



Reduction of UOPs through Waste Management in a Circular Economy

Part I: Project Information

GEF ID

10803

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT **No**

NGI **No**

Project Title

Reduction of UOPs through Waste Management in a Circular Economy

Countries

Lebanon

Agency(ies)

World Bank

Other Executing Partner(s)

Ministry of Environment in Lebanon

Executing Partner Type

Government

GEF Focal Area

Chemicals and Waste

Taxonomy

Focal Areas, Chemicals and Waste, Persistent Organic Pollutants, Unintentional Persistent Organic Pollutants, Emissions, Open Burning, Industrial Emissions, Best Available Technology / Best Environmental Practices,

Green Chemistry, Waste Management, Sound Management of chemicals and waste, Disposal, Plastics, Climate Change, Climate Change Mitigation, United Nations Framework Convention on Climate Change, Enabling Activities, Nationally Determined Contribution, Climate Change Adaptation, Innovation, Livelihoods, Climate information, Influencing models, Demonstrate innovative approach, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Stakeholders, Civil Society, Academia, Non-Governmental Organization, Communications, Awareness Raising, Public Campaigns, Education, Behavior change, Private Sector, SMEs, Individuals/Entrepreneurs, Local Communities, Type of Engagement, Information Dissemination, Participation, Partnership, Consultation, Beneficiaries, Gender Equality, Gender Mainstreaming, Women groups, Gender-sensitive indicators, Gender results areas, Capacity Development, Participation and leadership, Access to benefits and services, Capacity, Knowledge and Research, Knowledge Generation, Learning, Adaptive management, Theory of change, Indicators to measure change, Targeted Research, Knowledge Exchange

Sector

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 0

Submission Date

3/24/2021

Expected Implementation Start

9/1/2022

Expected Completion Date

12/30/2026

Duration

52In Months

Agency Fee(\$)

841,552.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CW-1-1	Strengthen the sound management of industrial chemicals and their waste through better control, and reduction and/or elimination	GET	8,858,447.00	62,000,000.00
Total Project Cost(\$)			8,858,447.00	62,000,000.00

B. Project description summary

Project Objective

To reduce UPOPs emissions and improve solid waste management services in selected areas

Project Component	Compone nt Type	Expected Outcomes	Expected Outputs	Trus t Fun d	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
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Project Component	Component Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1: Strengthen Regulatory Framework and Capacities for Sustainable Waste Management in the Circular Economy	Technical Assistance	Outcome 1.1: Regulations and Incentive scheme for promotion and sustainability of circular economy	<p>1.1- Strengthened regulatory and institutional framework and capacities for adoption of Circular Economy.</p> <p>1.2- National product standards issued for most polluting waste streams releasing UPOPs.</p> <p>1.3- Enhancement and rehabilitation of infrastructure for UPOPs measurements and assessment.</p> <p>1.4- Updated National Implementation Plan for POPs endorsed by the Government of Lebanon.</p> <p>1.5- Improved understanding of all POPs and identification of proposed actions to effectively reduce POPs in the country.</p>	GET	1,940,000.00	2,200,000.00

Project Component	Component Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Demonstrations on 3R Practices and BATs/BEPs at Open Dumpsite in Selected Geographic Zones	Investment	Outcome 2.1: Circular economy principles to deliver global environmental benefits promoted, demonstrated, integrated, and mainstreamed	<p>2.1- BAT/BEP and Circular Economy concept are implemented at selected open dumpsites.</p> <p>2.2- Sustainable financing and business models developed and applied in the pilots.</p> <p>2.3- Cost and benefit of the available BAT/BEP measures for reducing UPOPs releases from open burning analyzed and adopted.</p> <p>2.4- Pilot demonstration activities in Lebanon promoting waste reduction, re-use, recycle undertaken.</p> <p>2.5- Action plan for closing open dumps is integrated in national ISWM strategy.</p> <p>2.6- Sustainable circular economy practices included in</p>	GET	5,996,617.00	56,000,000.00

Project Component	Component Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Project Monitoring and Evaluation	Technical Assistance	<p>Outcome 3.1: Project results monitored, adaptive management applied in response to needs identified and findings extracted.</p> <p>Outcome 3.2: Lessons - learned, experiences, and best practices extracted and disseminated at national level.</p>	<p>3.1- Project impact monitoring system identified and implemented.</p> <p>3.2-Adaptive management applied in response to needs and findings.</p> <p>3.3- Lessons learned, best practices and experiences assessed and disseminated to support replication.</p>	GET	500,000.00	1,000,000.00

Sub Total (\$)	8,436,617.00	59,200,000.00
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Project Management Cost (PMC)

GET	421,830.00	2,800,000.00
Sub Total(\$)	421,830.00	2,800,000.00
Total Project Cost(\$)	8,858,447.00	62,000,000.00

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Government of Lebanon	Public Investment	Investment mobilized	40,000,000.00
Donor Agency	European Union	Grant	Investment mobilized	22,000,000.00
Total Co-Financing(\$)				62,000,000.00

Describe how any "Investment Mobilized" was identified

The investment provided as co-finance by EU relates to recent, current, and planned future investments in reducing the amount of waste disposed, improving the quality of waste, and introducing national systems for cost-recovery. (EU Grant of \$22 million to the Government of Lebanon) The Government of Lebanon coordinated program for solid waste management in the services zones has demonstrable synergies with the World bank led project, with funding equivalent to US\$40 million over the duration 2022-2026. In this Context the Government of Lebanon will cover the costs of landfilling, sorting and composting at the solid waste facilities in the Union Municipalities of Tyre, Nabatieh-Shkif and Akkar, and will be implemented by the Office of State for Administrative Reform and the concerned Unions of Municipalities jointly with the Ministry of Environment.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
World Bank	GET	Lebanon	Chemicals and Waste	POPs	8,858,447	841,552	9,699,999.00
Total Grant Resources(\$)					8,858,447.00	841,552.00	9,699,999.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)PPG Required **true****PPG Amount (\$)**

273,973

PPG Agency Fee (\$)

26,027

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
World Bank	GET	Lebanon	Chemicals and Waste	POPs	273,973	26,027	300,000.00
Total Project Costs(\$)					273,973.00	26,027.00	300,000.00

Please provide justification

We would like to seek your approval for the PPG grant for Lebanon proposal 10803 to be increased to \$300,000 (instead of US\$ 200k limit imposed by the GEF portal during initial submission), considering that substantial efforts and resources will be required for the preparation of the proposed project, especially on the identification of the participating governorates and waste disposal sites and selection of circular economy/3R practices for waste reduction and BAT/BEPs for waste disposal site management for demonstrations under the project component 2. A higher PPG of US\$ 300k is necessary to support preparation of the proposed project due to specific project situation: i) large number of stakeholder meetings and studies needed for consultation and determination of the proposed Component 1 and 2 activities, ii) selection of candidate demonstration areas and dumpsites (from a large pool of 600 unauthorized dump sites) for Component 2 to be confirmed during project implementation, iii) Design of 3R practices and BAT/BEP for reducing UPOPs emission. Which are being developed first time in Lebanon, iv) ?High Risk? categorization of the project as per ESF requirements of the Bank, requiring preparation of detailed environmental and social documents, and v) associated support needed incremental operating cost of the Project Management Unit (PMU) for project preparation.

Core Indicators

Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
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Type/name of the third-party certification

Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
0	0	0	0

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE
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Indicator 5.3 Amount of Marine Litter Avoided

Metric Tons (expected at PIF)	Metric Tons (expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
	65,000.00		

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
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Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	0	2720000	0	0
Expected metric tons of CO ₂ e (indirect)	0	0	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)
Expected metric tons of CO ₂ e (direct)		2,720,000		
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting		2024		
Duration of accounting		20		

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)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

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)
Target Energy Saved (MJ)				

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 10 Reduction, avoidance of emissions of POP to air from point and non-point sources (grams of toxic equivalent gTEQ)

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)
20.00	20.00		

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)
	1		

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)
	5		

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	1,500	235,000		
Male	3,500	235,000		
Total	5000	470000	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

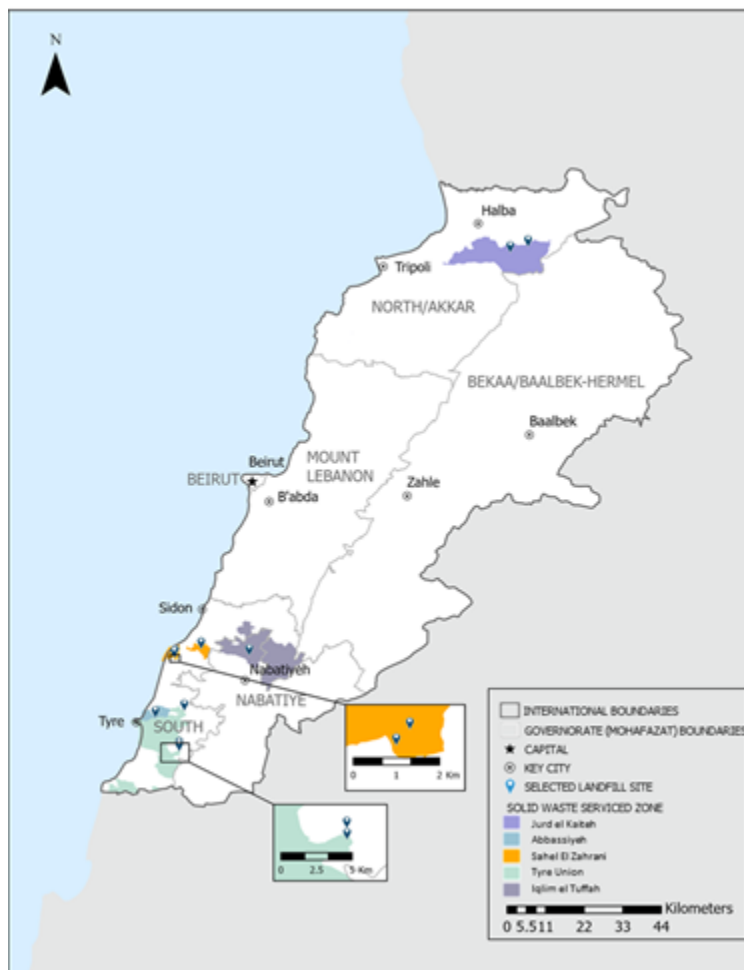
Indicator 10: The UPOPs emission is estimated as follows: (40 ?g TEQ/ ton of waste ? UPOPs emission factor to air) *500,000 tons of wastes=20,000,000 ?g TEQ/1,000,000= 20 g TEQ. The 500,000 tons of waste is expected to be reduced by 3R/circular economy practices and/or managed by BAT/BEPs at waste disposal sites/open dumpsites. The project is expected to improve waste management performance for 470,000 citizens that will produce an estimated volume of more than 500,000 tons of waste during the lifespan of the project (4 years). This waste will either be reduced through 3R activities or better managed at disposal sites where currently large parts of the waste is subject to open burning. The practice of open waste burning was a selection criterion for identification of potential waste

serviced zones to be included under the project. Indicator 5.3 updated to reflect 65,000 tons of plastic (this is around 13% of the waste at disposal sites based on the 2021 findings on waste characterization prepared by the WB/Problue baseline for marine litter in Lebanon in 2021. GHG emission reduction is a standardized indicator that we need to put as net emission reductions per year, hence we used the 136,000 ton/year figure in the result framework of the PAD. For the Bank GHG reduction is a corporate indicator, so pre-defined and in this case as ton/y. This unit of measurement cannot be changed. For the GEF Core Indicator sheet we calculated the cumulative figure for a period of 20 years, hence $20 \times 136,000$ makes 2,720,000 tons (cumulative) net GHG reductions.

