

COUNCIL FOR DEVELOPMENT AND
RECONSTRUCTION (CDR)

**LEBANON GREEN AGRI-
FOOD
TRANSFORMATION FOR
ECONOMIC RECOVERY
(GATE)**

**ENVIRONMENTAL AND SOCIAL
MANAGEMENT FRAMEWORK
(ESMF)**

April 29, 2023

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LIST OF ACRONYMS

ACAPS	Assessment Capacities Project
AUB	American University of Beirut
BAT	Best Available Techniques
BEP	Best Environmental Practices
BMLWE	Beirut and Mount Lebanon Water Establishment
BWE	Bekaa Water Establishment
CAS	Central Administration of Statistics
CBA	Cost-Benefit Analysis
CDR	Council for Development and Reconstruction
CDW	Construction and Demolition Waste
CERC	Contingency Emergency Response Component
CNRS-L	Conseil National de la Recherche Scientifique – Liban (National Council for Scientific Research – Lebanon)
CO	Carbon Oxide
CoM	Council of Ministers
COVID	Corona Virus Disease
CPF	Country Partnership Framework
CSA	Climate Smart Agriculture
ECC	Environmental Compliance Certificate
E&S	Environmental & Social
EHS	Environment, Health, and Safety
EIA	Environmental Impact Assessment
EPC	Environmental Protection Contract
ESCP	Environmental and Social Commitment Plan
ESCWA	Economic and Social Commission for Western Asia
ESF	Environmental and Social Framework
ESFD	Economic and Social Fund for Development
ESHS	Environment, Social, Health, and Safety
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
ESSN	Emergency Social Safety Net
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCV	Fragile, Conflict, and Violence
FX	Foreign Exchange
GATE	Green Agri-food Transformation for Economic Recovery Project
GAP	Good Agricultural Practices
GBV	Gender-based Violence
GBVIMS	Gender-based Violence Information Management System
GCC	Gulf Cooperation Council
GCRF	Global Crisis Response Framework
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gases
GIS	Geographic Information Systems
GOL	Government of Lebanon
GM	Grievance Mechanism

ESMF

GMP	Good Manufacturing Practices
HACCP	Hazard Analysis and Critical Control Points
IBA	Important Bird Area
IBRD	International Bank for Reconstruction and Development
IDAL	Investment Development Authority of Lebanon
IEE	Initial Environmental Examination
IFC	International Finance Corporation
ILO	International Labor Organization
IP	Indigenous Peoples
IPF	Investment Project Financing
IRI	Industrial Research Institute
ISWM	Integrated Solid Waste Management
KBA	Key Biodiversity Area
LARI	Lebanese Agriculture Research Institute
LBP	Lebanese Pounds
LC	Labor Code
LDN	Land Degradation Neutrality
LEPAP	Lebanon Environmental Pollution Abatement Project
LFP	Labor Force Participation
LMP	Labor Management Procedures
LPD	Land Productivity Dynamics
LRA	Litani River Authority
LRF	Livelihood Restoration Framework
LRP	Livelihood Restoration Plan
MCM	Million Cubic Meters
M&E	Monitoring & Evaluation
MENA	Middle East and North Africa
MOA	Ministry of Agriculture
MOE	Ministry of Environment
MOET	Ministry of Economy and Trade
MOEW	Ministry of Energy and Water
MOF	Ministry of Finance
MOI	Ministry of Industry
MOIM	Ministry of Interior and Municipalities
MOL	Ministry of Labor
MOPH	Ministry of Public Health
MOSA	Ministry of Social Affairs
MSW	Municipal Solid Waste
NGO	Non-governmental Organization
NLWE	North Lebanon Water Establishment
NOx	Nitrogen Oxides
NPTP	National Poverty Targeting Program
NSDSL	National Social Development Strategy of Lebanon
NSEQ	National Standards for Environmental Quality
OHS	Occupational Health and Safety
OMSAR	Office of the Minister of State for Administrative Reform
PAPs	Project Affected Parties
PCU	Project Coordination Unit
PDO	Project Development Objective
PIA	Project Implementing Agency
PM	Particulate Matter
PMU	Project Management Unit
POM	Project Operational Manual
PPE	Personal Protective Equipment
REP	Roads and Employment Project
SC	Steering Committee
SDATL	Schéma Directeur d'Aménagement du Territoire Libanais
SDG	Sustainable Development Goal
SEA	Sexual Exploitation Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SME	Small and Medium sized Enterprises
SOER	State of the Environment Report

ESMF

SOP	Standard Operating Procedures
SOx	Sulfur Oxides
SW	Solid Waste
SWM	Solid Waste Management
SWMF	Solid Waste Management Facility
TA	Technical Assistance
TPM	Third-Party monitoring
TSP	Target Setting Process
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHRC	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
UPOPs	Unintentionally released Persistent Organic Pollutants
US EPA	United States Environmental Protection Agency
USAID	United States Agency for International Development
USD	US Dollars
WB	World Bank
WBG	World Bank Group
WE	Water Establishment
WFP	World Food Program
WHO	World Health Organization
WWTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

This Environmental and Social Management Framework (ESMF) is prepared for the Green Agri-food Transformation for Economic Recovery Project (GATE). The Project will be implemented by the Council for Development and Reconstruction (CDR) and funded by the World Bank. The purpose of the Environmental and Social Management Framework is to outline expected environmental and social risks and impacts of the project and to provide a system for monitoring and managing such impacts during project implementation. Additionally, this framework describes institutional roles and responsibilities for managing environmental and social risks under the project, and the feedback and grievance mechanisms by which affected and other interested parties can interact with the project implementation agency.

Project Background

To meet Lebanon's developmental needs in the agriculture sector while also stimulating the economy and creating jobs, The Lebanese Government has requested the World Bank's approval of the Green Agri-food Transformation for Economic Recovery Project (GATE).

The GATE project would have national coverage with a focus on lagging rural regions following a cluster approach. The overall Project implementation shall be led by the Council for Development and Reconstruction (CDR) as project Implementing Agency (PIA), through a Project Coordination Unit (PCU).

Project Scope

The Project consists of four (4) components plus a Contingent Emergency Response Component (CERC). The project will be implemented over a period of 5 years.

Component 1: Climate Smart Investments in Agri-food Value Chains

The objective of this component is to provide access to finance to strengthen the resilience and improve the competitiveness of agri-food value chains. The component would promote climate smart practices, creating higher value addition, improving links between farmers, agribusinesses and markets, and unlocking diversification opportunities through agri-tourism. The project would finance activities specifically designed to benefit women and will seek to contribute in reducing some of the gender gaps identified in terms of access to finance, inputs, markets, technical capacity building activities, improved confidence and negotiation skills as well as addressing social norms through carefully designed behaviorally-informed outreach campaign, also targeting men.

This component will consist of two subcomponents:

- Sub-component 1.1: Development of climate smart value chains through improved aggregations and
- Sub-component 1.2: Support to Agrifood and Agritourism MSMEs

Component 2. Climate-Smart Infrastructure and Services for Agri-food Development

The objective of this component is to restore service delivery, build operational capacity and ensure the sustainability of public infrastructure underpinning the agri-food sector across necessary scales. The component would finance resilient investment in public rural

infrastructure development and public services, deemed essential to enhancing competitiveness and sustainability of the agri-food sector. It will also generate large indirect benefits for host communities and displaced populations through several channels.

Component 2 will be structured across two sub-components:

- Sub-component 2.1 Strengthening Rural Community Infrastructure;
- Sub-component, and 2.2 Restoring Access to Improved Services and Infrastructure Assets Underpinning Agriculture

Component 3: Improving the Enabling Environment and Restoring Support Services for Agri-food Development

The objective of this component is to restore and strengthen the capacity of sector institutions to support the agri-food sector transformation.

Component 3 consists of three sub-components:

- Sub-component 3.1: Improving access to climate-smart agriculture practices, data, and knowledge
- Subcomponent 3.2: Strengthening food safety and security
- Sub-component 3.3. Improving agri-food export promotion and marketing systems

Component 4: Project and Knowledge Management

This component would support the coordination and management of the implementation of the project.

Component 5:

This component will have zero funding allocation at the onset and will only be triggered in emergency circumstances; the project will support the preparation of a procedure manual governing the CERC operations.

Environmental and Social Impacts of the Project

Overall, the project is expected to be beneficial to the country and the people by reducing pollution and protecting the environment, incurring significant positive environmental and social benefits. The successful implementation of the project will create job opportunities and improve the agri-food business by promoting green, climate resilient productive and inclusive agri-food development in the project designated areas.

Nevertheless, it is possible that potential environmental and social impacts and risks may still come out with varying degrees from the specific activities of the project.

Table I Environmental Risks– Construction/Rehabilitation Phase

Impact	Description
Air quality	Civil works will be required for construction and rehabilitation activities, which can cause temporary ambient air pollution, dust emissions, and may cause additional uncontrolled release of gas (under sub-component 1.1, 1.2, 2.2 and 3.2).
Noise	Construction and rehabilitation activities can cause temporary noise pollution. (under sub-component 1.1, 1.2, 2.2 and 3.2).
Soil and water quality	Soil erosion from exposed land surfaces caused by vegetation clearing Site Levelling, Excavation and Soil Compaction Activities (under sub-component 1.1, 1.2, 2.2 and 3.2).
Biodiversity	Loss or destruction of habitat; Possible impacts on ecosystems if the new WWTFs are constructed on Greenfields

Impact	Description
	Potential for forest fires from construction or workers' activities (under sub-component 1.1, 1.2, 2.2 and 3.2).
Waste management	Construction and rehabilitation activities will lead to the generation of wastes
Cultural Heritage	The project activities are not likely to impact any known tangible cultural heritage sites or intangible cultural heritage practices or knowledge; however, chance finds might be encountered (under sub-component 1.1, 1.2, 2.2 and 3.2).
Occupational Health and Safety	Potential accidents Exposure of workers and community to potential health and safety hazards (under sub-component 1.1, 1.2, 2.2 and 3.2).

