and bi-lateral meetings held to establish a basis for future collaboration.

4.3.1 UNDP

UNDP is active in the country and on the topic through two main projects:

- Provision of services for the preparation of an analysis of the plastics sector in Lebanon
- Assessment of plastics waste streams and the possibility of using small-scale magneto-pyrolysis technology in Lebanon

Based on this work, UNDP suggests the following key challenges in the plastic value chain:



Through consultation with stakeholders, UNDP proposes the following Action Plan Framework:

ID	Actions	Responsibility	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Multi-Term Interventions													
MTI-1	Conduct material flow analysis (MFA) for plastics	MOE											MTI-1
MTI-2	Sorting at source and development of microenterprises, cooperatives and NGOs for Setup and maintenance of online platform for sellers and buyers	MOE,Municipalities,NGO											MTI-2
MTI-3	First generation Ecotax (resin and non-resin imports)	ALI											MTI-3
MTI-4	First generation Ecotax (resin and non-resin imports)	MOE,MOF,SWM Actors											MTI-4
Short-Term Actions													
STAP-1	Plastic waste baseline database	MOE,SWM Actors,Recycling Industry,Customs											
STAP-2	Full assessment of SWM facilities	MOE											
STAP-3	EPR including Deposit-Refund Scheme	MOE,Business Institutions											
STAP-4	Upgrade of current MRF facilities	MOE,SWM Actors											
Long-Term Actions													
LTAP-1	Introduce new recycling technologies	MOE,Recycling Industry											LTAP-1
LTAP-2	Second generation Ecotax (all plastic packaging)	MOE,MOF,SWM Actors											LTAP-2
LTAP-3	Introduce ban on local use	MOE											LTAP-3

TABLE 4-3.1: UNDP ACTION PLAN FRAMEWORK

Currently UNDP is providing support to two companies selected to increase their recycling capacity, for example by fostering cooperation across the value chain to recover empty water bottles through drop-off facilities and upgrading the capacity of their recycling operations.

4.3.2 PROBLUE PROGRAMME, WORLD BANK

Through ProBlue trust fund, World Bank is implementing the project Building Capacity to Prevent and Reduce Pollution in Marine Environments in Lebanon. The objectives of this technical assistance to the Ministry of Environment are: (i) establish a baseline for monitoring various marine sources of pollution; (ii) upstream analysis of key sources of marine litter (ML); and (ii) build national capacity to prevent and reduce pollution in marine environments. The project includes two phases:

1. Phase 1. March 2021- March 2022

- i. **A baseline survey on the sources and pathways of marine litter was established:**
 - 1st round of terrestrial, beach and marine surveys of marine litter have been carried out between April and August 2021 in 2 pilot cities of Tyre and Byblos. The surveys included: two terrestrial waste surveys implemented using the Waste Wise Cities Tool (WaCT) and the Waste Flow Diagram (WFD), a beach accumulation survey at four sites located in these 2 cities, a marine survey through an indicative assessment of marine litter on the seafloor, in the surface waters and in sediments of 4 selected sites.
 - “standing stock” survey of marine litter at 24 sites along the coast of Lebanon was conducted.
 - 2nd round of marine litter surveys was conducted to incorporate seasonality and strengthen links between solid waste management leakages and plastics. As such, between September and November 2021, the following surveys were conducted: “Accumulation” beach surveys in all 4 sites previously surveyed, “Standing-Stock” in all 24 sites along the coast of Lebanon previously surveyed, WFD surveys in 5 additional cities to cover more hotspots identified by the 1st round of “Standing-Stock” surveys.
- ii. **An action plan for marine litter reduction was developed including Short, Medium, and Long-Term Actions** was prepared and was subject to extensive discussion with all concerned stakeholders (see table below). In addition, 2 capacity development tool kits were prepared covered priority actions identified in the action plan namely: (i) modalities for establishing the Marine Litter Prevention Office at MoE, and (ii) modalities for supporting local action.