Part II. Project Justification

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.



Serviced Zone	Dump site name	X	Y
Union of Municipalities of Tyre	Qana	35.31369	33.20159
	Deir Qanoun En Nahr	35.32696	33.29805
	Sadiqine	35.31384	33.19442
Union of Municipalities of Sahel el Zahrani	Sarafand	35.30374	33.43701
	Merouaniye	35.37007	33.45643

	Seksakiye	35.30084	33.43361
Municipality of Abbasiyeh	Abbesye	35.25299	33.28076
Union of Municipalities of Iqlim el Touffah	Houmine El-Faouqa	35.49299	33.43939
Union of Municipalities of Jurd El Kaiteh	Fnaydek	36.20734	34.48442
	Mishmesh	36.16165	34.46921

2. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Stakeholders as set out in the below attached Stakeholder Engagement Plan have been actively engaged in the project preparation phase. During project execution, the means and timing of continued engagement will be as per the Stakeholder Engagement Plan attached below. The Plan itself will be a ?living document? to be updated throughout the project implementation phase.

Stakeholder Engagement Plan:

The overall objective of this Stakeholders Engagement Plan (SEP) is to define a program for stakeholder engagement, including public information disclosure and consultation, throughout the entire project cycle. The SEP outlines the ways in which the project team will communicate with stakeholders and includes a mechanism by which people can raise concerns, provide feedback, or make complaints about the project and any activities related to the project. The involvement of the local population is essential to the success of the project in order to ensure smooth collaboration between project staff and local communities and to minimize and mitigate environmental and social risks related to the proposed project activities, particularly for Component 2. Activities under Component 2 of the Project will target specific geographical locations to implement 3R practices and demonstration activities for the closure and rehabilitation of open dumpsites. The preliminary geographical areas are presented in Table 1.1, noting that these sites will be confirmed during project implementation following more in-depth assessments. Accordingly, the stakeholders? identification process will continue during project implementation to ensure including all relevant stakeholders and organizations at the local levels.

Table 1: Potential service zones to be covered by the project

Serviced zones	Caza/Mohafaza	Open Dumps with open burning
Union of Municipalities of Tyre	Tyre/South	Qana
		Deir Qanoun
		Siddiqine
Municipality of Abbasiyeh	Tyre/South	Abbasiyeh
Union of Municipalities of Iqlim el Touffah	Nabatieh/ Nabatieh	Houmine el Faouka

Union of Municipalities of Sahel el Zahrani	Saida/South	Sarafand
		Marwaniyeh
		Saksakiyeh
Union of Municipalities of Jurd El Kaiteh	Akkar/North	Fnaydeq
		Mishmesh

A menu of possible 3R activities that can be implementing in each area includes:

- Awareness campaigns for implementing sorting at source at community level. Awareness raising and advocacy campaigns are needed along with capacity building and training of residents, decision makers, municipal police and collection contractors. The campaign must be implemented over a sufficient period of time to ensure adoption and sustainability.
- Provision of technical assistance to municipalities or union of municipalities for the preparation of SWM masterplans, feasibility studies, EIAs, needs assessment studies, etc. to improve the SWM in the region.
- Provision of infrastructure for collection and transport of separately collected waste from residential and commercial establishments. This includes the procurement of different types and sizes of bins (for different types of wastes), different types of trucks (compactor trucks, large pick-up trucks, small pick-up trucks, etc) machinery for waste handling such as bobcat, forklift, street cleaning equipment, etc.
- Implementing separate collection of agricultural waste and landscape leftovers and providing green waste shredders to reduce the amount of green waste going to landfill and use in compost production. Briquette manufacturing can also be used to compress organic material to be used for heating purposes.
- Promote household composting and provide needed composters and specific bins in select locations in rural areas and households that possess a garden or a backyard.
- Build dry material recovery facilities for recyclable waste or install sorting line for dry recyclables in existing facilities, if space is available. These will serve for the processing of separately collected recyclables through sorting and baling or shredding to reduce the volume and store them pending their sale in the local market.
- Build organic material composting facilities for separately collected food waste and agricultural waste. These facilities can be small to medium scale to cater for the collected organic fraction of the waste.

- Equip existing facilities with needed equipment to facilitate waste management and improve waste recovery and diversion rates (such as bag openers, trommel screens, ballistic separators, magnetic separators, compactors, shredders, etc).
- Invest in RDF processing lines at existing facilities to improve the quality of the produced RDF to be used ultimately in waste to energy facilities and improve diversion of waste away from dumps/landfills.
- Install PV solar system for existing facilities to reduce dependence on fuel needed to operate the site power generators. This will result in reduced operational costs that can be used to improve waste management within the facility and promote clean energy. The on-grid system can include the inverter, PV panels, cables, breakers, protection system, earthing, metering, and data management, all complete with all needed accessories.
- Build drop-off centers for recyclables, e-waste, furniture, tires, textile waste, and difficult to dispose of household and commercial waste, C&D, bulky materials, etc.

Brief Summary of Previous Stakeholder Engagement Activities:

The first consultation session during the project preparation phase was held at the MoE in Beirut on 18 January 2022 bringing together the key Municipalities of the potential targeted geographical areas of the project for the implementation of Component 2 activities. Around 20 persons attended the meeting, amongst which 4 women, and including H.E. the Minister of Environment, representatives of local authorities and World Bank's representatives. The table below summarizes the main discussions of this consultation meeting.

Date and Location	Stakeholders	Discussion
January 18, 2022, MoE	World Bank, MoE, municipalities of priorities areas, and environmental consulting firm	The meeting focused on elaborating the rationale and objectives behind this project, in addition to getting insights from stakeholders (mainly representatives from different municipalities). Some municipalities specified the awaiting challenges amid the financial crisis and the unbearable economic collapse. Other challenges shared by stakeholders were the availability of an area where the project will be implemented, and the behavior of local communities and residents regarding the establishment of waste facilities in their village (NIMBY syndrome). Other municipalities showed their willingness to commit to this project, as they acknowledge the positive consequences it will have on the Lebanese population and the environment.

An additional more inclusive online consultation session with identified stakeholders including vulnerable groups regarding the Environmental and Social Management Framework (ESMF) and the SEP was conducted on February 10th, 2022. The consultation session included 35 participants, of

which 18 were women, representing central government, local authorities, private sector, academia, NGOs and international organizations.

The main objective of the consultation was to present the ESMF as well as the Stakeholder Engagement Plan (SEP) and the Environmental and Social Commitment Plan (ESCP), and to seek the views and comments from stakeholders prior to disclosing the documents. The main issues and comments raised by various stakeholders included the following:

- It is critical to conduct robust feasibility studies for each sub-project to ensure they are sustainable from a financial point of view.
- Most stakeholders have raised the importance to implement the project with the highest levels of transparency and to engage with stakeholders throughout all stages of the project implementation including during site selection and projects selection, review of tender documents and terms of references; this is critical to re-establish trust between the population and the government entities, in this case MOE; projects should be selected on the basis of clientelism as it has happened in the past; PMU plays an important role in this aspect.
- It has been clarified that the grant from the Global Environment Facility (GEF) is for a total amount of USD 10 million to finance the two components of the project; about USD 6.5 million are available to implement projects at two (2) locations); Procurement activities will be carried out following the World Bank's system. PMU staff will be formed for this project to ensure the transparency of any procurement. TORs will be developed by the PMU.
- Stakeholders raised the importance to build MOE's capacity to be able to implement the ESCP especially given the current situation and financial crisis whereby MoE is severely understaffed and has limited resources.
- Stakeholders expressed concern in implementing projects that require a functional and independent judicial system and proper accountability and resources to enforce environmental and technical measures; stakeholders mostly referred to Refuse-Derived Fuels (RDF) and their use; any project related to waste-to-energy faces significant public opposition in Lebanon.
- Other stakeholders and particularly waste experts were however of the opinion that without RDF, it would be challenging to achieve significant diversion of wastes from landfills.
- Stakeholders generally welcomed the piloting nature of the project and expressed the importance to develop sustainable waste management models to be replicated in Lebanon.
- The example of the closure of the Bourj Hammoud dumpsite, one of the largest dumpsites in Lebanon that used to cover Beirut and Mount Lebanon was raised; significant problems were faced with waste pickers whom used to recover wastes from the site; this further re-emphasizes the importance to engage with waste pickers during project design to ensure their integration in the projects where applicable.

- Stakeholders also emphasized the critical role that the private sector and particularly the industrial sector plays in promoting circular economy principles and for creating a market for the recovery of materials; it is very important that Component 1 supports the creation of an enabling environment for circular economy and to provide incentives to the private sector to sustain their operations and create suitable market conditions; an example was provided of a major glass manufacturing industry that used to receive glass to produce recycled glass and which had to discontinue its operations because glass imported from Egypt was cheaper than recycled glass produced in Lebanon; this has led to the accumulation of glass wastes in the environment; recycled rubber in Lebanon is also currently more expensive from the one imported from Turkey for example; if this is not addressed, tires will continue to be burned leading to generation of UPOPs.
- Component 1 should also create a competitive environment for national recyclable products and provide protection from cheap imported products.
- Some stakeholders provided inputs to the Grievance Mechanism and explained successful experiences in other projects (eg. LEPAP) with the adoption of a multi-layered approach (first level complaint to the facility operator, second level to the municipality and third level to PMU).
- Stakeholders also asked about site selection and implementation criteria; it was clarified that the entry point to the project site would be through the dumpsite rehabilitation project but the 3R initiatives would be implemented on a wider area (eg. Caza or Union of Municipalities); it was highlighted that it is important to consider not only the dumpsite rehabilitation as a main element of site selection, but also whether the region has a favourable environment for a successful implementation of circular economy principles (eg. proximity to industrial sector, etc.).
- Most stakeholders emphasized the importance of an inclusive approach to waste management whereby all stakeholders are engaged: women, local communities, waste pickers and informal sector, municipalities, schools, and private sector; successful examples of sorting at the source projects were described whereby such an approach was instrumental to the project's success; the 3P partnership model was also proposed to be adopted (People, Private and Public); successful initiatives promoting home composting and partnering with poultry and pig farms to use organic wastes were explained; the importance of adopting a bottom-up approach in project implementation was raised by various stakeholders.
- The importance of not charging the people with any fees was raised. Instead, the adoption of incentives should keep them engaged. All parties should be involved and should receive incentives to encourage them to sort their waste at source.
- Door-to-door campaigns, awareness campaigns at schools, and similar activities should be encouraged to train the communities on sorting from source. A monitoring system needs to be established to keep track of the sorted waste.
- Several stakeholders mentioned the need to build on success stories and to learn from past failures; for example, commingled wastes should not be used as a source of compost for farmers (only

green wastes and/or wastes sorted at source) and RDF cannot be promoted if the regulatory environment is not in place (eg. remove PVC from RDF stream, develop specifications, etc.).