Table II Environmental Risks– Operation Phase

Impact	Description
Air Quality	✓ Odor emissions from WWTP and generated sludge, and from SWM treatment facilities (including composting operations) (under subcomponent 2.2) ✓ Air emissions from agro-food processing establishments (under subcomponent 1.2) ✓ Risk of wild fires due to agricultural waste burning (under subcomponent 1.1 and 1.2)
Soil and water quality	✓ Unregulated abstraction of irrigation water leading to water depletion (under subcomponent 1.1 and 1.2) ✓ Improper disposal of drainage water, contributing to the contamination of water courses (under subcomponent 1.1 and 1.2) ✓ Improper storage and/or disposal of sludge from WWTP (under subcomponent 2.2) ✓ Improper waste and effluent disposal from SMEs, laboratories and testing facilities' operation activities, and agri-tourism activities/ establishments (under subcomponent 3.2) ✓ Uncontrolled operation of SWM facilities leading to contamination of soil and groundwater with leachate (under subcomponent 2.2); ✓ Uncontrolled operation of WWTPs leading to contamination of soil and groundwater (under subcomponent 2.2); ✓ Soil and water contamination from fertilizers and pesticides overuse (under subcomponent 1.1 and 1.2) ✓ Soil and water contamination from inadequate disposal of electronic waste (under subcomponent 3.1);
Biodiversity	✓ Population decline and mortality in fauna species, especially reptiles Reducing environmental flows necessary for aquatic biodiversity

Table III Social Risks– Construction/Rehabilitation Phase

Impact	Description
Loss of land (mainly expected under sub-components 1.1, 1.2 and 2.2)	The loss of land and assets on land (crops, trees and structures) due to construction works is anticipated during sub-components 1.1, 1.2 and 2.2 implementation, hence resulting in people's potential displacement and/or assets loss
Nuisance from construction and rehabilitation works,	Construction and rehabilitation works lead to nuisances to nearby communities from air pollutants and dust emissions, noise, traffic, etc. under sub-component 1.1, 1.2 and 2.2..
Restricted access to property	In specific cases, it might lead to temporarily restricting access to certain lands and resources, and risk on ecosystem services from the construction and rehabilitation of infrastructure under sub-component 1.1, 1.2 and 2.2.
SEA/SH, child labor and forced labor	✓ Influx of workers may induce risks of SEA/SH/ GBV. under subcomponents 1.1 1.2 and 2; ✓ Risk of child labour and forced labour under subcomponents 1.1, 1.2 and 2.2.
Inadequate stakeholder engagement	Risk of weak and inadequate stakeholder engagement and resulting exclusion of certain vulnerable groups
Improper/Inadequate GM dissemination	Risk of weak and ineffective communication and dissemination of the project grievance mechanism, thus resulting in the perception of exclusion and therefore rising social tensions

Table IV Social Risks - Operation Phase

Impact	Description
Weak consultation and exclusion of vulnerable groups	✓ Risk of exclusion of potential smallholder farmer beneficiaries, SMEs, vulnerable women led farmers and women rural entrepreneurs, youth and workers/labour under subcomponent 1.1. ✓ Potentially weak overall consultations and outreach on project information dissemination.
Community health and safety	✓ Possible use of polluted irrigation water affecting food safety, community health and safety under component 1.1 and 1.2.2 ✓ Unsustainable use of water resources that could limit access of communities to such resources
SEA/SH, OHS risks	✓ Influx of workers may induce risks of SEA/SH under subcomponent 1.1, 1.2 and 2.2. ✓ Daily activities in the agri-food value chain are associated with OHS risks under subcomponent 1.2 ✓ Risk of child labour, especially in the agriculture sector under subcomponent 1.1, 1.2 and 2.2 ✓

Risk Classification And Impact Management for The Sub-Projects

The anticipated subprojects are screened to determine the significance of associated environmental and social risks. The screening is undertaken in line with WB ESF Environmental and Social Risk Classification rating risks as High, Substantial, Moderate and Low Risks.

As per the analysis, mitigation measures and environmental and social risks of sub-projects envisaged under the Project, Table V describes the risk ratings given for the different types of project activities and the environmental and social management tools to be developed and implemented within the project. However it must be noted that the risk ratings of expected project activities suggested in Table V are preliminary and will be determined during the preparation of site-specific E&S documentation.

Table V Sub-projects Environmental and Social (E&S) Risk Classification and E&S Management Tools

Risk Rating	Definition	Project Activity	Applicable E&S Tools
High	The project will possibly cause a wide range of significant environmental and social risks and adverse impacts on the population and environment. Some of the impacts cannot be mitigated by now, or with special situations such as requiring complex and / or unproven mitigation and/or compensation measures or techniques.	None identified.	Not Applicable
Substantial	Some of the E&S impacts of the project are possibly significant, but with reliable mitigation and/or compensation measures will be designed.	Construction and rehabilitation of wastewater infrastructure Operation of large waste management facilities, wastewater treatment plants, major water	ESIA, ESMP LRP (if triggered)

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Risk Rating	Definition	Project Activity	Applicable E&S Tools
		abstraction activities, constructing rural roads with new right of way, etc..	
		Optimization or working capital for existing facilities	Environmental and Social Audit
Moderate	The project has potential E&S risks or adverse impacts which are possibly not significant and can be mitigated in predictable ways.	✓ Rehabilitation of Al-Qasimia - Ras Al-Ain irrigation project; ✓ rehabilitation and completion of the 45 km irrigation network serving the Saida-Jezzine irrigation project ✓ Treatment of the irrigation water quality of Canal 900; ✓ rehabilitation and refurbishment of the sorting and composting facility in Srar and completing the sanitary landfill in Srar which is already excavated; ✓ rehabilitation of the existing sorting and composting facilities of Joub Jannine, Zahle, Baalbeck and Barr Elias and upgrading existing landfills through the provision of leachate and gas extraction systems; ✓ rehabilitation of the mechanical biological treatment facility in Saida and rehabilitation of the non-operational sorting and composting facilities in Ain Baal and Kfour; ✓ upgrading sanitary landfills at the level of <u>all SW</u> service zones to reduce the scale of open dumping in rural areas ✓ Optimizing the operation of existing WWTPs (including sludge management), sewage and solid waste management systems. ✓ operation of SMEs (component 1.2), and small holder farming activities	ESMP
		Optimization or working capital for existing facilities	E&S audit
Low	The potential adverse risks and impacts on humans and / or the environment may be small or	Soft activities (Upgrading the infrastructure of labs and testing facilities)	E&S screening and inclusion of potential impact as

Risk Rating	Definition	Project Activity	Applicable E&S Tools
	negligible.	under components 2.1 and 3	part of the procurement documents

The site-specific ESIA or ESMP will be prepared as per the ESCP in accordance with national legislation and World Bank ESS1, incorporating requirements of other relevant ESSs, and applicable national regulations. The ESIA/ESMP report, strengthened by the standards of ESS1 of the World Bank as the primary means of documenting the environmental and social sustainability of a project, provides guidance to project decision makers on the environment, as well as social acceptability of the project activities, and permits planning and investment decisions to be made on a comprehensive understanding of the anticipated project impacts.

The site-specific environmental and social assessment of these activities, or subprojects, will be carried out after the sites have been selected and the specific details, including the location, conceptual design, and detailed engineering design, will be determined during the first year of the project implementation. The preliminary risk rating will also be reconsidered at this stage.

Stakeholder Identification and Consultation

The main objectives of stakeholder consultation meetings were to introduce the GATE project, its objectives, beneficiaries and components, as well as presenting the ESMF and GM.

For the purposes of effective and tailored engagement, stakeholders of the proposed project were divided into the following 3 categories, as detailed in the SEP document:

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.

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 implementation in some way.

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.

Stakeholder engagement has been important in the project development and preparation of this ESMF. Three consultation meetings were conducted in Baalbeck- Hermel, Akkar, and South- Nabatiyeh, on 15, 16 and 17 February 2023 respectively.

The meetings participants were mainly from governmental institutions, municipalities, farmers, women, NGOs, cooperative unions, heads of syndicates, private sector and SMEs.

During the consultations, the project details (background, objectives, and components), its potential environmental and social impacts, and the grievance mechanism were presented by the ESFD who then presented each component in detail, followed by 30 minutes of open discussions with the attendees to solicit suggestions following each component's presentation, in each of the locations. Based on suggestions received during the consultation workshop the ESMF, LMP, SEP and RPF documents have been updated.

Institutional Arrangements

The overall Project implementation would be led by the CDR as Project Implementing Agency (PIA), through a PCU.

The main governmental agencies involved in the project's components implementation are as follows:

- Kafalaat;
- Ministry of Agriculture;
- Ministry of Industry;
- Lebanese Agricultural Research Institute;
- Green Plan;
- Ministry of Economy and Trade;
- Ministry of Energy and Water;
- Litani River Authority;
- Water Establishments;
- Ministry of Environment;
- Governorates;
- Municipalities; and
- Union of Municipalities.

Grievance Mechanism (GM)

Grievance mechanisms (GMs) refer to the formal institutions and channels that capture beneficiary complaints or grievances related to targeting, service delivery, or other program functions, and provide redress. GMs are not just developed for complaints but for two-way communication where feedback, concerns and questions can all be raised.

The GM aims to provide individuals and communities who feel aggrieved by Project activities with accessible, timely, effective and culturally appropriate opportunities to raise their complaints, feedback, concerns and questions about the Project. It also aims to identify, propose and implement fair and appropriate solutions in response to the complaints and concerns raised. The GM will be widely disseminated to be accessible to all relevant stakeholders including vulnerable groups who can use this mechanism to send their suggestions, concerns and complaints related to the project. The complaints, suggestions and concerns can be sent by e-mail, SMS or phone to the CDR PCU Grievance Mechanism Officer and Environmental & Social specialist.

1. PROJECT DESCRIPTION

1.1 PROJECT BACKGROUND

Lebanon is three years into multiple unprecedented crises that have erased 15 years of economic growth. The crisis started with the acute economic and financial collapse and was compounded by the Corona Virus Disease COVID-19 pandemic, the Port of Beirut explosion, and the spillover effects of the war in Ukraine. The collapse of the local currency and ensuing economy-wide shortages in foreign exchange (FX) have resulted in sharply increasing costs across sectors. The adverse shocks have driven an overwhelming share of the population into poverty and vulnerability to food insecurity.

The crisis is disproportionately affecting lagging and under-served rural areas. Existing disparities across urban and rural areas as well as between rural areas have been accentuated by the crisis. The poorest areas - Baalbek-Hermel, Akkar, the North and the South/ Nabatieh (IPC, Lebanon 2022) have seen disproportionate declines across a range of socioeconomic indicators.

Despite the dire situation in Lebanon, the agri-food sector has demonstrated resilience and continues to generate livelihoods and income for a large share of the poor (IDAL, 2020). Nevertheless, it is facing several barriers that are limiting its productivity growth, such as:

- i. the global rise in fertilizers and fuel prices, compounded by the foreign exchange crisis;
- ii. Lack of financial means to invest in sustainable, climate smart and modern modes of production;
- iii. Lack of access to basic infrastructure and services such as electricity, municipal water services or water treatment plants and solid waste management and roads, and more so in rural areas; as well as lack of efficient irrigation schemes; and
- iv. Climate change effects and threats to the agricultural sector.

The multiple challenges facing the sector are putting its resilience and sustainability at risk and posing threats to food security and rural livelihoods.

The 2019 Lebanon Economic Vision (known as the McKinsey Plan), has identified agriculture among five key sectors to induce growth, reduce the country's balance of payment deficit, and create jobs. Lebanon's National Agriculture Strategy (NAS 2020-2025) aims to transform the Lebanese agrifood system to be more resilient, inclusive, competitive, and sustainable. However, the financial crisis limits the operations of key government actors involved in the governance of the sector and paralyzes their ability to implement sector strategies and initiatives.

To meet Lebanon's developmental needs in the agriculture sector while also stimulating the economy and creating jobs, The Lebanese Government has requested the World Bank's approval of the Green Agri-food Transformation for Economic Recovery Project (GATE) through a US\$200 million Loan from the International Bank for Reconstruction and Development (IBRD).

The GATE project would have national coverage with a focus on lagging rural regions following a cluster approach. The overall Project implementation shall be led by the Council for Development and Reconstruction (CDR) as project Implementing Agency (PIA), through a Project Coordination Unit (PCU).

1.2 PROJECT OBJECTIVES

The Project Development Objective (PDO) is to strengthen the resilience and competitiveness of the Lebanese agri-food sector. Resilience refers to the capacity of the agrifood-sector stakeholders (i.e., farm producers and processing businesses) to respond to shocks and adapt to changing political, social, environmental and climatic constraints. Resilience of farm households, will be promoted by strengthening the adaptive capacity in choosing and applying climate smart on-farm technologies that enable them to move toward more resource efficient and environmentally sustainable production practices, leading to increased incomes, yields and more effective participation in climate-smart agri-food value chains. Resilience of agri-food businesses will be promoted by addressing constraints to value-addition, product quality, and exports that thus strengthens SME's adaptive capacity to better manage business risks, understand new business opportunities, leverage comparative advantages, and hence continue to be profitable.