TABLE 4-3-2: SHORT, MEDIUM AND LONG TERM ACTIONS ML ACTION PLAN

ID	Action	Description	Responsibility
SHORT-TERM ACTIONS			
ST-1	<i>Establishment of Marine Litter Prevention Office (MLPO) by 2023</i>	<p>Marine Litter Prevention Office (MLPO)- The focal point for marine litter management</p> <ol style="list-style-type: none"> 1. Establishment and update of the Marine Litter pollution level. 2. Coordination of Technical Assistance (TA), information, and funding on ML. 3. Use of EPR to avoid certain types of marine litter, most notably single-use packaging items and textiles. <p>(a) Introducing EPR legislation for packaging waste by 31.12.2022. An extended producer responsibility instrument creates incentives/ a responsibility to provide recycling facilities (e.g., kerbside collection) and collection centres; the provision of kerbside collection of recycled materials promotes separation of metal, plastic, glass, and paper packaging for recycling.</p> <p>(b) Target for plastics recycling 20% by 31.12.2025 and 35% by 2030 (The target will be reviewed when all the relevant legislation will be in place).</p> <ol style="list-style-type: none"> 1. Follow up of the terrestrial waste surveys (Waste Wise Cities Tool (WaCT) and Waste Flow Diagram (WFD)). Marine surveys, focused on determining the type of waste that end in the marine waters and assessing their pathways from the sources identified. <p>Monitoring of sewage and watercourses for microplastics.</p>	MoE, all concerned stakeholders (i.e., private enterprises)
ST-2	Implement ML prevention actions in the 2 pilot areas (Tyre and Byblos)	<ol style="list-style-type: none"> 1. On-going and regular clean-up campaigns 2. Consistent and sustain Awareness campaigns for ML issue 3. Fishing for litter: Combined incentives to encourage action and develop new products from waste. 4. Identify priority waste management measures 	MoE, Municipalities, NGOs

ID	Action	Description	Responsibility
MEDIUM-TERM ACTIONS			
MT-1	Economic incentives/ taxes targeting consumption	Use of economic incentives to make market signals part of the solution - i.e., ensure that plastic has a price and is therefore more widely recognised as a valuable resource – e.g., apply deposit-refunds to bottles, and charges/taxes to plastic bags, disposable cutlery, and other one-use items.	MoE, NGOs
MT-2	Waste management measures	Legislation and investment in waste collection infrastructure (at ports), waste management infrastructure and wastewater treatment facilities	MoE, WM and WWT enterprises, Municipalities
MT-3	Ban on single-use plastics	Ban on single-use plastics (e.g., plastic bags, cotton bud sticks, cutlery, plates, straws, beverage stirrers, food and beverage containers made of expanded polystyrene, beverage containers made of expanded polystyrene and cups for beverages made of expanded polystyrene) by 31.12.2025.	MoE, Mo Economics & Trade, NGOs
LONG-TERM ACTIONS			
LT-1	Research into product design	Research into product design to facilitate reuse, repair, remanufacture and recycling, and complement this by providing more information on the plastic composition of products.	MoE, Private Enterprises, manufactures, Universities
LT-2	Transparency and labelling	Improve transparency on the chemicals contained in plastics – to help with decisions on remanufacture and recycling. In addition, transparency on where personal care and cosmetic products (PCCPs) do and/or do not contain plastics. Explore the implications for additives such as flame retardants, plasticisers, pigments, fillers, and stabilisers.	MoE, Private Enterprises, manufactures
LT-3	Improved legislation	Provide clear definitions of polymers, waste, and secondary raw materials. Manufacturers need to design their products and packaging to fit into existing recycling systems.	MoE, Private Enterprises, manufactures
LT-4	Improved implementation	There is a need for better implementation of existing legislation on the release of litter, from terrestrial sources and at sea, e.g. The MARPOL Convention, Port Reception Facilities, etc.	MoE



2. Phase 2. March 2022- March 2024

- i. **Establishing the “Marine Litter Prevention Office” (MLPO)** at MoE. The MLPO will be responsible for establishing a collaborative platform to coordinate on-going activities related to ML in Lebanon and developing relevant communication and outreach tools for improving coordination of ML information and activities at the national level. The MLPO will also ensure that an extensive policy dialogue is made to engage concerned stakeholders and the different regions on key policy reforms needed for preventing marine litter and ensure the integration of ML in the strategy and action plan for Integrated Solid Waste Management of the MoE
- ii. **Develop and implement priority regulatory framework for ML prevention.** Building upon the action plan for ML prevention, develop and implement priority regulations based on the multi-stakeholders’ engagement facilitated by the MLPO, including:
 - a. develop economic instruments targeting production and consumption of ML and SWM at large, including cost recovery for SWM and Extended Producer Responsibility (EPR).
 - b. develop regulations for the implementation of identified economic instruments through providing needed legal and technical support to MoE.
 - c. support knowledge sharing and engage a broad range of stakeholders in the development and implementation of the policy reform agenda for ML prevention.