- It has been suggested to form local committees to monitor the implementation of the projects and provide a foundation to increase trust between people and the government and strengthen the projects governance; this approach can support overcome the NIMBY syndrome which is still very acute in Lebanon; innovative project governance solutions are needed.
- Lebanon continues to rely on landfilling to manage wastes which is not sustainable; the example of a recent landfill project was provided whereby the landfill reached capacity in less than 2 years instead of its design capacity of 5 years; this further emphasizes the importance to promote 3R concepts and waste circularity principles in waste management.
- Key pillars for the success of the project were proposed: policy and regulatory framework, institutional/governance, sound technology and financial sustainability; the regulatory framework must be well-developed to ensure successful implementation of the project; this includes for example a framework for Extended Producer Responsibility, clear permitting procedures, and responsibilities in line with Law 80/2018, and specific waste stream regulations such as for packaging.

Stakeholder identification and analysis:

In order to meet best practice approaches, the project will apply the following principles for stakeholder engagement: - **Openness and life-cycle approach:** public consultations for the project(s) will be arranged during the whole life cycle, carried out in an open manner, free of external manipulation, interference, coercion, or intimidation.

Informed participation and feedback: information will be provided to and widely distributed among all stakeholders in an appropriate format; opportunities are provided for communicating stakeholders' feedback, for analyzing and addressing comments and concerns.

Inclusiveness and sensitivity: stakeholder identification is undertaken to support better communications and build effective relationships. The participation process for the projects is inclusive. All stakeholders are encouraged to be involved in the consultation process, to the extent the current circumstances permit. Equal access to information is provided to all stakeholders. Sensitivity to stakeholders' needs is the key principle underlying the selection of engagement methods. Special attention is given to vulnerable groups, in particular women and people with disabilities.

For the purposes of effective and tailored engagement, stakeholders of the proposed project can be divided into the following core categories:

- **Affected Parties ? persons,** groups and other entities within the Project Area of Influence that are directly influenced (actually or potentially) by the project and/or have been identified as most susceptible to change associated with the project, and who need to be closely engaged in identifying impacts and their significance, as well as in decision-making on mitigation and management measures;

- **Other Interested Parties ? individuals/groups/entities** that may not experience direct impacts from the Project but who consider or perceive their interests as being affected by the project and/or who could affect the project and the process of its implementation in some way; and
- **Vulnerable Groups ?** persons who may be disproportionately impacted or further disadvantaged by the project(s) as compared with any other groups due to their vulnerable status and that may require special engagement efforts to ensure their equal representation in the consultation and decision-making process associated with the project.

1) Affected Parties

The main potentially affected parties for these projects would be the local communities present with the direct and indirect areas of influence of each project. The final project's sites are not yet selected and therefore the exact affected parties are not known. This section will be updated once the final sites are identified and project activities selected.

2) Interested Parties

Considering previous studies relevant to the management of solid wastes, stakeholders that are of primary relevance given their interest and potential influence on the project are identified in this section.

Public Institutions

At the National Level:

Ministry of Environment (MoE): MoE is the national competent authority responsible for the protection of the environment in Lebanon. MoE is responsible for the preparation of national waste strategies and plans, and the legislation, guidelines, and standards for waste management. MoE reviews, approves, or refuses Environmental Impact Assessment reports for existing or for potential projects, and is responsible for monitoring and enforcing the implementation of the environmental standards and guidelines. MoE is the focal point of key environmental conventions for Lebanon, including the Stockholm convention on persistent organic pollutants (POPs). MoE will act as the implementing agency for this project.

Ministry of Interior and Municipalities (MoIM): MoIM oversees local authorities' affairs and operations including the Union of Municipalities and Municipalities. MoIM is directly engaged in municipal waste management (MWM) and is responsible to stop all kinds of infractions and violations.

Ministry of Industry (MoI): MoI has the mission of elaborating, with all the actors, a policy to assure the industrial sector development. MoI promote opportunities allowing the industrial production development to meet the evolutions of the national needs and the international orientations, this includes industries related to the recycling and treatment of solid waste. MoI promotes small and medium enterprises and small and medium enterprises/industries (SMEs, SMIs), and collects, analyzes and publishes industrial statistics in order to provide the different industrial stakeholders by studies and

indicators. In addition, MoI can facilitate the cooperation with industries in relation to promoting recycling factories and combating industrial pollution.

Ministry of Finance (MoF): responsible for management of the financial resources and for the fiscal policies in Lebanon; any policy that can affect the revenues of the central government needs to be approved by the MoF. The customs, which is under MoF, might also have a role if materials are to be imported.

Ministry of Labour (MoL): responsible for the implementation of the Labour Law as well as occupational health and safety at the work place.

Ministry of Agriculture (MoA): MoA oversees and promotes the agricultural sector in Lebanon. Of particular relevance to this project is the linkage that the Ministry's extension services can provide with farmers who could benefit from some of the project's by-products, particularly if composting plants are implemented.

Office of the Minister of State for Administrative Reform (OMSAR): the OMSAR has been implementing solid waste management projects in Lebanon through local authorities primarily through financing from the European Union (EU). Coordination with OMSAR is important to ensure the project leverages of the waste management facilities supported by OMSAR through the EU.

Ministry of Public Health (MoPH): the MoPH is responsible to safeguard and protect public health in Lebanon. This project is of direct relevance to its mandate since UPOPs are a major threat to public health.

Council for Development and Reconstruction (CDR): The CDR is a public institution that was created in 1977 - in partial replacement of the Ministry of Planning - to be the Government unit responsible for reconstruction and development. The CDR has unprecedented powers to avoid any administrative routine that could slow down the reconstruction process, especially in the financial field. It is financially and administratively independent, and directly affiliated to the Council of Ministers (CoM). Decree 5/1977 specified CDR's responsibilities which are formulated around 4 main axes (i) Planning, (ii) Consultancy and Guidance, (iii) Financial, (iv) Implementation and Monitoring. The CDR implements the main solid waste management projects in the country.

Environment Committee at the Lebanese Parliament: The Environment Committee oversees the work of the Government related to environmental management and conservation. In addition, the Committee prepares and or reviews the relevant draft laws. The Solid waste management is a core topic that the Committee follows. In addition, Members of Parliament can play a key role in supporting the implementation of the project in the different geographical areas.

Within the possible Project Geographic Areas of Intervention:

- Governorates and Quaemmaqam at the Caza Level:

* Governorates and Quaemmaqam at the Caza Level are responsible for governance at the governorate and caza levels respectively; any decision or project related to solid waste management should be coordinated with these authorities in order to ensure smooth coordination and implementation.

* Relevant governorates to the pre-selected areas: Governorates of South Lebanon, Nabatiyeh and Akkar.

* Relevant Quaemmaqams: Sour, Saida, Tyre, Qana

- Union of Municipalities and Municipalities

*Municipalities and Union of Municipalities are responsible for local governance: They represent the level of local government with legal status, financial and administrative independence, which exercises powers and responsibilities over the territory they are granted by law. Any decision or project related to solid waste management (SWM) should be coordinated with local authorities.

* Union of Municipalities in the pre-selected intervention areas: Tyre, Iqlim el Touffah, Jurd el Kaiteh, El Zahrani

* Municipalities: Qana, of Deir Qanoun El Naher, Abbasiyeh, Houmine El Faouka, Siddiqine, Fnaideq, Jdaidet El Qaiteh, Mishmesh, Sarafand, Marwaniyeh, Saksakiyeh

Private Sector

The private sector is a positively affected party by this project through business opportunities and their active engagement can support the successful implementation of this project.

Association of Lebanese Industrialists (ALI): ALI is the main national association of manufacturing companies operating in Lebanon. Deals with both economic and social issues concerning business and advocates a policy of balanced industrial development for all Lebanese regions. ALI can play a supporting role to the project to connect and coordinate with the recycling industries and for the implementation of 3R practices and pollution abatement.

Recycling Industries: Recycling industries are at the core of the success of 3R practices as they are a main user of recovered materials from waste streams.

Solid Waste Management Companies: Waste management companies are key to the success of this project as they will play an important role in design and implementation of the demonstration activities.

3) Other interested parties:

- International organizations: Many international organizations are actively supporting the solid waste management sector in Lebanon. Collaboration with these organizations will support successful implementation of this project. These include the EU, UNDP and USAID amongst others.

- Civil society and nongovernmental organizations: Civil society and nongovernmental organizations may have in-depth knowledge about the environmental and social issues that may affect project design and implementation. They may also be knowledgeable of the project area and the nearby populations, and can help play a role in identifying risks, potential impacts, and opportunities to consider and address in the assessment process. The following organizations were identified as "other interested parties". Some of the environmental NGOs working at the national level on issues related to solid waste management include, but are not limited to, the following: ISWA International, Arc-en-ciel, Waste Coalition, Green Globe, Terre Liban, Baldati, Green Line, Amwaj Environment, Greenpeace, Green Mind Beirut, World Vision Lebanon, Verdetech and Ecoserv.

- Organizations or entities to raise the viewpoints of disadvantaged/vulnerable individuals or groups: The following organizations were identified as potential entities to raise the viewpoints of disadvantaged/vulnerable individuals or groups and also to ensure access to these vulnerable groups so they these can be engaged as part of this SEP:

* Abaad is an NGO that aims to achieve gender equality as an essential condition to sustainable social and economic development. Abaad advocates for the development and implementation of policies and laws that enhance women's effective participation, through a rights-based approach that would bring about tangible change to gender justice.

* The Lebanese Democratic Women's Gathering (RDFL): The Lebanese Democratic Women's Gathering is a secular non-governmental women organization which works with the democratic forces and represents a part of the advocacy secular democratic women's movement, on the basis of international pacts and treaties, as well as the Universal Declaration of Human Rights and the Universal Declaration on the Elimination of Violence Against Women, in order to promote women's status and participation and empower them, aiming at achieving full equality between both sexes.

* Lebanon Family Planning Association for Development and family empowerment (LEPADE): National Lebanese NGO that works on all regions of Lebanon. Its mission is " To Contribute to the humanitarian, health, social and cultural development in order to achieve a balanced National development that ensures the stability and survival of the family, and empowerment of women and Youth". The LEPADDE implements projects to empower women especially enhance their socio-economic status.

* Madinati Tafroz is an NGO promoting sorting at the source practices in Lebanese municipalities and working closely with women.

- Academia: Lebanon is recognized for having strong academic institutions, many of which conduct research in the field of solid waste management. These include the American University of Beirut, the University of Balamand, the Lebanese American University and the Lebanese University.