- 1.3** THE PROJECT WILL BENEFIT A BROAD RANGE OF STAKEHOLDERS IN RURAL AREAS, THROUGH ACTIVITIES AIMED AT PROMOTING THE INCLUSION OF SMALL FARMERS IN AGRICULTURE-RELATED ENTREPRENEURIAL ACTIVITIES AND MEDIUM-SIZE PRODUCERS AND ENTERPRISES WITH MODERN VALUE-CHAINS. **DIRECT PROJECT BENEFICIARIES WILL INCLUDE WOMEN, YOUNG PEOPLE AND DISPLACED POPULATIONS, SMALL AND MEDIUM-SIZE FARMS, MICRO, SMALL AND MEDIUM ENTERPRISES (MSMEs) AND OTHER ECOSYSTEM STAKEHOLDERS ENGAGED IN THE AGRI-FOOD SECTOR. THE PROJECT WILL DIRECTLY BENEFIT APPROXIMATELY 15,000 FARMING HOUSEHOLDS, 315 SMEs AND 2,000 MICROENTERPRISES AND FARMERS THROUGH ACCESS TO FINANCE, AND 353 MUNICIPALITIES THROUGH IMPROVED SERVICES AND INFRASTRUCTURE. A BROADER RANGE OF STAKEHOLDERS, SUCH AS AGGREGATORS, TRADERS AND EXPORTERS AND OTHER ECOSYSTEM STAKEHOLDERS, WILL ALSO BENEFIT FROM THE INCREASED EFFICIENCY OF MARKETING, THE DEVELOPMENT OF INNOVATIONS IN DIGITAL AGRICULTURE, IMPROVED FOOD SAFETY AND QUALITY AND EXPORT OPPORTUNITIES. LEBANESE CONSUMERS WILL BENEFIT FROM SAFER AND BETTER-QUALITY PRODUCTS. FINALLY, THE GOVERNMENT AGENCIES INVOLVED IN THE PROJECT WILL BENEFIT FROM INCREASED CAPACITY TO IMPLEMENT THEIR MANDATES AND TO MONITOR AND EVALUATE THE RESULTS OF THEIR RESPECTIVE PROGRAMS. PROJECT SCOPE**

The Project consists of four (4) components plus a Contingent Emergency Response Component (CERC). The project will be implemented over a period of 5 years.

The project components will support the (i) provision of capacity building and financial support to farmers and agribusinesses to sustainably restore agricultural productivity and competitiveness in agri-food value chains and agri-tourism in support of diversified livelihoods and jobs creation, (ii) greening and improving access to services such as irrigation, community-scale water and wastewater facilities, and solid waste management through rehabilitation and introduction of renewable energy sources, (iii) enhancing the institutional enabling environment, building capacity to accelerate the use of climate smart innovation and digital technologies, and improving the enabling environment for food safety and exports, and (iv) project management.

Component 1: Climate Smart Investments in Agri-food Value Chains (US\$74million)

The objective of this component is to provide access to finance to strengthen the resilience and improve the competitiveness of farmers and MSMEs involved in agri-food value chains³⁹. The component will promote climate smart practices, create higher value addition, improve links between farmers, agribusinesses and markets, and unlock diversification opportunities. The project will finance activities specifically designed to benefit women and seek to contribute in reducing some of the gender gaps identified in terms of access to finance, inputs, markets, technical capacity building activities, improved confidence and negotiation skills as well as addressing social norms through a carefully designed behaviorally informed outreach campaign, also targeting men.

Sub-component 1.1: Development of climate smart value chains through improved aggregation (US\$20 million). The objective of this subcomponent is to strengthen farmers' organizations (cooperatives and associations) by boosting climate smart agricultural production and promoting farmers horizontal- linkages with other smallholders and vertical linkages with buyers/off-takers⁴⁰, thus enhancing their participation in value addition. Support to farmers' organizations will include technical assistance, training and matching grants.

Specifically, the component would finance: (i) a gender-sensitive communication campaign, to encourage existing organizations of small- and medium-size agricultural producers of crop and livestock products to engage in collective action to generate aggregation potential such (ii) competitively selected service provider/s to administer the matching grants, assist producers with the preparation and implementation of climate-informed business plans, and provide training to farmers' organizations members on business and financial management, governance, and when relevant, technical assistance to link formalized producer groups to off-takers; (iii) matching grants to finance the climate-informed business plans of eligible farmers' organizations. (ii) The training of the group members to enable them to adopt the specifications and standards of the off-taker or target market would be provided through Component 3.1.

Climate Smart Matching Grants. The objective of the matching grants is to finance climate-informed business plans to strengthen the resilience and competitiveness of farmers' organizations. Existing farmers' organizations (cooperatives and associations) will be supported to identify common user assets, infrastructure or services, develop joint climate informed-business plans, and apply for Climate Smart Matching Grants (MG) of up to US\$25,000 per business plan. Specifically, the MGs would be available for cooperatives and other established groups of farmers, including formalized water users' associations, to meet the market requirements of off-takers and for the adoption of climate smart agricultural practices. The eligible investments for the matching grants would include, inter alia: greenhouses, solar panels, small scale processing units, improved irrigation systems, improved onfarm wastewater and solid waste (e.g. composting) management, energy-efficient processing equipment, greenhouses, storage and cold storage, agricultural machinery, food quality and safety equipment, certification and other investments for value addition and market access. The groups will be expected to cover their input needs (such as seeds, fertilizer and other inputs) from their own financial resources or through micro loans under sub-component 1.2. Contributions from applicants will also be requested, representing a minimum of 20 percent of the total investment, which can be provided in-kind or in cash. Such contribution will be lower for women's groups, at 10 percent minimum, due to lack of assets ownership. To improve resilience to shocks of smallholder farmers, applicants will be incentivized to contribute to a health insurance plan. The MGs would be awarded following a transparent mechanism to ensure compliance with technical, financial, social, and environmental parameters detailed in the Project Operational Manual (POM) together with the eligibility criteria. The selection process will be carefully developed to ensure equal access to opportunities for vulnerable groups, including women and youth. The component will be technically led by MoA and implemented by the Project Coordinating Unit (PCU) under the CDR. A service provider will be recruited competitively as a grant administrator.

Sub-component 1.2: Support to Agrifood MSMEs (US\$54 million). The objective of this sub-component is to support viable agri-food Micro, Small and Medium Enterprises (MSMEs) and farmers with access to finance. It aims to provide urgent liquidity in the form of loans for investment and working capital financing to eligible SMEs currently credit constrained and struggling to finance their needs due to the multiple crises hitting Lebanon and the paralysis of the banking system. It will also allow access to micro financing solutions for farmers and microenterprises operating in agrifood value chains through selected Microfinance Institutions (MFIs). The sub-component will be implemented by Kafalat S.A.L, 41 the national credit guarantee agency. Kafalat will act as an intermediary channeling financial resources through two implementation approaches: (i) Retail as direct lending to eligible SMEs, and (ii) Wholesale via selected Microfinance Institutions (MFIs) who will onlend to farmers and microenterprises operating in the agrifood sector. Channeling funds through Kafalat is an emergency measure, in the absence of a functioning banking sector. Three sets of activities will be financed under this subcomponent: (i) Loans to eligible SMEs, (ii) Financing to eligible MFIs for further onlending, and (iii) Technical assistance (TA) and IT systems to strengthen

Kafalat's lending capacity. The preliminary design features of the line of credit (LOC) can be found in Annex 2.

Loans to eligible SMEs (US\$47.6 million). The loans will address the investment and working capital needs of eligible agrifood businesses. Loans will allow for investments in climate-responsive energy provision and resource-efficient production infrastructure and systems, modern machinery and equipment, quality- and certification-related investments that will increase productivity, enable meeting market requirements and improve resilience and environmental compliance, and support expansion and export. Eligible SMEs refer to (i) viable agri-food businesses that have growth potential (in terms of sales, and/or export and/or jobs), (ii) employ fewer than 50 registered employees, (iii) are legally registered and licensed, and (iv) fully operational. Businesses that are women owned or led²or export, or have pre-agreed sales contracts, or have contract farming arrangements, are encouraged to participate in the program. A maximum loan amount of US\$400,000 is envisioned, with a maximum maturity of three years. Further details on the terms and conditions, including pricing, will be detailed in the POM and will be subject to the Bank's no objection. It is expected that around 315 SMEs will benefit from loans by the closing date of the project. Beneficiaries SMEs can also benefit from the export promotion support under Component 3.3.

Financing to eligible MFIs (US\$3 million). The financing will allow selected MFIs to offer new lending products focused on low-income farmers and micro-businesses operating in the agrifood value chain, based on market needs and demand. The funds will allow the deployment of around 2,000 new microloans by the project closing date, with an estimated average of US\$5,000 (revolving, with an estimated average loan maturity of 18 months). The microloans will support small-scale farmers and micro-businesses to use energy efficiency solutions, improve their production capacity and sustain their livelihoods. Moreover, the funds will help sustain the capacity of MFIs by helping them generate revenues during the project life. At project completion, MFIs will return the funds to Kafalat. MFIs will be subject to an institutional and credit assessment to confirm their compliance with eligibility criteria to become and remain participating financial institutions (PFIs) under the project. Eligibility criteria include: i) compliance with applicable laws and regulations and/or good standing with its supervisory authority; ii) qualified and experienced management, adequate governance and institutional capacity for its specific risk profile; iii) well defined policies and written procedures for management of all types of financial risks; iv) adequate internal audits and controls; v) adequate management information systems; and vi) acceptable financial performance. The above criteria will be assessed taking into consideration unique economic context in Lebanon. The assessment will be conducted prior to the first disbursement and annually thereafter, including monthly monitoring of portfolio quality.

To further strengthen the capacity of Kafalat, given that it does not have prior lending experience, the project will support the following: (i) Hiring of experienced loan officers; (ii) Training and capacity building to engage in lending to SMEs, particularly in the agrifood and tourism sectors, and to MFIs; (iii) Development of lending manuals with lending procedures (appraisal, problem loan recovery, etc.); (iv) Strengthening IT systems; (v) Monthly monitoring and reporting on the portfolio quality; and (vi) Support for adherence to the POM. Loan disbursement will commence only upon full operationalization of Kafalat's credit function, including after hiring and training of key experienced staff, when the first phase of TA is completed, lending manuals are developed and adopted, and IT systems are in place. A performance assessment will be conducted in the project's initial phases. Moreover, the first five SME loans will be subject to no-objection by the Bank.

The GoL will delegate through a subsidiary agreement the implementation and management of the sub-component to Kafalat. Given the insolvency of the banking sector and the delay in restructuring the banking sector, channeling funds through Kafalat was identified as the optimal solution to ensure targeted beneficiaries, who currently have no access to finance, including their own resources, get the financial support needed to sustain and expand their operations. A financial intermediary assessment was undertaken according to Financial Intermediary Financing (FIF) guidelines to confirm that Kafalat is capable of playing this intermediary role and justifying the rationale for concessional debt financing through a non-bank financial institution. The proposed implementation arrangement under this subcomponent is a temporary emergency measure. It is

time-bound and will be phased out with the banking sector restructuring and financial intermediation recovery.

By stabilizing and improving agri-food systems through supporting farmers groups and MSMEs operating across the agrifood value chains, Component 1 will sustain and create livelihood opportunities for Lebanese host communities, youth, women and displaced population.