4.3.3 REMAL PROJECT, UN HABITAT

For this project Wuppertal Institute and UN-Habitat build on their strong ties and experiences developed through the collaboration under the IKI-funded Urban Pathways project. This proposal is a result of that work, which is reflected in the organizational structure. Wuppertal Institute as the applicant and implementing partner will contribute its large expertise in transformative policy and circular economy research. It will contribute to the development of national and local waste management instruments and policy strategies, and add the experience in putting into practice waste prevention and circular economy approaches in different regions. Wuppertal Institute is collaborating and in contact with all other implementing partners (within and outside of Lebanon) to ensure the success of the project. Within Lebanon the UN-Habitat country office (supported by Headquarter) will be the main implementing partner on the ground, and the link at national level to the Ministry of Environment and the Ministry of Interior and Municipalities. Additional local partners (subcontracted by UN-Habitat) will be engaged during the project (for the implementation of pilot projects, the feasibility studies and awareness raising). TU Berlin is an additional knowledge partner, adding urban planning expertise and experience in co-developing pilot solutions with cities in the Global South.

In order to enhance municipal solid waste management and resource efficiency in coastal Lebanon and reduce Marine Litter in the Eastern Mediterranean Sea (impact), integrated sustainable waste management systems have to be planned and piloted in a participatory process in Lebanese coastal Unions of Municipalities by municipality staff whose capacity on the topic needs to be built (Outcome).

This process will be facilitated through the assessment of baselines on solid waste management by each target Union of Municipality (UoM), which are used as basis for evidence-based decision making (Output I) and lead to the successful implementation of pilot projects to improve management of plastic waste and avoid marine litter in each UoM and the identification of the feasibility of infrastructure projects (Output II) together with local partners. To ensure sustainability of the intervention and ownership by the target population, additional activities will be conducted to raise public awareness on ISWM and marine litter in general and how the two relate to each other in particular (Output III). Finally, based on the experiences and lessons learnt of the project so far and building on the increased public awareness for ISWM and marine litter, policy recommendations will be formulated so that relevant national institutions have started addressing ISWM and marine litter challenges (Output IV). The underlying assumptions of this results chain are the following: ReMaL will be able to build the capacity of relevant personnel and that personnel is willing to learn and implement the project activities based on the acquired knowledge. Furthermore, ReMaL assumes that it will be able to include all relevant stakeholders in the process and that stakeholders are willing to cooperate. Additionally, it is assumed that the awareness raising activities are targeting the right audience and are willing to change their mindset. The final assumption is that the developed policy recommendations will be taken up. The assumptions are based on the conversations and experience with the relevant stakeholders in Lebanon (also see official letter of support) and the expertise of the implementing partners in other countries. To increase the likelihood of the accuracy of these assumptions the project team will ensure a thorough preparation including personnel and stakeholder mapping and continuous exchange with the already known and newly identified actors. The below figure provides the intended Impact, outcome, and outputs of the project.

Impact(s) Enhanced municipal solid waste management and resource efficiency in coastal Lebanon is reducing Marine Litter in the Eastern Mediterranean Sea.			
Outcome Integrated sustainable waste management systems have been planned and piloted in a participatory process in Lebanese coastal Unions of Municipalities by municipality staff whose capacity on the topic has been built, as well as national framework conditions to address marine litter improved.			
Output I Baselines on solid waste management are available in each UoM and used as basis for evidence-based decision making.	Output II Pilot projects to improve management of plastic waste and avoid marine litter are successfully implemented in each UoM, as well as feasibility of infrastructure projects identified.	Output III Public awareness on sustainable waste management and marine litter prevention is raised.	Output IV Relevant national institutions have started addressing ISWM and marine litter challenges through developed policy recommendations.