- Media: It is important for the project to collaborate with national and local media streams to disseminate relevant information to the public. Accordingly, the project will identify relevant media channels and platforms they work with. These will include conventional media such as TV, Radio and Newspapers, as well as social media.

A summary of key stakeholder needs is provided in the table below.

Community	Stakeholder group	Language needs	Preferred notification means (e-mail, phone, radio, letter)	Specific needs (accessibility, large print, childcare, daytime meetings)
All Geographic Areas	National Public Institutions	Arabic	Written invitation by email and in hard copies	Easy access location; Adequate timing; Technical material with data; consultative discussion
	Private Sector Entities	Arabic/English	Written invitation by email and in hard copies	
Targeted Geographic Areas	Municipalities and Local Organizations and Entities	Arabic	Written invitation by email and in hard copies	Easy access location; Adequate timing; Easy to comprehend material with graphics; interactive discussion model
	Vulnerable Groups	Arabic	Direct invitation (written and verbal)	

Disadvantaged / vulnerable individuals or groups

It is particularly important to understand project impacts and whether they may disproportionately fall on disadvantaged or vulnerable individuals or groups, who often do not have a voice to express their concerns or understand the impacts of a project. Once the project geographical areas of intervention are selected, the specific vulnerable groups will be identified and included in the stakeholder engagement plan activities.

Vulnerable groups in this project include primarily women and informal workers in the solid waste sector. Other groups may include elderly, persons with disabilities, refugees, the poor, and people who do not know how to read and write.

- **Women:** Women play a key role in supporting the implementation of 3Rs at the community and household levels. They may also take part and benefit from the reuse and recycling activities whether at the individual/family level, or within women groups and associations. The project will particularly encourage broader participation and benefits for women. The consultations will engage women in discussions on the types of jobs in solid waste management or related supporting sectors they could most benefit from. Specific arrangements will also be made for women to be able to take on work directly and indirectly linked to the project activities.

- **Informal workers in the solid waste sector:** Under Component 2, the project will promote 3R practices and implement best practices in open dumps. Individual and groups of solid waste collectors

may be working in the intervention geographical areas and may be affected by the project activities. These informal workers will be identified to address their concerns and find means for mutual benefits. These groups will most likely need to be contacted through direct means and meetings as they do not have access to internet and could be illiterate. This is where NGOs will play an important role to support engagement with these groups.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

Stakeholder Engagement Program

1) Purpose and timing of stakeholder engagement program

The main goal of the Stakeholders consultations and engagements is to ensure stakeholders, and particularly local communities in the targeted geographical areas are aware of the planned project activities and understand the possible environmental and social implications of such activities. The SEP aims also to improve the design of the project by adding some concrete propositions that are relevant to the project and that help ameliorate its outcome. The propositions will be taken into account and further consultations will help improve the successful implementation of the project. MoE is planning to hold a series of consultation meetings throughout the Project and with a possibility of adding relevant stakeholders according to the needs of the project.

Additional identified stakeholders will accordingly be reflected in an updated SEP. This draft SEP will be disclosed prior to Project appraisal and following consultation with the identified stakeholders.

As the SEP is a living document, it will be updated periodically and as necessary as agreed with the Bank following the provisions of the Environmental and Social Commitment Plan (ESCP). The programme proposed includes the proposed timing of the various engagement activities. Precise dates cannot be confirmed until a schedule for the project activities is fixed. Stakeholders will be made aware of these events through various means of information disclosure as identified, including through the support of local NGOs who can help reach-out to local communities and vulnerable groups.

2) Proposed strategy for information disclosure

This section describes what information will be disclosed, in what formats and the types of methods that will be used to communicate this information to each of the stakeholder groups and are summarized as per the table below.

Proposed strategy for consultation and information disclosure					
Project Stage	List of Information to be Disclosed	Methods Proposed	Timetable/ Locations/ Dates	Target Stakeholders	Responsibilities
During Project preparation and before start of activities, and throughout the project lifetime	<p>Project Description, ESMF and ESCP, SEP and Grievance Mechanism (GM) and Gender Based Violence (GBV) and SEA/SH referral pathways. RPF if applicable.</p> <p>ESIA/ESMP when relevant</p> <p>All documents to be disclosed with executive summary in Arabic</p>	<p>Posting of documents on the websites of MoE</p> <p>Notification via local traditional and digital media, and relevant social media with posting of documents for review including link to download.</p> <p>Hard copies of the documents will be made available at the identified municipalities and distributed during consultation meetings as applicable.</p> <p>Series of targeted focus group discussions with affected parties.</p>	<p>Consultation on ESMF, SEP and ESCP was conducted on February 10th, 2022.</p> <p>Other documents to be made available for consultation when prepared.</p>	<p>Affected and interested parties</p> <p>Vulnerable groups</p> <p>Women-only groups</p>	MoE

During Project preparation	Post-Disclosure report documenting all stakeholder's concerns and feedback received during the public disclosure period, and how the project responds to them, including NGOs and community groups	<p>Disclosure on MoE websites and print-outs at identified municipalities (Arabic version).</p> <p>Direct reporting back to community and vulnerable groups.</p> <p>Hard copies of the documents will be made available at the identified municipalities.</p>	February 2022 to be available throughout the project time and updated every 6 months.	<p>Affected and interested parties</p> <p>Vulnerable groups</p>	MoE
Prior to start of Component 2 activities	<p>Information on planned construction/rehabilitation of waste facilities/dumpsites and 3R practices and selection process</p> <p>ESIA/ESMP</p>	<p>Preparation of info-graphics and leaflets that are easily understandable, culturally appropriate and accessible to the local authorities and communities and vulnerable groups.</p> <p>Consultation sessions at the target areas on ESIA/ESMP reports. Dissemination via social media and community meetings.</p>	Once ESIA/ESMP reports are ready for consultation	All stakeholders and especially potentially affected parties, including vulnerable groups.	MoE

During construction/ rehabilitation of waste facilities/dumpsites and 3R practices	Provide information associated with the start and implementation of the planned works. GM/SEA/SH referral pathways. Keeping stakeholders informed on any project activity that might affect them, including temporary road closures, changes to the planned schedule, and labor influx.	Official letters of notification, leaflets, advertisements available in both English and Arabic. MoE/contractor websites, public meetings, mass media, local noticeboards, and noticeboards at the premises of municipalities.	At least 4 weeks prior to start of activities and until completion	All stakeholders and particularly potentially affected parties and vulnerable groups	MoE Contractors
At the end of construction/ rehabilitation of waste facilities/dumpsites	Disclose information on the project's environmental and social performance during construction/rehabilitation activities	Environmental and Social Performance Report ^[1] available in both English and Arabic. Disclosure on MoE, and contractors websites Hard copies of the documents will be made available at the identified municipalities, and distributed during consultation meetings.	At the end of construction/rehabilitation period	All stakeholders and particularly potentially affected parties	MoE Contractors

During operation of 3R practices and waste facilities	Disclose information on the project's environmental and social performance, including safety, and mitigation/remedial actions taken	<p>Environmental and Social Performance Report available in both English and Arabic. Disclosure at MoE, and contractors' websites</p> <p>Hard copies of the documents will be made available at the identified municipalities, and distributed during consultation meetings.</p>	Every 6 months	All stakeholders and particularly potentially affected parties and vulnerable groups	MoE Contractors
During operation	Stakeholders perception surveys	Questionnaires to be administered to local communities to understand their level of awareness of project risks, mitigation measures and their level of compliance, and on the GM functioning.	Every 12 months	Affected parties including vulnerable groups	MoE

Throughout the project lifetime	Semi-annual reports regarding environmental and social impacts, grievances and project achievement	MoE Website Hard copies of the documents will be made available at the identified municipalities and distributed during consultation meetings.	Every 6 months	All stakeholders	MoE
At project completion	Project outcomes, results, and impacts Environmental and Social Performance Report	Project results and evaluation report, stakeholders' perception report	End of project	All stakeholders	MoE

3) Proposed strategy for consultation:

MoE will use the following methods for future consultations with each of the stakeholder groups.

Methods used may vary according to target audience, for example:

- Interviews and meetings with stakeholders and relevant organizations
- Surveys, polls, and questionnaires
- Public meetings, workshops, and/or focus groups on specific topics using participatory methods, using COVID19 preventive measures as per the WB technical note on conducting consultations during times of constraint like COVID19
- Other traditional mechanisms for consultation and decision making
- Notifications at municipalities
- Use of traditional mass media and social media

It is recommended to engage with Municipalities and local NGOs to support the engagement activities. A consultation workshop with Municipalities and NGOs is proposed to be conducted at the early start

of the project to present the project activities and SEP and identify how they can support SEP activities and the necessary resources needed.

4) Proposed strategy to incorporate the view of vulnerable groups

Considering the specific scope of this Project, vulnerable/disadvantaged groups at this stage can be identified to be mainly women and informal workers in solid waste. In order to ensure those groups are adequately involved in the project, specific engagement methods will be applied. Since the mentioned groups are cross-cutting throughout all different stakeholder groups the envisioned methods are being applied throughout consultations with any of the listed stakeholders. Those methods include:

- Women-only consultation sessions (for women as part of the communities or NGOs)
- Dedicated consultations with identified waste pickers in each implementation areas; these waste pickers will be identified through close coordination with the local authorities

5) Timelines

The timeline for implementation of the project is 6 years. During the implementation, consultative meetings will be held with all stakeholders and vulnerable groups covering all activities associated with the project lifecycle. Deadlines for comments will be two weeks after the proposed consultation meetings.

6) Review of Comments

Communication and feedback from stakeholders will be taken into consideration at each stage of this project. The stakeholders will be kept informed as the project develops, including reporting on project environmental and social performance and implementation of the stakeholder engagement plan and grievance mechanism. The MoE and PMU plan to have several meetings with stakeholders, during and post implementation to receive reviews and comments.

7) Future Phases of Project

All stakeholders will be kept informed as the project develops, including reporting on project environmental and social performance and implementation of the stakeholder engagement plan and grievance mechanism. MoE will prepare semi-annual reports regarding environmental and social impacts, grievances and project achievement and will present these to stakeholders.

Resources and Responsibilities for implementing stakeholder engagement activities

1) Resources

MoE, in particular the PMU Team Leader and the Environmental & Social specialist (that will be hired for the purpose of the project), will be in charge of the stakeholders' engagement activities as outlined in this SEP. The E&S specialist to be hired will establish the process in due time.