Component 2. Climate-Smart Infrastructure and Services for Agri-Food Sector Development (US\$100 million)

The objective of this component is to restore service delivery, build operational capacity and ensure the sustainability and climate-resilience of public infrastructure underpinning the agri-food sector. It will be structured across two sub-components: Sub-component 2.1: Strengthening Rural Community Infrastructure; and Sub-component 2.2: Restoring Access to Improved Services and Infrastructure Assets Underpinning Agriculture.

The component will finance investment in selected public rural infrastructure and services deemed essential to enhancing competitiveness and sustainability of the agri-food sector and to making it more climate-responsive. These will include the following types of investment: (i) rehabilitation and modernization of public irrigation infrastructure including small community-/farmer-led irrigation developments (FLID) as well as larger agency-managed public irrigation infrastructure; (ii) rehabilitation of rural feeder roads; (iii) rehabilitation local agricultural markets; (iv) optimizing the operation of existing wastewater (WW) treatment systems (including sludge management and WW re-use for agriculture); (v) optimizing the operation of existing solid waste (SW) management systems.

The component will generate large benefits for host communities and displaced populations through several channels. First, food production will likely increase, leading to greater availability and accessibility of food for host communities and displaced populations alike. Second, enhanced agricultural infrastructure will contribute to economic growth, leading to employment opportunities for both skilled and unskilled workers. Third, restoring basic infrastructure will also ensure that host communities and displaced population have access to clean water and sanitation, critical for well-being and public health. Finally, investments in local infrastructure can help foster social cohesion between host communities and displaced populations by working together on shared objectives and benefiting from improved infrastructure, reducing tensions and promoting social integration.

Sub-component 2.1. Improving Rural Community Infrastructure for Agriculture (US\$31 million)

The objective of this sub-component is to improve rural community infrastructure to support agri-food development. It will focus on financing of water storage, small community-/farmer-led irrigation networks, rural roads, as well as farmer markets, and other demand-driven agricultural sub-projects. The sub-component will be implemented by the Green Plan in close coordination with respective unions of municipalities or individual municipalities and MoA. Operation and Maintenance (O&M) will be the responsibility of the unions of municipalities or individual municipalities.

Unions of Municipalities or individual municipalities and associated stakeholders⁴³ will develop and promote investment proposals (Community Infrastructure Sub-projects) for project support. Fund allocations will be regionally balanced, identified and prioritized through an inclusive participatory process, with sub-projects evaluated against a set of eligibility and selection criteria, which will be defined in the POM. Indicative criteria will include the following: (i) the degree of food insecurity and poverty impact; (ii) the level of agricultural activity; (iii) synergies with Component 1; (iv) climate co-benefits and environmental sustainability; (v) commitment to sustainable operation and maintenance arrangements; and (vi) local ownership as expressed through co-financing commitments by unions of municipalities or individual municipalities.

Yearly calls for proposals from unions of municipalities and individual municipalities will be issued at governorate level in the first three years of project implementation, supported by an extensive communication campaign. Pre-screening of proposals will be conducted by the Green Plan and

validated with local communities. A technical evaluation committee, consisting of representatives from the Ministry of Agriculture, governorates, farmers, civil society and the private sector, will review and approve the final list of projects.

This sub-component will finance: (i) consultancy services, including feasibility studies, engineering designs, as well as the preparation of Environmental and Social Impact Assessments (ESIAs); (ii) communication campaigns, information and consultations; (iii) the selected Community Infrastructure Sub-projects; and (iv) institution strengthening of relevant institutions, such as irrigation and water user associations, which assume system operation, maintenance and management responsibility for hill lakes and associated irrigation distribution network.

Strengthening rural infrastructure is expected to generate substantial co-benefits for climate change adaptation and mitigation. By enhancing local agricultural infrastructure, the project will improve the resilience of rural communities to climate-related shocks, such as extreme weather events and water scarcity. Hill lakes, for instance, add a source of irrigation water that can be used to supplement rainfed production – thereby making it more resilient. Moreover, the prioritization of environmentally sustainable interventions will reduce the sector's carbon footprint and promote low-carbon development, producing climate change mitigation co-benefits.

Sub-component 2.2. Restoring Access and Protecting Agency-managed Infrastructure and Services Underpinning Agriculture (US\$69 million).

The objective of this sub-component is to restore access to essential services and protect infrastructure underpinning the resilience and competitiveness of agri-food systems. Adopting a systems perspective, interventions will aim to ensure basic system functionality through investments in the rehabilitation of existing public infrastructure and the lowest possible level of complexity of interventions in the underpinning systems. This approach will allow to balance the risk of ineffective isolated investments with implementation risks linked to complexity. It also maximizes the use of available resources and avoid investments in new infrastructure in the current context.

The sub-component's scope will include infrastructure rehabilitation in the following sectors identified as critical to the continued viability of the agri-food sector: agency-managed irrigation schemes, and wastewater management (WWM), and solid waste management (SWM). The scope of investments will commensurate with the effectiveness of restoring the functionality of the smallest viable service area applicable to the specific service or infrastructure, such as irrigation perimeters and wastewater management networks.

The Sub-component will adopt a framework approach by which a list of pre-identified investments will undergo an assessment to validate the technical, economic, social and environmental performance of each sub-project. Eligible investments will have to meet the following criteria: (i) investments focus on rural areas and directly benefit the agri-food sector providing a service; (ii) interventions targeting the rehabilitation, reactivation, and protection of existing infrastructure assets, preventing further deterioration and loss of public assets from neglect; (iii) priority investments supported by national sectoral strategies and masterplans; (iv) resilient system design supported by sustainable operation and maintenance (O&M) plans; (v) complexity of investment is aligned to institutional capacity to reduce implementation risk; and (vi) sub-projects are validated through inclusive stakeholder consultations.

This Sub-component will finance: (i) consultant services for feasibility studies, engineering designs and supervision, Environmental and Social Impact Assessments (ESIA), and O&M action-plans related to selected sub-projects; (ii) communications and community consultations; (iii) technical assistance and capacity building of relevant agencies; and (iv) the selected Public Infrastructure Sub-projects.

Irrigation. Irrigation sub-projects supported under the project will be fully aligned with the National Water Sector Strategy 2020–2035 (NWSS 2035). NWSS projects in the water, wastewater and irrigation sectors were pre-selected as part of the prioritization process applied by the MOEW. A list of pre-selected sub-projects proposed for inclusion in this project includes the following: (i)

rehabilitation and completion of the construction of the 45 km irrigation network serving the Saidajezine irrigation scheme under the Litani River Authority (LRA); (ii) rehabilitation of Qasmieh-Ras El Ain irrigation scheme under LRA, and (iii) filtration and treatment of the irrigation water quality of Canal 900 under LRA. In addition, there are six smaller irrigation projects prioritized for inclusion in Akkar, managed by the North Lebanon Water Establishment (NLWE), and another five schemes prioritized for the Northern Bekaa region managed by the Bekaa Water Establishment (BQWE).

Wastewater management: Interventions in wastewater management will include the rehabilitation and expansion of existing wastewater networks and WWTPs which are not operational due to lack of operational budget and which have significant impact on surrounding agricultural lands as well as investments for the reuse of treated wastewater in agriculture in existing secondary or tertiary WWTP to reduce the impact on water resources in agricultural areas.. Investments in wastewater will be in line with MoEW's update of the "National Water Sector Strategy of 2020" and in line with the "Recovery Roadmap of the Water Sector of 2022".

Solid waste management: Interventions in solid waste could include the rehabilitation of existing solid waste management infrastructure which will (i) reduce the impact of illegal open dumping on agricultural lands and water resources (groundwater and surface water pollution, as well as clogging of irrigation canals); and (ii) increase the supply of compost as an alternative to imported synthetic fertilizers.

The sub-component will provide dedicated technical assistance and capacity building to implementing entities. Support will be demand-based and flexibly tailored to (i) pre-identified needs as listed below, as well as (ii) needs revealed during implementation. Pre-identified needs per type of intervention are:

- a. **Irrigation and Water Waste Management:** Irrigation investments will be accompanied by technical assistance to prevent the risks of water resource deterioration either in the form of depletion (overdraft) and pollution (from non-point agricultural sources): (i) groundwater information system to monitor saline intrusion along the Southern Lebanon coastline; (ii) preparation of drought risk management plans in the Litani river basin; (iii) preparation of groundwater management plans for the extended Canal 900 scheme.
- b. Furthermore, and in accordance with Law 221 192, the Sub-component will build the capacity of Water Establishments in providing support to water user associations their establishment and development into legally recognized, member-based organizations, which are open to municipal membership or partnership. Their main responsibilities will include the operation, maintenance, and management of secondary and tertiary irrigation infrastructure. WUOs will also have a role in allocation and coordinated management of water resources at the system levels.
- c. Capacity building to the Green Plan, Water Establishments (WEs), LRA and local authorities will be provided, as needed, for meeting their responsibilities in the operation and maintenance of irrigation and WW investments as well as their financial sustainability. Strengthening the legal and institutional capacities of the irrigation sector would include the finalization and adoption of wastewater and sludge reuse standards.
- d. **Solid Waste Management:** Promoting the adoption of an integrated approach at the level of solid waste service zone by complementing the on-going efforts for the development of local solid waste Masterplans. This will include support to awareness and communication campaigns, engagement of local communities in the design and implementation of the proposed SWM systems and strengthening the financial sustainability of the SW investments. Needed capacity building will be provided to local authorities to meet their roles and responsibilities in the operation of the investments and to MoE in monitoring the implementation of the SW Masterplans.
- e. Technical assistance will also be provided to concerned stakeholders to strengthen environmental governance of the Litani River Basin to prevent further degradation of water and land resources in this basin which are significantly affecting agricultural development.

The sub-component will be implemented by CDR, in close coordination with respective municipalities, union of municipalities and sectoral ministries. These include the Ministry of Environment (MoE), the Ministry of Energy and Water (MoEW), the Ministry of Agriculture (MoA), Litani River Authority (LRA), and concerned Water Establishments (WEs). The roles and responsibilities (including O&M) of the different institutions responsible for the public investments which will be implemented under the project are indicated in Annex 2.

The sub-component will yield significant climate co-benefits for both adaptation and mitigation. By improving the resilience and efficiency of infrastructure systems, such as irrigation and wastewater management, the project will enable rural agricultural communities to better adapt to the impacts of climate change. Enhanced water management practices will contribute to more effective use of water resources in the face of increased water scarcity due to climate change. Moreover, the integration of renewable energy across all interventions will reduce greenhouse gas emissions and promote low-carbon development. Improved solid waste management systems will also minimize the release of methane, a potent greenhouse gas, from landfills and waste disposal sites.

Component 3: Improving the Enabling Environment and Restoring Support Services for Agri-food Development (US\$20 million)

The objective of this component is to restore and strengthen the capacity of sector institutions to support the recovery and transformation of the agri-food sector. The component will be implemented by the PCU under the technical leadership of the Ministry of Agriculture (Sub-component 3.1 and 3.2) and the Ministry of Economy and Trade (Sub-component 3.3).