FIGURE 4-3-3: INTENDED IMPACT OUTCOME AND OUTPUTS OF THE REMAL PROJECT

5 CONCLUSIONS

The initial stage of the activity has confirmed the appropriateness of addressing specific SUPs in Lebanon, reaching consensus across key stakeholders active in the topic of plastics and waste. Whereas a number of activities are addressing the plastic value chain and they provide interesting insights for the baseline study, WES activity will focus specifically on the food and beverage sector, and more particularly on take-away and delivery practice. This allows for working closely with stakeholders that are able to make a change, considering a wide range of measures, from soft policies (e.g. voluntary agreements) to regulatory tools.

Next phase of the project is *Task 2: Define the baseline situation (production and consumption) for the selected SUP items in Lebanon*, planned to be concluded by June 2022. Based on this, a consultation workshop (Task 3) will be organised, gathering stakeholders of the value chain to discuss potential measures.



6 ANNEXES

6.1 KOM AGENDA

Beirut Time	
09:30	Connecting to the platform
10:00	Welcome and opening remarks <i>Prof. Michael Scoullas, WES Team Leader</i> <i>Eng. Bassam Sabbagh, Head of Urban Environment Service, Ministry of Environment & WES Focal Point – Lebanon</i> <i>Mr. Jihad Jradi, Programme Manager, Delegation of the European Union to Lebanon</i>
10:15	Presentation of the activity and general discussion Presentation of the WES Project (5 min) <i>Mr. Anis Ismail, WES Key Environment Expert</i> General framework of the national activity (15 min) <i>Ms. Basma EL ARAB - Project Assistant– UNPD/Ministry of Environment, Lebanon</i> Presentation of the WES national activity N-E-LB-2b (15 min) <i>Mr. Pedro Fernandez, Senior International Expert in Plastic Pollution Prevention Measures, WES NKE (SCP/RAC)</i> Q/A and discussion (20 min) Communication, impact monitoring and stakeholder participation (10 min) <i>Ms. Lisa Papadogeorgaki, WES Communication and Networking Expert, and</i> <i>Dr. Emad Adly, WES Stakeholder Engagement and Impact Assessment Non-Key Expert</i> Q/A and discussion (10 min)
11:30	End of meeting

6.2 KOM LIST OF PARTICIPANTS

COUNTRY	TYPE OF INSTITUTION (please use the options provided*)	TITLE (Mr/Ms)	FIRST NAME	LAST NAME	POSITION/ FUNCTION	ORGANISATION/ INSTITUTION
LEBANON	MINISTRY REPRESENTATIVES	Mr.	Bassam	SABBAGH	Head of Urban Environment Service, WES Focal Point - Lebanon	Ministry of Environment
LEBANON	GOVERNMENT AGENCIES	Ms	Basma	EL ARAB	Project Coordinator	UNDP
LEBANON	EUROPEAN UNION DELEGATION (EUD)	Mr.	Jihad	JRADI	Programme Manager	Delegation of the European Union to Lebanon
SPAIN	WES PROJECT	Ms	Magali	OUTTERS	Team Leader Policy Area	SCP/RAC / WES Project
SPAIN	WES PROJECT	Ms	Marta	JUNQUERA	WES Project manager	SCP/RAC / WES Project
GREECE	WES PROJECT	Prof.	Michael	SCOULLOS	Team Leader	WES Project
TUNISIA	WES PROJECT	Mr.	Anis	ISMAIL	Key Environmental Expert	WES Project
EGYPT	WES PROJECT	Dr.	Emad	ADLY	Stakeholder Engagement and Impact Assessment Non-Key Expert	WES Project
GREECE	WES PROJECT	Ms	Lisa	PAPADOGEOGAKI	Communication and Networking Key Expert	WES Project