The Grievance Mechanism will be managed by the Project PMU E&S Specialist who will also ensure it is adequately functioning. An estimated budget to implement the SEP is provided below:

- External consultants: USD 5,000
- Preparation and design for dissemination and information materials: USD 2000
- Printing of dissemination and information materials: USD 2000
- Transportation, venues and F&B expenses: USD 2000
- Total during preparatory phase: USD 11,000

During operations, and in addition to the salaries of E&S specialist at the PMU, an annual budget for SEP implementation is estimated as follows:

- Budget for NGOs support: USD 5,000
- Graphic design / printing of new materials: USD 1,000
- Transportation, venues and F&B expenses: USD 1000
- Total annual Budget: USD 7,000

2) Management functions and responsibilities

The SEP will be managed and implemented by MoE and the PMU Team Leader and E&S Specialist. The main tasks and responsibilities include:

- Approval of all documentation containing project information that will be used for stakeholder engagements, before they are implemented and disclosed;
- Approval of the content of this SEP and any subsequent revisions;
- Operation of the grievance mechanism; and
- Preparation of Environmental and Social Performance Reports and their meaningful and widespread disclosure.

They will also be responsible to delegate the below activities to relevant teams:

- Preparing and printing all disclosure and media tools used for the Project;
- Providing information to stakeholders using the disclosure materials;
- The practical and logistical organisation of all stakeholder engagement activities including contacting stakeholders to arrange meeting times/locations;
- The preparation and issuing of all stakeholder engagement invitation letters;
- Attendance/facilitation of all stakeholder engagement meetings/discussions, including room meeting bookings, refreshments, and the recording of all results and issues raised;
- Generating an accurate record of all stakeholder engagement activities and noting any future actions required; and
- Ensuring that stakeholder engagement results are compiled into a summary with the aim of informing the project design.

Contractors under Component 2 shall be responsible for the following:

- Reporting any grievances immediately to MEW in accordance with the grievance mechanism and the GM Log;
- Other responsibilities that shall be defined as the project progresses.

Environmental and Social Performance Reports prepared during Component 2 activities of the project shall also include a summary of the engagements completed, during the reporting period and how they have been used to improve performance in the future. The following metrics will be used for monitoring and improving stakeholder engagement performance:

- At least a bi-annual revision of the SEP to reflect new information.
- Percent completion of tasks in the SEP during the reporting period.
- Number of public consultation events and participants that attended them segregated by gender during the reporting period and cumulatively.
- Number of stakeholders' comments and suggestions received by MoE/PMU segregated by gender during the reporting period and cumulatively.
- Number of women-only consultations conducted during the reporting period and cumulatively.
- Number of consultations conducted with vulnerable groups other than women during the reporting period and cumulatively.
- Number of stakeholders' grievances and claims regarding the Project segregated by gender during the reporting period and cumulatively.
- Number of advertisements in mass media during the reporting period and cumulatively.
- Category of complaint (i.e. restricted land use, employment, etc.) raised during the reporting period and cumulatively in percentage of prevalence.
- Percent of grievances resolved within the planned resolution timeline during the reporting period and cumulatively.
- Percent of grievances remaining unresolved within the planned resolution timeframe during the reporting period and cumulatively.

The above metrics will be reported in Environmental and Social Performance Reports prepared during construction/rehabilitation and operation.

Grievance Mechanism

An effective and responsive Grievance Mechanism facilitates project progress by reducing the risk that unaddressed complaints eventually lead to implementation delays, lengthy court procedures, or adverse public attention. The primary purpose of the GM however will be to provide clear and accountable means for project beneficiaries and affected persons to raise complaints, including concerns of possible tensions and feelings of exclusion, as well as to seek remedies when they believe they have been harmed by the project while complying with principles of confidentiality, data privacy and transparency. The final design of the GM will be validated and adjusted as needed during project implementation in consultation with relevant stakeholders to ensure its relevance and ease of use. Based on best practices, the final institutionalized GM should encompass a system that involves the following key steps:

- ? Uptake: Multiple uptake channels for complaints should exist to ensure widespread accessibility.
- ? Sorting and Processing: There should be a system to categorize, assign priority, and route grievances to the appropriate entity for handling and resolution.

- ? Acknowledgement and Follow-Up: Complaints should be acknowledged (in writing). The acknowledgement should outline the GM process, provide contact details and indicate how long it is likely to take to resolve the grievance. Clear timetables should be publicly available.
- ? Verification, Investigation, and Action: The merit of each grievance should be judged against clearly defined standards. Investigators should be neutral and not have a stake in the outcome. Action should be taken on every grievance.
- ? Monitoring and Evaluation: There should be a process to track grievances and assess progress being made to resolve grievances. There should be indicators to measure grievance monitoring and resolution, best displayed via a simple graphical dashboard. If there is data being collected, this data should be used to make policy and/or process changes to minimize similar grievances in the future.
- ? Feedback: Complainants should be surveyed for their satisfaction and feedback on the credibility of the process. Feedback should be publicly made available. The GRM should ideally recognize and enforce a right to appeal decisions. Target communities and other interested parties should be informed of this right, if recognized.
- ? Analysis: A process should be in place to analyze the effectiveness of the GRM periodically, within set timeframes.

The proposed GM for this project will be disclosed as part of the ESMF and SEP and publicly available. The GM will be accessible to all relevant stakeholders who can use this mechanism to send their suggestions, concerns and complaints related to the project.

1) Objectives of a complaints management mechanism

The grievance redress mechanism aims to provide individuals and communities who feel aggrieved by Project activities with accessible, timely, effective, and culturally appropriate opportunities to raise their complaints and concerns about the Project. It also aims to identify, propose, and implement fair and appropriate solutions in response to the complaints and concerns raised. Specifically, the objectives are to:

- Establish a system for receiving, recording and processing complaints and concerns in a timely manner with particular attention to vulnerable groups;
- Provide an effective, transparent, timely, fair and non-discriminatory system that would allow aggrieved persons to complain and avoid litigation;
- Encourage the social and amicable settlement of complaints and avoid recourse to the courts as far as possible;
- Minimize bad publicity and avoiding/minimizing delays in Project implementation;
- Ensure the sustainability of Project interventions and ownership by stakeholders; and

- Provide clarification in response to requests for information.

2) Raising awareness of the grievance mechanism

The existence of the grievance mechanism will be consistently publicized during all stakeholder engagement activities as described during meetings and outlined in table 4-1, focus group discussions and other types of formats as well as through the grievance mechanism leaflet which shall be used to provide a one-page summary of the function of the mechanism, details of the resolution and appeal process, and provide written contact details to raise a complaint.

3) Types of complaints and conflicts to be dealt with

All types of complaints will be registered, assessed and response provided and case closed within specified timelines. Some types of conflicts/complaints that may arise are but not limited to the following:

- Nuisance factors (dust, odor, noise, vibrations);
- Environmental impacts (air pollution, water pollution, litter, etc.);
- Claims related to socio-economic activities (waste picking, , etc.);
- Claims related to restricted use of land (in or in the vicinity of dumpsites, landfills, waste facilities);
- Health and safety related incidents (injuries during 3R practices and during closure/construction/ rehabilitation activities of dumpsites and landfills);
- Claims related to Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH);
- Claims related to injuries or fatalities from major accidents.
- Major incidents need to be reported to the World Bank within 48 hours.

All grievances should be given attention and importance, however certain grievances, in addition to injury-related grievances, should be provided urgent attention, particularly SEA/SH-related grievances, and grievances related to impact on livelihood.

4) Uptake Channels to Register Grievances

A grievance can be raised in the following ways:

- Formal mail, phone call, SMS, website or email to MoE

- Contact via designated Municipalities and NGOs that will collect grievances from vulnerable groups and for SEA/SH related grievances and refer them to the project
- Direct contact with Project Personnel or Contractors physically present in the project's area. Contact information will be presented in a grievance mechanism leaflet to be disseminated to local communities and stakeholders.

The SEP will be updated to include all contact details as soon as they are available as per the requirements of the ESCP.

5) The grievance mechanism process

The grievance mechanism process consists of the following steps:

- Registration of complaints and acknowledgement of receipt;
 - Channeled to appropriate staff/personnel/management
 - Assessment;
 - Responding with a proposed resolution;
 - Referral to GBV service providers if and as needed
 - The opportunity to appeal; and
 - Follow-up and conclusion.
- a- Registration of complaints and acknowledgement of receipt

Once information that a grievance has been received is channeled into MoE from whatever source, the Grievance Log will be updated by the E&S Specialist and the person/entity raising the grievance will be contacted by MoE/PMU Leader to request additional information within 3 working days from receipt of the grievance if needed. The Grievance Register shall immediately be populated by the PMU E&S Specialist with the following information using the Grievance Log:

- A unique reference number of the complaint;
- The date and time on which the complaint was lodged;
- How the grievance was first brought to the attention of MoE (uptake channel);
- Information about the complainant (name, gender, telephone number and preferred contact details, their place of residence and address); complainant has the right also to raise the grievance anonymously;
- The use of the referral pathway, if any;
- A brief description of the complaint to include details of the location, people involved so that a timeline of events can be created;
- The category of the complaint;
- Whether it is a major incident and requires reporting to World Bank within 48-hours;
- Time and date in which the complaint was closed/resolved;
- Whether the complainant chose to appeal.

The person raising the grievance shall then be provided with an acknowledgement within three working days from the point the grievance was first raised, in an appropriate manner that reflects their preferred contact details (typically a letter or email), by PMU E&S Specialist. The acknowledgement of receipt shall contain information about the next steps in the procedure, target timeframe and the contact details of the person who has been assigned to investigate and manage the grievance.

b- Assessment

The grievance shall be assessed, and an Assessment Report prepared and issued by the MoE/PMU within 15 working days from registration of the grievance. The PMU E&S Specialist is responsible to delegate the investigation to relevant personnel based on the type of grievance received. The PMU E&S Specialist will review the investigation report and approve it prior to sharing with the person/entity raising the grievance. If the grievance relates to a minor issue, then it is likely that the investigation can be completed in advance of the 15 working days. The investigation shall involve an examination of the circumstances of the case, interviews with the parties involved and consultations with stakeholders. The report shall include details of the proposed steps to be taken to resolve the grievance based upon the facts. If such steps require disbursement of financial resources, the case shall be raised to the PMU Leader for review and appropriate action.

c- Responding with a proposed resolution

The PMU E&S Specialist will inform the person raising the grievance, within 20 working days from the date when the grievance was registered, of the outcome of the Investigation Report and the proposed steps to be taken to resolve the grievance. This shall be conducted through a physical meeting with all persons who are able to be present and while taking all necessary precautions related to COVID-19 in line with World Bank's relevant guidance note. If a physical meeting is not possible, the meeting can be held remotely via means that are accessible to the person raising the grievance. If the person accepts the resolution steps, then these will be implemented within the agreed timeframe and the person raising the grievance will be requested to sign their acceptance of the proposed solution so that it can be closed in the Grievance Register (Annex 2). As a target, all complaints should be closed within 30 working days from registration of the grievance. Feedback will be requested from the person to check how satisfied they are with the overall resolution of the grievance. If the person does not accept the resolution steps, then they will be able to appeal (see below).

d- The opportunity to appeal

If the originator of the grievance is not satisfied with the resolution, he/she has the right to appeal. If a person wishes to appeal then, PMU E&S Specialist shall invite the services of an independent party (such as a non-governmental organization, civil society group or independent consultant) and ask them to provide one, or more, representatives to help mediate the case. At any time during the grievance resolution process, a complainant can seek independent legal advice or involve a court of law. Vulnerable groups will be assisted to raise their grievances by the Beirut Bar Association, which can appoint voluntary lawyers to investigate such claims. NGOs engaged in the project can also play a role in defending legal rights of vulnerable groups. The E&S Specialist will ensure adequate follow-up of the appeal process to ensure the case is closed as promptly as practicably possible.

e- Follow-up and conclusion

Once a resolution of the complaint has been agreed or a decision to close the file has been made, the final step will be the implementation of the settlement, the monitoring of the results and the conclusion of the complaint. Where needed, the E&S Specialist will prepare a 'lessons learned' document that outlines the steps taken to avoid similar grievances from re-occurring in the future. These shall then be disseminated across the Project and activities through toolbox talks, notice signs, meetings and other

activities to work towards improving the Project's environmental and social performance over time. Reporting on Gender Based Violence (GBV)/SEA/SH and cases of abuse by staff will be highlighted and community members will be encouraged to report cases of violence they witness in or around the work sites and related public spaces. This would help to ensure that women and girls especially have a voice when they experience any kind of violence during project implementation. Where applicable, this can be done by raising awareness of safe and anonymous mechanisms that anyone can use to report GBV/SEA/SH, as well as awareness on the redress mechanisms offered through the program and other local institutions. The GRM does not exclude the formal legal process of the national law. If a grievance remains unresolved following application of the project GRM process, the affected person can initiate legal proceedings in accordance with national law and may have recourse to the Appeals Court as warranted.