Sub-component 3.1: Improving access to climate-smart agriculture practices, data, and knowledge (US\$5 million). This sub-component aims to improve the knowledge base for decision-making in the agri-food sector, including for policy makers, farmers, and agribusinesses, and to accelerate the use of digital innovations and tools in areas such as land use monitoring and agricultural extension system. It will finance: (i) a food system diagnostic, including agricultural and industrial censuses;⁴⁴ (ii) a land productivity map and a land use decision tool; (iii) digitizing the MoA's agricultural services, process and communication, including digitalization of extension services and support for the farmers registry and building the capacity of MoA on the use of remote sensing tools; (iv) the delivery of improved extension services. Training on climate smart practices will be provided to 15,000 smallholders with a farm size of 1 to 50 dunums (10 dunums = 1 hectare); (v) coordination by MoA of agri-food related projects; and (vi) technical assistance for the revision of the social fund law (governing the national social security fund, NSSF) to include agricultural workers.

The improved and digital extension services will include sustainable farming practices and CSA technologies that help improve productivity over the long term, reduce input costs, and build climate resilience and reduce GHG emissions intensity (Annex 4)⁴⁵. The sub-component will also include the analysis of climate impacts, opportunities and constraints in selected value chains.

Sub-component 3.2: Strengthening Food Safety (US\$10 million). This sub-component aims to enhance Lebanon's capacity to ensure food safety and increase export opportunities for Lebanese food products. It will be implemented by the PCU under the technical leadership of MoA. It will finance: (a) technical assistance for (i) the harmonization of national food safety requirements with Codex Alimentarius and the requirements of target markets in case of export, (ii) upgrading the food safety policy and regulatory framework for implementation of the National Food Safety Law (2015), (iii) the establishment of the framework required for the implementation of good agricultural practices (GAP), good manufacturing practices (GMP), food safety management systems based on the Hazard Analysis and Critical Control Points (HACCP), (iv) the preparation of draft harmonizing national legislation to ensure its correspondence to provisions of the National Food Safety Law; (b) the digitization of agri-food related certificates and licenses, including the establishment of an SPS e-Certification system and integration into the ePHYTO system; (ii) establishment of the registration and administration system for food business operators including food exporters; (c) upgrade of the operational capacities of the public sector involved in food safety management including: (i) development of frameworks aimed to strengthen national food safety management; (ii) creation of frameworks required to ensure efficient laboratory testing of

food safety including testing for pesticide residues other contaminants and substances by investments in upgrading quality infrastructure and supporting maintenance and operation of existing laboratories⁴⁶ at MoA, LARI and Industrial Research Institute (IRI); and (iii) supporting and improving seeds multiplication capacity of LARI.

Additionally, this subcomponent will finance livestock vaccination campaigns and surveillance mechanisms for selected, priority pests and diseases and support awareness-raising campaigns about the potential spread of new pests and diseases due to climate change. The surveillance will include the management of quarantine pests and Fruit fly in Lebanon, and strengthening quarantine measures to detect, control and monitor the spread of *Xylella fastidiosa*. This activity will directly build climate resilience to increased frequency of pest infestation and diseases due to climate change, and indirectly lead to GHG emissions reduction, as farmers aim to comply with regulatory standards such as reduced fertilizer usage (see Annex 5 for more details).

Sub-component 3.3. Improving agri-food export promotion and marketing systems (US\$5 million): The sub-component aims to improve agri-food export performance and access to new markets. It would finance the following: (i) co-financing of trade missions and participation in international fairs identified by the private sector, and (ii) technical assistance for facilitating access to information including information on export processes, quality requirements, trial shipments, maritime, land, and air transportation options including upgrading MoET's LEBTRADE platform, and informing the network of Economic Attachés under the Ministry of Foreign Affairs in key export destinations to facilitate export opportunities. Specific emphasis would be placed on strengthening women's access to local and international markets. The sub-component would be implemented by the PCU under the technical leadership of MoET.

Component 4: Project and Knowledge Management (US\$6 million)

This component will support the coordination and management of the implementation of the project. It will finance the overall project management, including: (i) coordination among different stakeholders; (ii) monitoring and evaluation; (iii) project environmental and social standards; (iv) hiring of a gender specialist; (v) project fiduciary administration, internal controls, and audits; (vi) communication and information activities, and (vii) the establishment and maintenance of a grievance mechanism (GM) and a citizen's engagement mechanism. This component will also finance timely communication of results. This component will finance a third-party monitoring (TPM) mechanism. The project will also recruit a Service Provider (NGO) specialized in child labor prevention and response and who will be responsible for supporting the project in preventing, mitigating, monitoring, and responding to such risks during implementation (See Annex 5 on Child labor). It will finance the development of an action plan to combat child labor and a roadmap to improve social protection for farmers.

Component 5: CERC

This component will have zero funding allocation at the onset and will only be triggered in emergency circumstances; the project will support the preparation of a procedure manual governing the CERC operations.

1.4 PROJECT ALIGNMENT WITH OTHER ON-GOING INTERNATIONAL PROJECTS

The proposed project is aligned with the Country Partnership Framework FY17–FY22 (CPF Report Number 94768). The proposed operation would address both CPF's areas of focus. Specifically, it would contribute to Focus Area 1 ("Expand Access to and Quality of Service Delivery") by improving the services that mainly the MOA, but other institutions as well deliver to rural and lagging areas, both for poverty alleviation and growth; and by addressing environmental priorities, including the adoption of Climate-Smart Agricultural practices across priority value chains. The proposed operation would also contribute to Focus Area 2 ("Expand Economic Opportunities and

Increase Human Capital") by enhancing the production potential in agriculture and improving its quality both for internal and external markets. The proposed project is also aligned with the new CPF under preparation.

The proposed project aligns with the World Bank's Global Crisis Response Framework (GCRF) by maintaining a focus on longer-term priorities, which is critical to avoid setbacks on development objectives and to achieve the World Bank's Twin Goals of eliminating extreme poverty and promoting shared prosperity in Lebanon. The project is part of the GCRF and supports all four pillars. Under GCRF Pillar 1 (Responding to Food Insecurity), the project would support sustainable food and nutrition security, through safeguarding local production and strengthening food systems to make them more resilient to climatic risks and ongoing financial crises. The project would contribute to Pillar 2 (Protecting People and Preserving Jobs) by creating new job opportunities in rural areas, revising social protection for the agricultural sector and supporting displaced populations. In alignment with GCRF Pillar 3 (Strengthening Resilience), the project would support climate-smart and resilient agri-food value chains and community-based small-scale infrastructure.

In addition, the proposed project aligns with the World Bank's Fragile, Conflict, and Violence (FCV) strategy, and the World Bank's climate commitments, as set out by the Climate Change Action Plan and the MENA Climate Roadmap (FY21-25). Building resilience and preventing and mitigating FCV challenges are key to progress on the Sustainable Development Goals (SDGs) and promoting peace and prosperity. Focusing on building resilient and inclusive rural communities, the project contributes to Pillar 1 ("Preventing violent conflict and interpersonal violence"). The project also relates to Pillar 3 ("Helping countries transition out of fragility") by providing access to economic opportunities and access to basic services in rural and lagging areas, stabilizing the situation and renewing the social contract between citizens and the state. Finally, by focusing on the agricultural sector, it also contributes to Pillar 4 ("Mitigating the spillovers effects of FCV") as the sector employs a high share of the Syrian displaced population and rural poor. Through its focus on agriculture, agri-businesses and agri-tourism, this Project contributes directly to the first pillar of the WBG's MENA Climate Change Roadmap ("Food Systems, water security and resilient natural capital"). Leveraging climate-smart investments including renewable energy for energy and water access as well as the use of energy-efficient systems (e.g., for irrigation), contributes to the second pillar ("Energy transition and low-carbon mobility").

Furthermore, the GATE project shall complement the WB on-going project "Reduction of UOPs through Waste Management in a Circular Economy (P172770)" which will partially rehabilitate the solid waste infrastructure in Akkar and the South/ Nabatieh.

The project will also complement the WB Roads and Employment project (REP) - Component 4: Support to farmers engaged in crop and livestock production, which is providing financial support to smaller crop and animal producers in Lebanon.

1.5 PROJECT IMPLEMENTATION ARRANGEMENTS

The proposed implementation arrangements are designed to ensure efficient implementation and disburse in a reliable, transparent, and timely manner through specialized non-governmental and governmental institutions with the necessary technical expertise.

The overall Project implementation would be led by the CDR as PIA, through the Project Coordination Unit (PCU).

The Borrower is represented by the CDR which will implement the project through the PCU. CDR PCU would lead the overall project management and coordination, including by: (i) ensuring strategic oversight of overall project implementation; (ii) ensuring coordination and cooperation among all participating agencies and institutions, (iii) providing overall guidance during project implementation; and (v) endorsing financial, programmatic, and monitoring reports to be presented to the World Bank and other national stakeholders to ensure transparency and accountability. The project is to be implemented over a five-year period. CDR PCU will be responsible for the procurement, financial management, safeguards, and monitoring aspects of all components except component 1.2 which would be led by Kafalat through a subsidiary agreement. Components 2, 3 and 4 will be by CDR PCU, as well as sub-component 1.1.

The proposed implementation arrangements are shown in **Error! Reference source not found..**

Table 1-1 Project Implementation Arrangements

Component	Responsible Parties	Estimated Budget
Component 1 Climate Smart Investments in Agri-food Value Chains		USD 74 million
Sub-component 1.1: Development of Climate Smart value chains through improved aggregations	Technical leadership of MOA and support from the Directorate of Studies and Coordination and LARI. Fiduciary, procurement & safeguards CDR/PCU.	USD 20 million
Sub-component 1.2: Support to Agrifood and Agritourism SMEs and producer associations	Kafalaat	USD 54 million
Component 2. Climate-Smart Infrastructure and Services for Agri-food Development		USD 100 million
Sub-component 2.1. Planning, design and monitoring through a participatory approach	Green Plan in close coordination with respective municipalities & Union of municipalities, MOE, MOEW, LRA, concerned WEs.	31 million
Sub-component 2.2. Investments in public infrastructure to support agricultural productivity	CDR PCU	69 million
Component 3: Improving the Enabling Environment and Restoring Support Services for Agri-food Development	MOA, MOET, IDAL, MOE	USD 30 million
Sub-component 3.1 (US\$ 10 million): Improving access to climate-smart agriculture practices, data, and knowledge.	CDR PCU	USD 10 million
Subcomponent 3.2: Strengthening food safety (US\$ 7 million)	CDR PCU with the technical support of MOA & MOI.	USD 15 million

Component	Responsible Parties	Estimated Budget
Sub-component 3.3. Improving agri-food export promotion and marketing systems (US\$ 3 million)	CDR/ PCU under technical oversight of MOET	USD 5 million
Component 4: Project and Knowledge Management	CDR PCU	USD 8 million

A Project Steering Committee (PSC), chaired by both Ministers of Agriculture and Economy and Trade, will be established to oversee the implementation of Project activities and resolve issues of a policy nature that might arise during project execution. The PSC will be responsible for approving the project's annual budget and approving the recommended sub-projects for implementation and shall consult and coordinate between its members to overcome any obstacles that hinder the implementation of the project. In addition to its chairs, it will include the Ministry of Finance, Ministry of Industry, Ministry of Environment, Ministry of Energy and Water, and Ministry of Tourism.

1.6 GOALS AND SCOPE OF ESMF

This Environmental and Social Management Framework (ESMF) is a management tool whose format is in line with the requirements of the World Bank's Environmental and Social Framework (ESF), notably ESS1 "Assessment and Management of Environmental and Social Risks and Impacts" and the laws and regulations in Lebanon, to frame the management of potential environmental and social risks associated with the programme implementation.