SPAIN	WES PROJECT	Mr.	Pedro	FERNANDEZ	Senior International Non-Key Expert in Plastic Pollution Prevention Measures	WES Project
LEBANON	WES PROJECT	Mr.	Sammy	KAYED	Senior Environmental Research Non-Key Expert	WES Project
GREECE	WES PROJECT	Ms	Evie	LITOU	WES Project Coordinator	LDK Consultants / WES Project
GREECE	WES PROJECT	Ms	Eugenie	CHRISTOPOULOS	WES Project Administrator	LDK Consultants / WES Project
GREECE	WES PROJECT	Ms	Melina	MIKELIS	WES Assisting Communication Non-Key Expert	LDK Consultants
GREECE	WES PROJECT	Ms	Anastasia	RONIOTES	Head Officer / WES Technical backstopper for Pollution Prevention/Environment activities	MIO-ECSDE / WES Project
GREECE	WES PROJECT	Ms	Alaa	ABOU DAHER	Project Officer / WES backstopping	MIO-ECSDE / WES Project



6.3 KOM PPTS

The PPTs of the KoM meeting can be accessed via WES website: https://www.wes-med.eu/activities_type/n-e-lb-2b-policy-support-to-address-single-use-plastic-items-in-lebanon/

6.4 INCEPTION MEETING AGENDA

AGENDA

10:30 Welcome and opening remarks

*Eng. Bassam Sabbagh - Head of Urban Environment Service, Ministry of Environment & WES
Focal Point – Lebanon*

Mr. Anis ISMAIL, WES Environment Expert

10:45 Tour de table

11:00 Guidelines to tackle single-use plastic products in the Mediterranean region and selection of 4 items for WES activity in Lebanon

Guidelines to tackle single-use plastic products (SUPs) in the Mediterranean region (20 min)

Mr. Pedro Fernández, Senior Expert in Plastic Pollution Prevention Measures, WES NKE

Proposal and selection of 4 SUPs for WES activity in Lebanon (15 min)

Mr. Sammy Kayed, Senior Environmental research expert, WES NKE

Q/A and discussion (20 min)

Plan of work (5 min)

Mr. Pedro Fernández

12:00 End of meeting

6.5 INCEPTION MEETING LIST OF PARTICIPANTS

COUNTRY	TYPE OF INSTITUTION (please use the options provided*)	TITLE (Mr/Ms)	FIRST NAME	LAST NAME	POSITION/ FUNCTION	ORGANISATION/ INSTITUTION
LEBANON	MINISTRY REPRESENTATIVES	Mr.	Bassam	SABBAGH	Head of Urban Environment Service, WES Focal Point - Lebanon	Ministry of Environment
LEBANON	MINISTRY REPRESENTATIVES	Mr.	Ramzi	Shasha	Chemical Engineer	Minsitry of Industry
LEBANON	MINISTRY REPRESENTATIVES	Ms.	Chantal	AKL	Environmental Engineer	Minsitry of Industry
LEBANON	INTERNATIONAL ORGANISATIONS AND PROGRAMMES	Mr.	Elie	MANSOUR	Head of Urban Planning and Design Unit	UNHABITAT
LEBANON	INTERNATIONAL ORGANISATIONS AND PROGRAMMES	Mr.	Farouk	MERHEBI	Consultant	World Bank
LEBANON	MINISTRY REPRESENTATIVES	Ms.	Jamila	AL-HADI	Environmetal Engineer	Ministry of Environment

LEBANON	INTERNATIONAL ORGANISATIONS AND PROGRAMMES	Ms.	Lamia	MANSOUR	Head of Environment Program	World Bank
SPAIN	WES PROJECT	Ms.	Marta	JUNQUERA	WES Project manager	SCP/RAC / WES Project
TUNISIA	WES PROJECT	Mr.	Anis	ISMAIL	Key Environmental Expert	WES Project
GREECE	WES PROJECT	Ms.	Lisa	PAPADOGEOGAKI	Communication and Networking Key Expert	WES Project
SPAIN	WES PROJECT	Mr.	Pedro	FERNANDEZ	Senior International Non-Key Expert in Plastic Pollution Prevention Measures	WES Project
LEBANON	WES PROJECT	Mr.	Sammy	KAYED	Senior Environmental Research Non-Key Expert	WES Project
GREECE	WES PROJECT	Ms.	Alaa	ABOU DAHER	Project Officer / WES backstopping	MIO-ECSDE / WES Project



6.6 INCEPTION MEETING PPTS

The PPTs of the inception meeting can be accessed via WES website: https://www.wes-med.eu/activities_type/n-e-lb-2b-policy-support-to-address-single-use-plastic-items-in-lebanon/