Monitoring and Reporting

1) Involvement of stakeholders in monitoring activities

It is recommended that NGOs be involved in stakeholder monitoring activities. This can be discussed in the NGO's consultation session and a relevant NGO with required competency and resources can be selected for further discussions.

2) Reporting back to stakeholder groups

Stakeholders will be kept informed as the project develops, including reporting on project environmental and social performance and implementation of the stakeholder engagement plan and grievance mechanism. Where applicable, the SEP will include differentiated measures to allow the effective participation of disadvantaged or vulnerable groups (such as an increased level of resources may be needed for communication with such differently affected groups). The SEP will be updated regularly (and at least twice a year) to reflect the views of stakeholders.

[1] This report provides information on KPIs and overall environmental and social performance of the project

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor;

Other (Please explain) Yes

Beneficiary - individuals and groups of informal solid waste collectors and recyclers will be beneficiaries of the project.

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Prior to any action, gender-sensitive informational sessions will be organized to introduce the project at the local level/ each community. The purpose of these sessions is to ensure that men and women who did not participate in the project launching event have an equal understanding of the project's objectives and planned interventions. In addition, gender-sensitive consultations will be held as part of the selection process of the open dumpsites related to SWM facilities. Women may express different expectations, requirements, and options for waste management. When municipalities (where open dump sites exist) are selected, technical units to establish at each of the selected municipalities will include men and women representatives of municipal and community members. Linkages with the women network initiated by the NCLW will be encouraged. Support will be provided to local authorities, NGOs and private sector with technology transfer/production change, technical trainings, and networking to improve their overall material flows, profitability, viability and reduce their impacts on the environment and people. A gender-sensitive selection and engagement of stakeholders will be ensured. The gender action plan is attached as Annex H.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

This project will involve the collection and recycling industries of different waste streams and upstream production industries to improve resource/material efficiency and make sure reuse and recycling the intended destination at the end of life. Substantial and target managerial and technical training will be provided under the project Component 1. The project will also support a very pro-active and inclusive citizen engagement process and develop an inclusive communications and stakeholder engagement plan aiming to maintain close consultation with the different public and private stakeholders and civil society in preparation and implementation of the demonstrations and the ESMPs.

Inclusive ongoing stakeholder consultation and engagement on an ongoing basis, is essential for successful post-rehabilitation initiatives. Considering the importance of stakeholder involvement and commitment including local government along the value chain of the waste sector, Component 2 of the project proposes to involve the local authorities, NGOs, and private sector stakeholders in the selection of technology transfer/production change in the addressed solid waste service zones.

Citizens Engagement activities and engagement with government and private sector stakeholders will be carried out during both project preparation and implementation. Specifically, the Technical Committee to be established under the project will include experts on CE from think tanks, academic institutions, and civil society organizations (CSOs) as appropriate to adopt a truly multi-stakeholder approach to inform policymaking. The Project Management Unit (PMU) will help the Ministry of Environment (MoE) to coordinate proactive and inclusive consultations on draft policies and regulations to be developed and inputs provided by community members, waste pickers and CSOs will be considered before their finalization. Outreach programs and options such as a waste-focused behavior change program, RecycleBank, establishment and collaboration with community advisory groups will be considered and applied as appropriate. To promote green chemistry, EPR, GPP and 3R practices under the circular economy, the Technical Committee may provide scientists, engineers, and other professionals to review and explain information to communities. This assistance will support community efforts to get more involved and work productively with MoE to address waste management issues. The project will also explore setting up an online feedback channel through which citizens without any technical know-how can document/report on open dumping sites by sharing photos and geo-tagged locations.

5. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial	High or Substantial		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

The overall residual risk to achieving the PDO is rated Substantial.

Political and governance (High). Political and governance instabilities may affect the achievement of the PDO, which may cause disruptions to the workflow of the government. To mitigate these risks, the team is closely monitoring the political developments, macroeconomic environment, and the Lebanon portfolio and will propose corrective measures accordingly. The proposed implementation arrangement, with MoE as the recipient of the grant but with options to outsource or hire capacity for daily project implementation, will limit if needed the reliance on the government to implement the activities, which could potentially cause delays and bottlenecks. The World Bank will engage and coordinate closely with implementing partners to ensure that they are fully briefed on bottlenecks and pending issues. The WBG will also continue to implement strict screening and monitoring measures throughout implementation of the activity to ensure utmost transparency and accountability.

Macroeconomic (High). Lebanon is facing the most severe and economic crises in modern history. These crises were further exacerbated by the mitigation measures put in place to contain the spread of the COVID-19 pandemic, in addition to the serious damages and losses caused by the PoB explosion. Should this macroeconomic instability deteriorate further, this could affect the achievement of the PDO. In the current context of a rapidly depreciating Lebanese Pound (LBP) against international currencies and rising inflation, it is important to preserve the purchasing power of project funds, e.g. by maximizing the US dollar value of the funds provided through GEF. To mitigate the foreign exchange and inflation risks, the benefit amount in LBP will be reviewed regularly, or at more frequent intervals if required, by the Bank and the implementing agency. Other mitigation measures will be designed during the preparation and finalized during the project's appraisal. Further deterioration of the economy may affect the Government budget and subsequently funding for the counterpart contributions of the project. The project design will allow to make necessary improvements in the selected serviced zones in light of extensive mobilization of local authorities, private sector operators and the population at large in the operation, also in case of budget challenges at central level occur.

Moreover, maintaining solid waste management service to the public remains as a high priority for the government given its impact on the public health in specific and on the economy of the country in general. As such, the government is expected to be able to maintain these services despite the financial crisis.

Sector strategies and Policies (Substantial). The regulatory framework and technical capacity of institutions in Lebanon to manage solid waste is rather weak. Hence, the sector strategies risk has been rated as 'substantial'. However, the project is part of a broader effort to support Lebanon's waste management sector, and the team and MoE as project implementing agency will coordinate closely with other development agencies, NGOs, or civil society organizations to ensure that overall efforts to support the waste sector are coordinated. In addition, the project through Component 1 will support strengthening policy and regulatory framework for solid waste management and the introduction circular economy approaches.

Technical design (Moderate). The proposed project will not finance high risk activities. Commercially available 3R practices and BAT/BEP recommended by the Stockholm Convention and EU Industries Emissions Directive and BAT Reference Documents will be considered for the project and investments will have the nature of improvements (upgrading) of existing facilities will technically well-proven and widely applied solutions.

Institutional capacity for implementation and sustainability (Substantial). Ministry of Environment has sound experience in Lebanon with the implementation of projects financed by international donors. The institution has also good experience in managing World Bank Projects. To ensure sustainability, the project will establish a PSC involving key stakeholders ministries and government agencies. The institutional risk has been rated as Substantial due to the limited staff capacity with MoE as implementing agency and the need to largely outsource project implementation activities.

Fiduciary (Substantial). The Ministry of Environment has limited human resources and fiduciary capacities to undertake the project. A new PMU will be established for project preparation and implementation. The financial management risks are the following: (i) Possible delays of funds to be transferred from the MoF Treasury Account to the project designated account due to the CoA prior review and bureaucratic procedures at MoF, thus impacting timely payments; (ii) MoE has internal bylaws and procedures, however they do not comprehensively cover the Bank FM requirements; (iii) The MoE does not have an accounting software to record transactions and produce financial reports; (iv) The continuing devaluation of the Lebanese Pound (LBP) against the USD; (v) MoE falls under the

audit of the Court of Accounts (CoA), although the CoA has technical expertise, it lacks the human resources to conduct the audit and may not audit the project on a yearly basis.

Environmental and Social Risks (Substantial). Environmental and social risks are rated as substantial as indicated earlier. Environment and social instruments have been developed during project preparation to mitigate potential risks and impacts of the project, which will be cleared and disclosed by project appraisal. All other E&S provisions are outlined in the ESCP.

Stakeholders (Moderate). Applying circular economy in waste management require multiple stakeholders? collaboration in the entire value chains. This project will involve the collection and recycling industries of different waste streams and upstream production industries to improve resource/material efficiency and make sure reuse and recycling the intended destination at the end of life. Substantial and target managerial and technical training will be provided under the project Component 1. The project will also support a very pro-active and inclusive citizen engagement process and develop an inclusive communications and stakeholder engagement plan aiming to maintain close consultation with the different public and private stakeholders and civil society in preparation and implementation of the demonstrations and the ESMPs.

Other (Substantial). Instability and / or increase in national COVID-19 cases, could lead to lockdown measures in the country, thus delaying field activities especially under Component 2. The pandemic could also negatively impact the mobilization of international experts and companies, whose field presence is crucial for activities under Component 2. It is noted that COVID-19 cases have considerable dropped in numbers since the start of 2022 and further lifting of restrictions are expected. A recognized risk to Lebanon from the recent war in Ukraine is the impact of cereal imports. It is difficult to judge at this stage potential impacts on project implementation and mitigating measures.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
P172770 Concept ESRS	Project PIF ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Results Framework and Monitoring are included in the PAD, pages 43-49

ANNEX B: 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).