The World Bank's (WB) ESF, which came into effect in October 2018, is applied to the proposed project, along with the general World Bank Group (WBG) Environmental, Health, and Safety (EHS) Guidelines (April 2007) and other industry sector related guidelines on:

- Annual crop production (March 2016);
- Waste management facilities (December 2007) and
- Water and sanitation (December 2007)

The ESMF, in line with ESS1, contains measures and plans to reduce, mitigate and/or offset adverse risks and impacts, provisions for estimating and budgeting the costs of such measures, and information on the agency or agencies responsible for addressing project risks and impacts, including its capacity to manage environmental and social risks and impacts. It includes adequate information on the area in which sub-projects are expected to be sited, including any potential environmental and social vulnerabilities of the area; and on the potential impacts that may occur and mitigation measures that might be expected to be used.

The ESMF also requires that an emergency preparedness and response process and Resource Efficiency and Pollution Prevention and Management measures be included in ESIA/ESMPs studies for sub-projects.

The ESMF clearly identifies any impacts, whether beneficial or adverse, to any Project Affected Parties (PAPs), other interested parties, and vulnerable groups, and outlines the respective mitigation measures accordingly. It outlines mitigation measures to mitigate SEA/SH risks.

The ESMF also ensures that proper, meaningful, and inclusive consultation is carried out with project beneficiaries and any identified vulnerable groups during project preparation and throughout project implementation with an adequately functioning Grievance Mechanism (GM) including separate referral pathways for complaints related to sexual exploitation and abuse/sexual harassment (SEA/SH). Additional/separate consultations may also be undertaken as part of the ESMF with identified vulnerable groups to help inform project design. The list of participants, with gender disaggregation, is documented as part of the ESMF.

To tackle all relevant ESS and World Bank requirements, the following instruments were prepared in addition to the ESMF report:

- Environmental, Social and Commitment Plan (ESCP);
- Labor-Management Procedures (LMP) prepared for the project;
- Resettlement Framework (RF);
- Grievance Mechanism; and
- Stakeholder Engagement Plan (SEP).

2. ENVIRONMENTAL AND SOCIAL BACKGROUND

This chapter presents a summary of the environmental and social baseline and settings related to the GATE project. The full environmental and Social Baseline document is presented as Annex H. This Chapter will present general background information about Lebanon.

2.1 ENVIRONMENTAL OVERVIEW

2.1.1 Geographical Location

Lebanon is a Middle Eastern country located in Western Asia and bordered by the Syrian Arab Republic from north and east, Palestinian territories from the south, and the Mediterranean Sea from the west. The country extends over an area of 10,452 square kilometers only. Despite the small area of Lebanon, the country has been a host of civilizations and cultures throughout history, similarly to many other Mediterranean countries.

2.1.2 Climate and Meteorology

Lebanon has a typical Mediterranean climate characterized by a long, hot, and dry summer, and cool, rainy winter. Temperatures gradually decrease during winter season and precipitations either accumulate in groundwater reservoirs through infiltration, or run-off. When springs and water courses are revived again, the spring season begins.

The topography of the country, with an elevation gain that extends only about 40 kilometers, affects the climatic patterns. Along the coast, summers are hot and humid, with little or no rain.

Temperatures may vary from one area to the other, depending on the time during the day and the altitude. Temperatures may reach above 38° C in the daytime and below 16° C at night. The proximity of the sea to the coastal area acts as a buffer effect on the climate, making the range of temperatures narrower than it is inland.

Precipitation records vary from one year to the other, with major rainfalls occurring during the month of December and January. The influence of the Mediterranean Sea is abated by the altitude and, although the precipitation is even higher than it is along the coast, the range of temperatures is wider, and the winters are more severe. The Beqaa Valley and the Anti-Lebanon Mountains witness less precipitation and humidity levels than other parts of the country, as the Mount Lebanon Mountains Chain creates a microclimate for the former areas.

The average annual precipitation in Lebanon is reported to be between 8.6 billion m³ and 9.7 billion m³, of which 1 billion m³ is due to snow (MoEW/UNDP, 2014; Fayad et al., 2017).

Figures referenced by Ziad Hajjar (1997) and recorded at 105 stations spread throughout the different governorates registered average yearly precipitation ranging from 700 mm in the Beqaa to 1,210 mm over Mount Lebanon (Table 2-1). Measurements were taken over several years ranging from 3 years in Terbol and Mayfouq stations to 51 years in the Tripoli station. The lowest level recorded for the country was 80 mm while the maximum observation reached 3,010 mm.

Table 2-1 Precipitation levels recorded by region

	NUMBER OF STATIONS	STATION ALTITUDE		PRECIPITATION (MM/YEAR)		
		LOW	HIGH	YEARLY AVERAGE	MIN	MAX
Beirut	4	15	34	891.75	393	1600
North	25	2	1925	1055	425	1890
Mount-Lebanon	36	45	1840	1210.16	421	3010
South	26	5	1150	933.27	342	2139
Beqaa	36	650	1510	705.42	80	2374
Lebanon	105	5	1840	787	80	3010

Source: Hajjar, 1997

The dominant wind direction is westerly from sea to land during the day, while it reverses at night (from land to sea).

Monthly and long term mean wind speed data at 10 m above ground level from the Météo Liban meteorological stations measurements showed wind velocities in the range of 1.6 to 9.1 m/s throughout the country (MOEW/UNDP, 2011).

2.1.3 Topography

The landscape of Lebanon is influenced by natural systems that extend outside the country. Thus, the Beqaa valley is part of the Great Rift system which stretches from Southern Turkey to Mozambique in Africa.

A major feature of Lebanese topography is the alternation of low lands and high land running in a parallel manner with a north-to-south orientation. There are four longitudinal strips between the Mediterranean Sea and Syria, which are from west to east as follows:

- A flat and narrow coastal strip (maritime plain) parallel to the Mediterranean Sea
- The Mount-Lebanon chain
- The Beqaa Valley (Central plateau)
- The Anti-Lebanon Mountains Chain

The steepness in Lebanese mountains highly affects the climate and weather in the Beqaa Valley, and at high altitudes.

2.1.4 Geology

The current geomorphological matrix of Lebanon is highly influenced by the historical geological events that occurred. The main tectonic events that happened are uplift, collision and changes in sea level, which have shaped the structural features and depositional environments of the country.

2.1.5 Hydrogeology

The hydro-stratigraphic units of the country are classified into three (3) main groups: aquifers, semi-aquifers and aquicludes.

A total of three (3) hydro-stratigraphic units are considered as karstic aquifers in Lebanon, two (2) of which are considered the main aquifers of the country (the Kesrouane aquifer J4 aquifer) and

the Sannine-Maameltein aquifer (C4-C5 aquifer). They are the two (2) water towers (Chateau-D'eau) of Lebanon and cover about 5590 km², which is about 54% of the country's surface area. The third aquifer is the Upper Eocene Formation (e2b). Given their highly karstified nature and extent that favor a high storage and recharge capacity, all three aquifers were considered to be karstic. The recharge of the aquifers in Lebanon mainly occurs through rainfall, snow and sometimes through losing streams. Infiltration in karstic aquifers is usually highest along high altitudes where precipitation increases. Groundwater tends to flow along preferential pathways enhanced by fractures and cavities in karstic limestone such as the e2b, C4-C5 and J4 aquifers making them highly vulnerable to groundwater pollution. Moreover, the presence of the Yammouneh Fault System and Roum Fault System along with other fault systems in Lebanon, helps in enhancing the fractures and cavities in karstic aquifers (MOEW/UNDP, 2014).

Besides aquifers, several semi-aquifers are present in Lebanon. The semi-aquifers usually have medium vulnerability to surface water pollution. This is because some semi-aquifers such as the Chouf Sandstone (C1) and Quaternary/Neogene (Q/n including mcg and mL) have the tendency to filter the percolating water. However, some semi-aquifers (mainly Mdairej C2b) are considered as highly karstified, especially in the presence of nearby faults (MOEW/UNDP, 2014).

Aquicludes are considered to have very low vulnerability to surface water pollution. This is mainly due to the lithostratigraphic characteristics of an aquiclude that limits the groundwater interaction between the overlying and underlying geological formations (MOEW/UNDP, 2014).

Springs and Wells

Springs

A total of about 5,050 springs are depicted in the 1:20,000 topographic maps of Lebanon. The major springs in Lebanon are fed by either the Sannine-Maameltein (C4-C5) Aquifer such as Afqa Spring, Keserouane Aquifer (J4) such as Ain El Delbi, or both, which is the case in the Wazzani Spring (MOEW/UNDP, 2014).

Wells

The UNDP 2014 study revealed the presence of 841 public wells in Lebanon. The survey showed that the operational public wells are exploiting the various aquifers at an estimated rate of about 248.7 million m³/year. The water of the wells is mainly used for domestic purposes. As for private licensed wells, the UNDP, 2014 study revealed the presence of 20,537 wells. More than 50% of the private licensed wells are located in Beirut and Mount Lebanon areas. The estimated number of unlicensed private wells is almost three (3) times higher than the number of licensed private wells (about 55,000 to 60,000 wells). The water extracted from private wells is being used for agricultural, domestic, industrial and commercial purposes (MOEW/UNDP, 2014).

It should be mentioned that the Water Law 192/2020 that amends the Water Code (Law 77/2018), article 37, urges citizens who have an unlicensed well to settle their violation and legitimize their status within a period of two years, the consequence of not doing so being the closing of the well. A committee or unit should be established at MoEW to support the practical execution of this article that includes, at least, a hydrogeologist, a legal counsel, a representative from the concerned WE and evaluates the applications put forth by the public, the well's effect on aquifers and other sources, and the WE's capacity to supply water (MOEW, 2022).

2.1.6 Surface Hydrology

More than thirteen (13) rivers cut through Lebanon. The main rivers with recognizable flow rates are the Litani River, Orontes (Assi) River, El Kebir River and Hasbani River. With the exception of the Litani River, which flows entirely within the country's borders, all other main rivers are Transboundary Rivers (MOEW/UNDP, 2014).

Besides the main rivers, several small-scale rivers (such as Damour River, El Bared River, Ibrahim River, Nahr el Kalb, etc.) are present in Lebanon. All those rivers tend to flow towards the west, eventually discharging into the Mediterranean Sea (MOEW/UNDP, 2014).

It is worth noting that inland wetlands are also present in Lebanon. The wetlands are located in Ammiq and Kfarzabad villages and are considered as Himas (protected areas) with high ecological value.

According to the Updated Water Sector Strategy 2020-2035, there are six operational dams/hill lakes in the country: Chabrouh Dam (Mount Lebanon), Ballout Lake (Mount Lebanon), Qaysamani Lake (Mount Lebanon), Kouachra Lake (Akkar), Yammouneh Lake (Baalbek-Hermel) and Qaraoun Dam (Beqaa) with a total dynamic capacity of around 314 MCM/year, mainly concentrated in Qaraoun and Chabrouh dams (MoEW, 2022).

According to the Green Plan report of 2016, since 2012, Green Plan has been implementing Hill lakes for farmer groups. The Hill lakes designated for groups of farmers are shown in Map 1 and either have been completed or are being studied.

There are 33 lakes in total, with a 1,465,000 m³ capacity. The following assumptions should be noted:

- All hill lakes that were supposed to be built in 2016 were finished on schedule (funds are available and reserved)
- Each lake is efficiently exploited to 70% of its capacity (the rest is lost by evaporation and other factors)
- As supplemental irrigation from the lake, each beneficiary from the common Hill lake will irrigate 2.5 dunums (0.25 ha).
- 3000 m³/ha is the projected average water need.

The total irrigated area every year will be 342 ha, and there will be 1,367 beneficiary farms overall.

2.1.7 Overview on irrigation

There are currently about 100,000 hectares of irrigated land in the country, according to an inventory of irrigation schemes (MOEW, 2022).

Irrigation efficiency is between 50 and 60% under the current irrigation conditions, taking network losses and irrigation practices into account. At the national level, a representative hectare's (ha) average annual irrigation water need is presently 8,400 m³/ha. Current irrigation water demand is illustrated in

Table 2-2.

Table 2-2 Present irrigation water demands

WE	Irrigated area (ha)	Commonly used rates in Lebanon (m³/ha/year)	Total needs Mm³/year
NLWE	23,600	7,500 (most of the area is coastal)	177
BMLWE	5,835	6,500 (most of the irrigated area is at high altitude)	38
BWE	66,115	9,000 (most of the irrigated area is inland/dry weather)	595
SLWE	4,210	7,500 (most of the area is coastal)	32
TOTAL	~100,000	8,435 (Average irrigation water requirement for one representative ha at the country level)	842

Source: MOEW, 2022

According to the Agricultural National Census (MoA, 2010), only 50% of the area that is irrigated is supplied by natural surface water, with the remaining 50% coming from either "expensive" subsurface water or hill lakes. Additionally, 35% of the irrigated areas are only partially irrigated, while 65% of the irrigated areas are permanently irrigated. It is therefore estimated that approximately 75% of the current irrigation water requirement, or about 630 Mm³, are currently supported by available water for irrigation and reflect the actual irrigation water consumption figure throughout the nation. Out of these 630 Mm³, 315 Mm³ are thought to be covered in surface water and the remaining by groundwater.

According to calculations of the water balance at the distribution system level, the dynamic seasonal variation of the population and the irrigable land assumptions, the total annual demand for the year 2020 is estimated to be 1,505 Mm³ (1,837 Mm³ for a network efficiency of 50%).

A rough estimate of the water demand for irrigation is 842 Mm³ per year, or around 55% of the overall water demand (MOEW, 2022).

Future irrigation development is dependent on:

- Executing new projects
- Securing new sources of water (storage structures & water wells).

At the national level, the development of the proposed projects would enable the irrigation of an additional 38,000 acres (

Table 2-3).

Table 2-3 Irrigable land in Lebanon

	Presently irrigated area (ha)	Proposed irrigation projects (ha)	Total (ha)
NLWE (18 schemes)		Noura el Tahta & Dar Baachtar dam 4 200 Hill lakes 730 4 930	33 530
BMLWE (15 schemes)	5 835	Hill lakes 540	6 375
BWE (36 schemes)		Aassi dams 6 000 Massa dam 1 600 Younine dam 1 200 8 800	74 915
SLWE	Qasmieh Ras El Ain 3 200 Saida Jezzine 430 Small local projects 580 4 210	Conveyor 800 13 250 Khardale dam 1 300 Choumaryeh dam 4 000 Ibl es Saki dam 3 800 Hill lakes 1 235 23 585	27 795
Total	104 760	37 855	142 615

Source: MOEW, 2022

2.1.8 Total Water Supply

The yearly renewable accessible water volumes are projected to be around 2,050 Mm³ from springs, 1,475 Mm³ from rivers, and 700 Mm³ from wells (public and private). Regarding supply, they vary depending on the types of sources and the extracted resources. It is important to note that groundwater is overexploited by about 300 Mm³ annually and that dams are typically topped off with surface water, primarily from rivers. These numbers are summarized in Table 2-4.

Table 2-4 Available and exploited water resources for 2020

Source	Available Resources (Mm ³ /year)	Exploited Resources (Mm ³ /year)
Rivers	1,475	14
Springs	2,050	594
Public and Private wells	700	990
Dams (Static)	-	314 (232)
Total Water Supply	4,225	1,912

Source: MOEW, 2022

2.1.9 Soil

Based on the soil map of Lebanon, there are twelve (12) soil types in Lebanon. Leptosols tend to cover the largest surface area out of the twelve soil types. Land Resources

Land usage in Lebanon can be classified into four main categories: agricultural areas, urban areas, natural areas, and mixed rural areas. Natural and agricultural areas, with the latter expanding

mostly over the Beqaa Valley, the South, Nabatiyeh, Akkar, Zgharta, Koura, and Minieh-Dannieh are the most prominent land use/cover in Lebanon. The main agricultural crops comprise fruit trees, vineyards, olives, bananas, citrus fruits, and field crops. Most of the agriculture in Lebanon is subject to fertilizers and pesticides (agrochemicals). It is generally known that many farmers do not abide by the correct dosage of fertilizers and pesticides usage, which find their way into the soil and into groundwater by leaching down due to irrigation, and into surface water through runoff. On the other hand, the highest concentrations of urban areas are found in Tripoli, Beirut and the coastal line of Mount Lebanon to the North of Beirut, Saida, Nabatiyeh, Tyre, as well as Zahle and Baalbek (CDR, 2005). Soil nutrition and plant protection are mismanaged with Lebanon showing some of the highest per hectare use of fertilizers (331 Kg/ha) and pesticides (7 Kg/ha) in the world (MOA, 2020).

2.1.10 Ecological Environment Status

2.1.10.1 Overview of the Ecological Context

Due to its location in the Mediterranean Basin, Lebanon has a rich biodiversity and is a biodiversity "hotspot". The country hosts around 9,116 known species distributed over its different geomorphologies. Given its diversity and significant ecological profile, 4 Ramsar sites, 15 Important Bird Areas (IBAs) (under Birdlife International), 24 Important Plant Areas (IPAs), and 20 Key Biodiversity Areas (KBAs) have been designated in Lebanon so far (Figure 2-1) (MOE/UNEP/GEF, 2016).

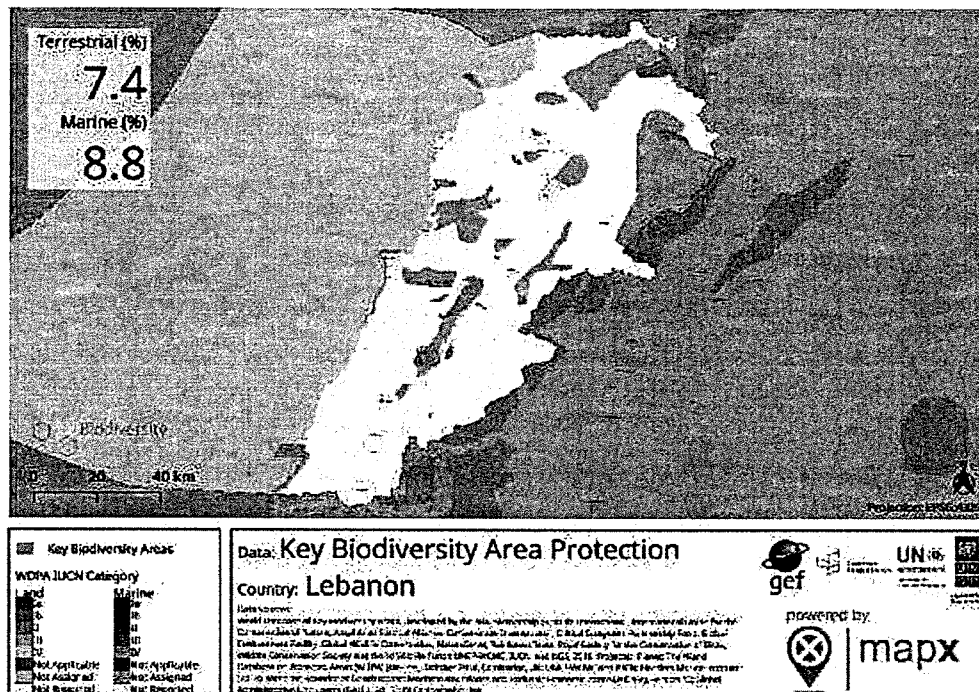


Figure 2-1 Key Biodiversity Areas (KBAs) in Lebanon

2.1.10.2 Overview of Protected areas

In addition, the Government of Lebanon has designated 17 sites across the country as nature reserves under the responsibility of MOE. Most recently was the designation of Mount Hermon

as a nature reserve in December 2020; and the Abbassiyeh coast, South Lebanon nature reserve in May 2020. Table 2-5 presents the nature reserves and Himas located in the targeted project areas. These are two categories of protected areas (PAs) as per the latest PAs Law, Law 130/2019. The other two categories are 1) natural sites or monuments, and 2) natural parks. These four categories were created in order to meet Lebanon's commitments arising from the relevant international conventions ratified by Lebanon (the United Nations Framework Convention on Biological Diversity - Rio de Janeiro 1992, the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, the Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, and the Euro-Asian/African Migratory Waterbird Agreement), and to make sure all categories of natural and cultural heritage are covered and protected.

Table 2-5 List of Nature Reserves and Himas in Targeted Project Areas (adapted from SOER, 2020)

Governorate	Nature reserve	Hima
Akkar	Karm Chbat	Qammouaa forests, Bazbina zone, Andket, Menjez, Rouaime, Al Maabour Al Abyad
North	Horsh Ehden and Tannourine Cedars Forest designated as IBA Hamat/Deir El Nouoriyeh Cliffs of Ras Shaqaa as Ramsar site	Anfeh
Baalbeck-El Hermel	Yammouneh	Hima of West Baalbek, Charbine and Fakiha
Bekaa	The communal lands of Niha, Jbeih, Mrousti, Khraibe, Maasser, Barouk, Bmohreh, Ain Dara, Ain Zhalta villages, Shouf Biosphere Reserve and Mount Hermon Nature Reserve.	Hima Anjar, Hima Kfar Zabad (Zahle district) Hima Kherbet Kanafar, Hima Ain Zebde, Hima Qaraoun, and Hima Aitanit.
South and Nabatieh	Tyre Coast Ebel Es Saqi area designated as an Important Bird Area (IBA) Wadi Al Houjeir, Kafra, Ramya, Beit Leef, Debel, Abbassiyeh Coast, Mount Hermon, Nmayrieh Abbassiyeh, Jabal el Rihan Biosphere reserve	Ebel El Saqui ; Arnoun, Qaytouli, Roum, Qoleileh and Mansouri

Moreover, Lebanon hosts a variety of unprotected natural important ecological areas such as grottos, mountain tops, natural bridges, forests, valleys, rivers, and holes. These areas are however threatened by anthropogenic and natural threats such as fragmentation, unsustainable exploitation of natural resources, pollution, and climate change.

Local communities in Lebanon have also implemented initiatives for community-based approaches for the protection and conservation of ecologically important sites across the country, such as those established in Anjar-Kfar Zabad (Beqaa) and Jdeidet el Fekha (Baalbek) (UNDP/MOE, 2019).

2.2 SOCIAL BASELINE

2.2.1 Socioeconomic Profile

2.2.1.1 Demography

With a population density of 669 inhabitants/km², Lebanon ranks in the top 20 list of the most densely populated countries (World Bank Group, 2021). With the start of the Syrian war, millions of Syrians fled their home country and settled in different regions in Lebanon, which lead to an increase in the total number of population (Table 2-6). The growth of the population led to an over-exploitation of natural resources, and resource depletion intensified to cater for a larger population. Mismanagement of natural resources has led to exacerbated environmental degradation, and pressure was added on an already resource-strapped management infrastructure.