Review Category	Reviewer	Comment	Project Team Response
Council comments	Canada	Canada supports this project as it is in line with Stockholm Convention text, Stockholm BAT and BEP Guidance on burning of landfill sites, and proposed actions to the GEF in the 2018-2022 priority areas as it relates to UOPs.	Thank you
Council comments	Canada	Canada supports efforts to update Lebanon's NIP (compliance with Stockholm Convention Article 7).	Thank you
Council comments	France	<p>The objective of the project led by Makesense and Recycle Beirut is to improve social and environmental resilience in Lebanon. The project will consolidate the social enterprise Recycle Beirut, which offers a sustainable solution to the treatment of solid household waste. It will create awareness amongst the general public, in particular youth and students, about problems and solutions related to waste. Finally, it will strengthen the circular economy in Lebanon by supporting 12 projects.</p> <p>This proposed GEF project in Lebanon covers similar topics than to an AFD funded project dedicated to funding circular economy projects with Recycle Beirut.</p>	<p>The team has conferred with Recycle Beirut / AFD to ensure complementarity between the projects and will continue this dialogue throughout the project implementation.</p> <p>In addition, the project will be targeting different geographical service zones then the zones / areas addressed by Recycle Beirut.</p>
Council comments	France	Component 1 of the GEF project to strengthen the regulatory framework for circular economy is very positive and would be complementary, as the AFD project does not address the regulatory dimension.	Thank you, this complementarity is well noted.

Council comments	France	<p>Component 2 of the GEF project on the promotion of 3R practices is directly complementary. However, we ask for the activities under the 3R approach (Reduce, Reuse, Recycle) to be elaborated in detail before endorsement and fully encompass recycling and reuse, so that the 3R approach is complete beyond reduction at source and waste management.</p>	<p>The activities under the 3R approach have been elaborated in the PAD, and the approach aims for a circular economy approach that fully utilizes recycling and reuse as well as reduction of waste/waste management.</p>
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Council comments	France	<p>At this stage there is little information on the 3R concepts mentioned and what will be concretely implemented based on the national context.</p> <p>There is just a list of options which mentions plans to work on 4 types of waste: organic waste, paper, plastic, glass. But the strategies will be very different depending on the waste type. The list of options does not address all these issues and does not deal with plastic waste, for example.</p>	<p>Component 1 of the project will be supporting in setting clear standards for the suppliers and manufacturers using recycled materials, voluntary or mandatory standards can help markets operate more effectively. This will allow the country to ensure the adoption of circular economy in waste management and organizing knowledge and learning events and trainings for decision makers, stakeholders, and practitioners, and public awareness raising activities on consequences of waste open burning, and other alternative approaches, while updating national product standards for plastics, paper, inks, glass, etc.</p> <p>In addition, the project will promote the principles of reducing/avoiding waste especially in the plastic waste stream such as banning use of single-use plastics and encouraging packaging improvement/reuse, in collaboration with brands and lead firms in Lebanon in the value chain, in addition to sorting, collection, recycling and reuse at the downstream level (after waste is generated). For the plastic stream, the Plastic policy simulator developed under the Pathways out of Plastic Pollution project will be investigated in view of identifying a menu of options available.</p>
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Council comments	France	<p>Finally, the project should also analyze stakeholders power dynamics and interactions and provide an analysis of potential barriers and areas of intervention with respect to structuring of the waste management sector. This is crucial to ensure good appropriation of a project on waste management and circular economy, particularly in Lebanon.</p>	<p>To facilitate, co-ordination and active participation of various governmental agencies, relevant ministries, and other stakeholders for the overall implementation of the project, the project will establish a ?Project Steering Committee (PSC)?. The PSC shall be established in close consultation with Government of Lebanon ministries, departments, agencies, and other stakeholders relevant to the project and shall include among others Ministry of Environment, Ministry of Industry, Ministry of Public Health, Ministry of Interior and Municipalities, Ministry of Finance, Ministry of Economy and Trade, OMSAR, CDR and other stakeholders as needed. The main objective of the PSC will be to (i) provide guidance and oversight to overall project implementation, (ii) review the project progress and provide strategic guidance in the implementation; (iii) facilitate resolution of implementation challenges including any statutory and administrative approvals that may be required for the project activities; and (iv) ensure synergies between project activities, other initiatives of the government and other development partners. The PSC will also ensure appropriate participation of relevant officials of the ministry/ agency in the implementation of project activities, to facilitate the transfer of knowledge from the PMU and other technical experts involved in the project. Such participation will also help with capacity</p>
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Council comments	Norway/ Denmark	We note that the project will work along the entire lifecycle of waste, including upstream efforts like green chemistry, extended producer responsibility, green procurement, and product standards. We support this approach.	Thank you
Council comments	Norway/ Denmark	Better waste management methods to increase the recycling of waste and the fraction of organic waste composted will be established. We appreciate this approach for ordinary waste. The POPs, mercury and other chemical substances hazardous to man and the environment, however, require special attention when handling the waste. This is also the case during recycling of waste, to avoid that harmful substances end up in the new products. We would like a clarification, whether such issues will be dealt with in the project.	Under its Component 2, the project will be supporting and advocating for the integrated solid waste management and the enforcement of provisions of Law 80/2018 and its application decrees (sorting at source and management of hazardous waste).

STAP	STAP	<p>This project builds on earlier World Bank engagement on environmental performance improvements in Lebanon by reducing unintentional persistent organic pollution (UPOP) from waste burning and leakage from municipal waste management systems through improved waste recovery as well as the implementation of "Green Chemistry" approaches. Overall, the project aims to help Lebanon develop capacity towards having a more circular economy of production and consumption.</p> <p>While these goals are well-articulated at a conceptual level, the project's theory of change (Annex 1 of the project concept note) does not provide the specific step linkages to attain the objectives described. For example, "Green Chemistry" was mentioned and footnoted with its twelve-point framework as well as "Extended Producer Responsibility," but it is unclear how a particular industrial sector will be approached. There is no clear industry partnership noted (except for a brief mention of the agro-food sector). This is particularly important for this type of project.</p> <p>The proponents may have this information, but it is not provided. Before approval, there must be clarity given on the implementation regimen and theory of change, especially with the fragile situation in the country and ensuring donor funds are efficiently utilized.</p> <p>The theory of change should be improved to incorporate the assumptions and the causative pathways that will lead to the desired outcome. STAP's theory of change primer (https://stapgef.org/resources/advisory-documents/theory-change-primer) can be a helpful guide in this regard.</p>	The PAD did address the raised concerns and request for clarifications.
STAP	STAP	<p>While the project components include developing policy frameworks and regulatory instruments and introducing BATs/BEPs, which are part of core indicators for the GEF's chemicals and waste focal area, this was not mentioned in the core indicator section of the PIF (indicators 10.1 and 10.2). These indicators should be updated as appropriate.</p>	The proposed indicators in the PAD did address the highlighted concern.

STAP	STAP	An estimated 20 gTEQ is provided as the expected Global Environment Benefits (GEBs) from the project. With GEF investment totaling \$8,858,447 for all project components and management, that is about \$442,922.35 per gTEQ of uPOP emissions avoided. Using only the budget for Component 2, which involves demonstrations (\$5,000,000 of GEF investment), the cost per gTEQ of uPOP emissions avoided will be \$2,500,000. These are high costs of uPOP avoidance. This is because the range of possible POP reduction from the project is not fully accounted for. For example, implementing green chemistry, extended producer responsibility, and green public procurement, as intended under Component 1, will reduce waste generation and ensure that hazardous chemicals, including POPs, are avoided in products, leading to eliminating POPs. This potential POP avoidance from these measures, therefore, needs to be incorporated.	This had been addressed in the PAD.
STAP	STAP	Further on GEBs, it is commendable that the proponent noted the potential for the project to generate greenhouse gas emissions benefits. An estimate of possible emissions reduction should also be included in the project's core indicators (GEF Core Indicator 6).	This had been included in the project core indicators.

STAP	STAP	<p>A crucial missing element in the proposed project interventions is catalyzing behavior change. How organizations, including public and private sectors, and individuals respond to new waste management processes and solutions is essential to success as implementing the new approaches and technologies. It is therefore important to incorporate behavioral change elements into the proposed activities. We recommend that the proponent review STAP's recent advisory on behavior change, which highlights six strategic levers for changing behavior, to help provide further insight into designing this component. (https://stapgef.org/resources/advisory-documents/why-behavior-change-matters-gef-and-what-do-about-it).</p>	<p>Component 2 will be targeting schools to make sure that waste reduction, reuse and recycling behavior start at early childhood. To that end, unconventional awareness raising approaches will be solicited such as using interactive mobile theaters, street arts and waste-dedicated festivals, puppet shows in local auditoriums and schools, etc. The project will engage specialized local groups to this end. Attention will be dedicated to target mixed and single gender schools. The project will also collaborate with local universities to raise awareness on how to change consumption behavior of students, males and females, which could influence their traditional culture of waste disposal and consumption behaviors. Inter-university competitions will be annually launched to promote innovative waste management thinking and practices.</p> <p>In addition, the project will be supporting outreach programs and options such as a waste-focused behavior change program, RecycleBank, establishment and collaboration with community advisory groups will be considered and applied as appropriate.</p>
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STAP	STAP	<p>The possible impact of climate change on the project was recognized, and an analysis of the climate risk was presented using World Bank's climate risk and disaster risk screening tool. The screening result shows a high exposure rating of project location and physical infrastructure and assets to climate change. The climate risk mitigation measures are, however, not presented. We encourage this to be done before the project proceeds.</p>	<p>This had been addressed in the PAD.</p>
STAP	STAP	<p>We would also recommend that the proponents refer to the following readings that show existing research in this arena so that redundant consultancies are not recruited for Phase 1 of the project. Instead, the investment is direct at project implementation.</p> <p>? Chalhoub, Michel Soto. "Public Policy and Technology Choices for Municipal Solid Waste Management a Recent Case in Lebanon." Edited by Keng Yuen Foo. Cogent Environmental Science 4, no. 1 (January 1, 2018): 1529853. https://doi.org/10.1080/23311843.2018.1529853.</p> <p>? Maalouf, Amani, and Mutasem El-Fadel. "Life Cycle Assessment for Solid Waste Management in Lebanon: Economic Implications of Carbon Credit." Waste Management & Research 37, no. 1 suppl (January 1, 2019): 14?26. https://doi.org/10.1177/0734242X18815951.</p> <p>? Massoud, May A., Michel Mokbel, and Suheir Alawieh. "Reframing Environmental Problems: Lessons from the Solid Waste Crisis in Lebanon." Journal of Material Cycles and Waste Management 21, no. 6 (2019): 1311?20. https://doi.org/10.1007/s10163-019-00884-8.</p> <p>? Ali, S and Leonard, S.A. 2021. The Circular Economy and Climate Mitigation and the Circular. A STAP Advisory Document. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC.</p> <p>? Katima, J. and Leonard, S. 2020. Delivering Multiple Benefits through the Sound Management of Chemicals and Waste.</p> <p>A STAP Advisory Document. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC.</p>	<p>Thank you</p>

STAP	STAP	Project Objective (Is the objective clearly defined, and consistently related to the problem diagnosis?) Response: Not adequately ? the objectives need to be linked to more actionable items.	The project objectives had been revisited
STAP	STAP	Project components (brief description of the planned activities. Do these support the project's objectives?) Response: Partially	The PAD elaborated on the project objectives
STAP	STAP	Outcomes (A description of the expected short-term and medium-term effects of an intervention. Do the planned outcomes encompass important global environmental benefits? Are the global environmental benefits likely to be generated?) Response: The project terms "global benefits" and also provides an estimate for 20g TEQ/ a UPOP emission to air, about 50% over 2014 levels. However, how this target would be met is not clear at all nor have citations or scenarios been presented on the project's ability to achieve this.	This had been clarified in the PAD
STAP	STAP	Outputs (A description of the products and services which are expected to result from the project. Is the sum of the outputs likely to contribute to the outcomes?) Response: This is provided but as noted the incremental theory of change is missing and hence hard to determine how the targets would be met.	This had been clarified in the PAD
STAP	STAP	PIF Project Description question 1 Response: Yes ? this is adequately presented.	Thank you
STAP	STAP	PIF Project Description question 2 Response: Yes, there are citations to earlier studies and materials provided.	Thank you
STAP	STAP	PIF Project Description question 3 Response: The theory of change should be improved to incorporate the assumptions and the causative pathways that will lead to the desired outcome. STAP's theory of change primer (https://stapgef.org/resources/advisory-documents/theory-change-primer) can be a helpful guide in this regard.	This had been improved in the PAD

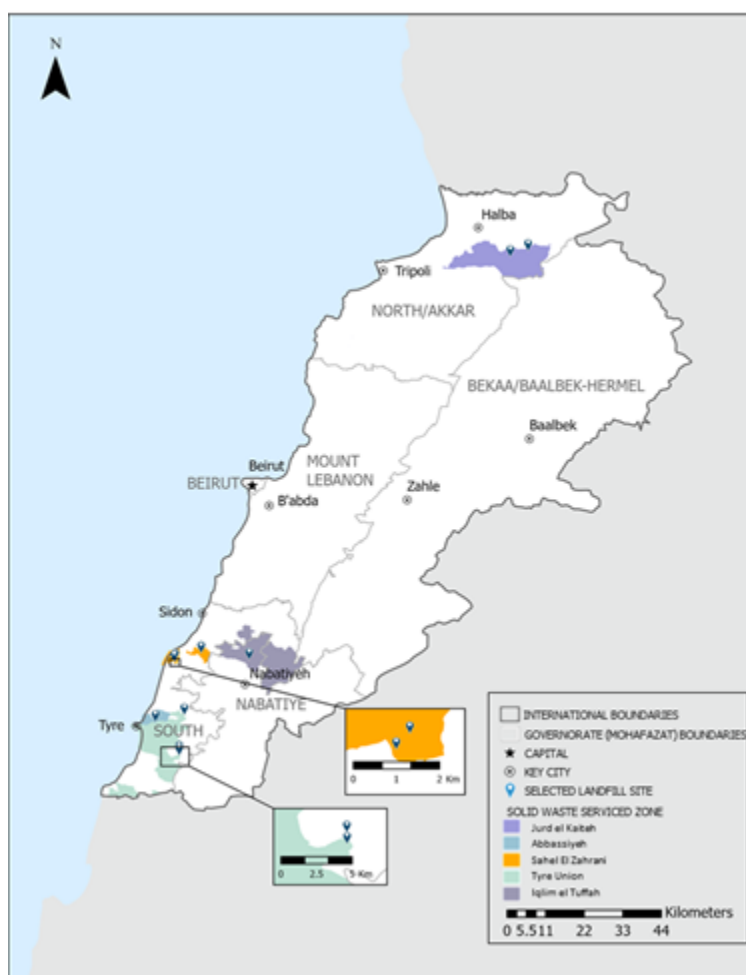
STAP	STAP	PIF Project Description question 5 Response: Partially presented	This had been improved in the PAD
STAP	STAP	PIF Project Description question 6 Response: Yes ? if there is overall reduction in UPOPs, the impacts can be global.	Thank you
STAP	STAP	PIF Project Description question 7 Response: Green Chemistry could be an innovation but there is inadequate elaboration of how this would be set forth and only a couple of sentences on innovation are provided	This had been improved in the PAD
STAP	STAP	PIF Stakeholders questions Response: There is a detailed addendum social review provided as per World bank templates.	Thank you
STAP	STAP	PIF Gender Equality and Women's Empowerment questions Response: Yes, there is a description of the gender disparities in country but how this could be addressed is not provided. For example, the project might bring in women-owned businesses into 3R etc. or partner with particular civil society groups involved in such issues.	Thank you
STAP	STAP	PIF Risks questions Response: Yes, there is a detailed pro forma assessment as per World Bank templates. Climate risk screening is also provided. Mitigation measures need to be developed.	This had been improved in the PAD
STAP	STAP	PIF Coordination questions Response: Private sector engagement should have been noted more clearly given that this involves waste reduction efforts which has a direct industry nexus	This had been improved in the PAD
STAP	STAP	PIF Knowledge Management questions Response: Material is noted on databases and government repositories of information which could be linked.	This had been improved in the PAD

ANNEX C: Status of Utilization of Project Preparation Grant (PPG).
(Provide detailed funding amount of the PPG activities financing status
in the table below:

It was not possible to use PPG funds as the Government requested to implement PPG through BETF and Bank procedures were too lengthy, so all preparations were done from outside PPG funds.

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.



Serviced Zone	Dump site name	X	Y
Union of Municipalities of Tyre	Qana	35.31369	33.20159
	Deir Qanoun En Nahr	35.32696	33.29805
	Sadiqine	35.31384	33.19442

Union of Municipalities of Sahel el Zahrani	Sarafand	35.30374	33.43701
	Merouaniye	35.37007	33.45643
	Seksakiye	35.30084	33.43361
Municipality of Abbasiyeh	Abbesye	35.25299	33.28076
Union of Municipalities of Iqlim el Touffah	Houmine El-Faouqa	35.49299	33.43939
Union of Municipalities of Jurd El Kaiteh	Fnaydek	36.20734	34.48442
	Mishmesh	36.16165	34.46921

ANNEX E: Project Budget Table

Please attach a project budget table.

Indicative Project Budget Template									
Expenditure Category	Detailed Description	Component (USDeq.)						Total (USD eq.)	Responsible Entity
		Component 1	Component 2	Component 3		Sub-Total	PM C		
		Outcome 1.1: Regulations and Incentive scheme for promotion and sustainability of circular economy	Outcome 2.1: Circular economy principles to deliver global environmental benefits promoted, demonstrated, integrated, and mainstreamed	Outcome 3.1: Project results monitored, adaptive management applied in response to needs identified and findings extracted	Outcome 3.2: Lessons-learned, experiences, and best practices extracted and disseminated at national level				
Works	Provision of support to 2-3 SWM service areas where open burning of dumpsites is taking place to establish and implement a ISWM plan based on the 3R practices	0	2,100,000	0	0	2,100,000	0	2,100,000	Ministry of Environment

	Provision of support through implementing the demonstration interventions of BATs/BEPs at selected open dumps	0	2,696,617	0	0	2,696,617	0	2,696,617	Ministry of Environment
Goods	Provision of laboratory equipment for national laboratories to test for UPOPs parameters and needed equipment for rehabilitation and operation of AQMN to test for UPOPs parameters	850,000	0	0	0	850,000	0	850,000	Ministry of Environment
Contractual Services ? Company	Companies engaged under temporary contract to review national standards for recycling products and design updates for such products and to provide support to the established Technical Committee	70,000	0	0	0	70,000	0	70,000	Ministry of Environment
	Company engaged under temporary contract to review and update 2017 NIP for POPs	300,000	0	0	0	300,000	0	300,000	Ministry of Environment

	Company engaged under temporary contract to update of 2016 Master Plan for the Closure and Rehabilitation of Uncontrolled Dumpsites	150,000	0	0	0	150,000	0	150,000	Ministry of Environment
	Company engaged under temporary contract to assess UPOPs in sediments at river outlets and Development of pipeline of sediment dredging operations	330,000	0	0	0	330,000	0	330,000	Ministry of Environment
	Company engaged under temporary contract to support in the establishment of a national unified database for POPs, chemicals, waste, and contaminated sites	100,000	0	0	0	100,000	0	100,000	Ministry of Environment
	Company engaged under temporary contract to develop the local SW master plans for 4 selected areas to identify modalities for adopting an ISWM approach at the service area	0	300,000	0	0	300,000	0	300,000	Ministry of Environment

	Company engaged under temporary contract to assess the economic feasibility and cost recovery of SWM systems	0	200,000	0	0	200,000	0	200,000	Ministry of Environment
	Company engaged under temporary contract to design and supervise the demonstration of BATs/BEPs at selected open dumps	0	300,000	0	0	300,000	0	300,000	Ministry of Environment
	Independent Financial Auditor engaged to conduct financial auditing for every project fiscal year	0	0			0	80,000	80,000	Ministry of Environment
	Company will be hired to support in project communication and visibility	0	0		95,000	95,000		95,000	Ministry of Environment
International Consultants	Technical/specialized consultants will be hired to provide need technical assistance for the interventions proposed at the level of the dumpsites under Component 2	0	300,000	0	0	300,000	0	300,000	Ministry of Environment

	Specialized consultants to support M&E system, conduct independent Mid-Term and Final evaluation of the project	0	0	117,000		117,000	0	117,000	Ministry of Environment
Local Consultants	Technical/specialized local consultants will be hired to support the implementation activities related to assessment of local laboratories capacities and needs for UPOPs measurement, analysis, and prevention measures and assessment of capacities and needs of AQMN infrastructure for UPOPs measurement, analysis, and prevention measures	80,000	0	0	0	80,000	0	80,000	Ministry of Environment
	Technical/specialized local consultants will be hired to map out vulnerable segments of the population susceptible to open burning of waste and Develop interventions plan	60,000	0	0	0	60,000	0	60,000	Ministry of Environment

	Technical/specialized local consultants will be hired to provide support in the adoption of an ISWM approach at the service areas	0	100,000	0	0	100,000	0	100,000	Ministry of Environment
	Technical/specialized local consultants will be hired to monitor and evaluate the implementation of the project components, ensuring its compliance to social and gender measures as well as environmental measures	0	0	288,000	0	288,000	0	288,000	Ministry of Environment
Salary and benefits / Staff costs	Salaries and benefits for all personnel who will be working on the project implementation	0	0	0	0	0	296,000	296,000	Ministry of Environment
Travel	International and Domestic travel and transportation (air, terrestrial, and fluvial), as needed, directly related to the major activities.	0	0	0	0	0	11,300	11,300	Ministry of Environment
Office Supplies	Consumables and office equipment/supplies to be used in the performance of the project.	0	0	0	0	0	18,530	18,530	Ministry of Environment

Other Operating Costs	Operating costs associated with project operation on a day-to-day basis related to technical and administrative management, as bank charges, office costs (rents, utilities, communications, insurance), among others.	0	0	0	0	0	16,000	16,000	Ministry of Environment
Grand Total		1,940,000	5,996,617	405,000	95,000	8,436,617	421,830	8,858,447	
[1] In exceptional cases where GEF Agency receives funds for execution, Terms of Reference for specific activities are reviewed by GEF Secretariat									

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencies is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