Table 2-6 Population Number and Density (2011-2018) (Source: World Bank, 2021)

Year	Total Population (including Refugees and displaced)	Total Population Density in Lebanon (inhabitants/km ²)	World Population Average Density (inhabitants/km ²)
2018	6,848,925	669	60
2017	6,811,873	665	59
2016	6,711,121	656	58
2015	6,532,678	638	58
2014	6,262,410	612	57
2013	5,914,621	578	56
2012	5,538,634	541	56
2011	5,202,343	508	55

Roughly, 65% of the population in Lebanon is between 15 and 64 years old (Figure 2-2). 51.6% of the total population are women, and 48.4% are men (EU/CAS/ILO, 2019).

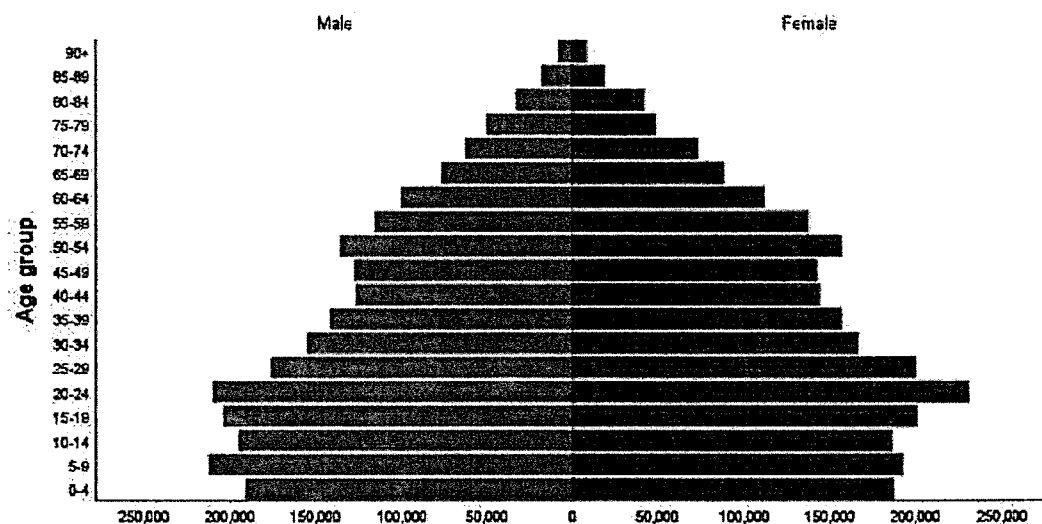


Figure 2-2 Age Pyramid of the Lebanese Residing Population (Source: EU/CAS/ILO, 2019)

The segregation of the Lebanese population located in the targeted project areas is shown in Table 2-7.

Table 2-7 Population Distribution by Governorate and Caza (Source: EU/CAS/ILO, 2019)

Governorate	Caza	Population per Caza	Percentage from Total Lebanese Population
Akkar	Akkar	324,000	6.7
Baalbek-Hermel	Baabek	214,600	4.4
	Hermel	30,500	0.6
Bekaa	Rachaya	33,800	0.7
	West Beqaa	86,400	1.8
	Zahle	177,400	3.7
Nabatieh	Bint Jbeil	96,200	2.0
	Hasbaya	28,700	0.6
	Marjaaoun	74,000	1.5
	Nabatieh	180,200	3.7
North Lebanon	Batroun	58,900	1.2

Governorate	Caza	Population per Caza	Percentage from Total Lebanese Population
	Bcharre	22,100	0.5
	Koura	84,600	1.7
	Minieh-Dannieh	140,800	2.9
	Tripoli	243,800	5.0
	Zgharta	87,700	1.8
South Lebanon	Jezzine	32,100	0.7
	Sidon	296,600	6.1
	Tyre	255,700	5.3
TOTAL		4,842,500	50.9

Note: Excludes people living in non-residential units, such as army barracks, refugee camps and adjacent gatherings, and informal settlements.

2.2.1.2 *Persons with Disability*

Based on the guidelines of the Washington Group on Disability Statistics, about 4 per cent of Lebanese residents suffer from a disability, or have difficulty functioning, which restricts their participation because of difficulties in one or more of the following six core functional domains: seeing; hearing; walking or climbing steps; remembering or concentrating; self-care; and communicating (EU/CAS/ILO, 2019). Table 2-8 provides details about people with disabilities based on their gender.

Table 2-8 Disability status of the Lebanese population based on their gender (Source: EU/CAS/ILO, 2019)

Disability status	Percentages		
	Women	Men	Total
Person with a disability	4.1	3.9	4.0
Person without a disability	94.4	94.5	94.5
Not applicable (infants and newborns)	1.4	1.5	1.5
Total	100.0	100.0	100.0

The total percentage (4%) of Lebanese residents with a disability can be divided into two groups:

- Persons with only one disability (2.5%); and
- Persons with more than one disability (1.5%).

Several types of disabilities are reported in Lebanon, as shown in Figure 2-3.

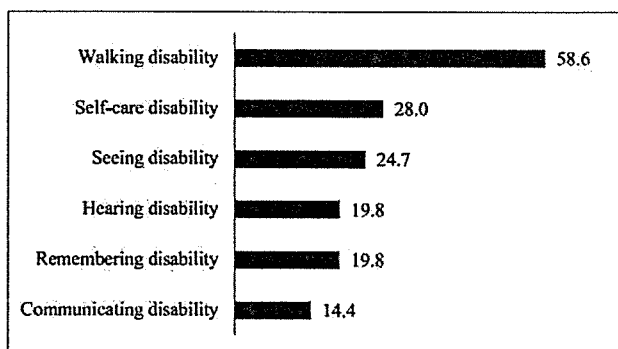


Figure 2-3 Percentage of Each Type of Disability in Lebanon (Source: CAS/EU/ILO, 2019)

Table 2-9 presents the percentage of persons with disabilities in the targeted project areas.

Table 2-9 Persons with Disabilities in the targeted project areas (Source: CAS/EU/ILO, 2019)

Governorate	Persons with Disability (%)
Akkar	6.1%
North	6%
Baalbek-El Hermel	4.9%
Bekaa	4.7%
South	4.4%
Nabatieh	3.7%

2.2.1.3 Female-headed Households

Lebanese heads of households represent 85 per cent, while non-Lebanese heads of households made up the remaining 15 per cent before the economic crisis. Around 18 per cent of households were headed by women and 82 per cent by men (EU/CAS/ILO, 2019). Figure 2-4 presents the percentage of heads of households by age group and sex.

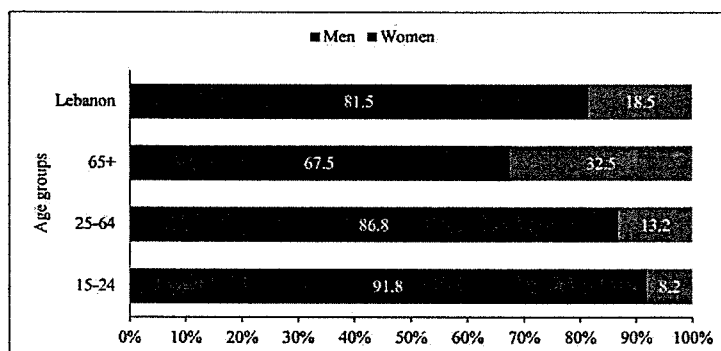


Figure 2-4 Distribution of Heads of household by age group and sex

(Source: CAS/EU/ILO, 2019)

While the information relating to elderly is limited, it is worth noting that single-person households make up to 10.2 per cent of total households; half of them older adults, mostly elderly women who

are generally widows (CAS/EU/ILO, 2019). People aged 65 years-old and above make up to 12.5% of the total Lebanese population, and half of those reported with a disability in Lebanon. Roughly one third of elderly people do not benefit from any health insurance coverage.

Table 2-10 presents the percentage of elderly in the project targeted areas.

Table 2-10 Percentage of Elderly in targeted areas)

Governorate	Percentage of Elderly
Akkar	5.4%
North	5.8%
Baalbeck el Hermel	8.8%
Bekaa	N.A.
South and Nabatieh	13.5%

(Source: CAS/EU/ILO, 2019)

2.2.1.4 Sexual Exploitation and Abuse / Sexual Harassment

69% of gender-based violence (GBV) incidents reported through the GBV information management system (GBVIMS) in 2020 were incidents of domestic violence. The GBVIMS is an inter-agency partnership between the United Nations Population Fund (UNFPA), the International Rescue Committee (IRC), and the United Nations High Commissioner for Refugees (UNHCR), in consultation with the Inter-Agency Standing Committee Sub-Working Group on Gender and Humanitarian Action and the Gender-Based Violence Area of Responsibility Working Group of the Protection Cluster. The system enables those providing services to GBV survivors to effectively and safely collect, store, analyze and share data related to the reported incidents of GBV.

Numbers were reportedly increasing due to the cumulative effect of both lockdown and economic collapse (UNFPA, 2020).

Women and girls with intellectual disabilities are particularly vulnerable to sexual violence and are often prevented from accessing a range of services and face un-adapted facilities, poverty, inadequate behavior of service providers. Elderly women are the most at risk due to their suffering from disparities that they experience throughout their lifetime (UNFPA, 2020).

In 2021, UNICEF reported that one in two children in Lebanon is at serious risk of physical, emotional, or sexual violence, as families struggle to cope in the country's deepening economic crisis.

2.2.1.5 Poverty

Due to the financial crisis facing the country, the poverty rate increased exponentially with time starting in 2019. According to a study prepared by the UN-ESCWA titled Poverty in Lebanon: Solidarity is vital to address the impact of multiple overlapping shocks (UN, 2020), the portion of Lebanese households living in multidimensional poverty was estimated at 82% of the total population, out of which 40% live in extreme multidimensional poverty. Only 18% of the population is not poor. Roughly 1.8 million children (more than 80 per cent) are now experiencing multidimensional poverty – up from around 900,000 in 2019 (UNICEF, 2021).

The financial crisis is disproportionately affecting lagging and under-served rural areas. According to the Lebanon Multidimensional Poverty Index (MPI) for Lebanon (CAS & World Bank, 2019), the

governorates of Akkar (69.6%) and Bekaa (67.0%) have the highest levels of MPI and incidence of poverty. Out of a total population of 1.1 million people in Northern Lebanon, 708,000 live under the poverty line. Vulnerable Lebanese households face challenges accessing food, healthcare, education, and other basic services. The unemployment rate reached 30% in 2022 – up from 11% in 2019 (ACAPS, 2022) and as a result demand for employment opportunities across the country is high. The highest concentration of displaced populations is found in the Bekaa region (UNHCR, 2022). This has put strains on already fragile services in the Bekaa and increased the vulnerability of host communities, as they compete over employment, accommodation, access to public services, and infrastructure.

2.2.1.6 Displaced Populations

Lebanon, a small country of 5.2 million people (July 2021 estimate), hosts the highest per capita concentration of refugees/displaced populations in the world.

Roughly 1.5 million Syrians had fled their country since 2011 and resettled in Lebanon. Only 879,529 displaced Syrian populations are registered as of 2020. The highest concentration of displaced Syrian populations is found in the Bekaa region (UNHCR, 2022).

The Bekaa valley and Akkar have been most heavily affected by the Syrian crisis. In fact, the agri-food sector is one of the three sectors where Syrian displaced populations are legally allowed to work, and agriculture is the second-highest employer of displaced Syrians. Child labor among Syrian displaced populations is the highest in agriculture in rural areas; a 2019 UNICEF survey in the Bekaa Valley, where migrants are concentrated, showed that around 75 percent of children from displaced populations engaged in labor worked in agriculture.

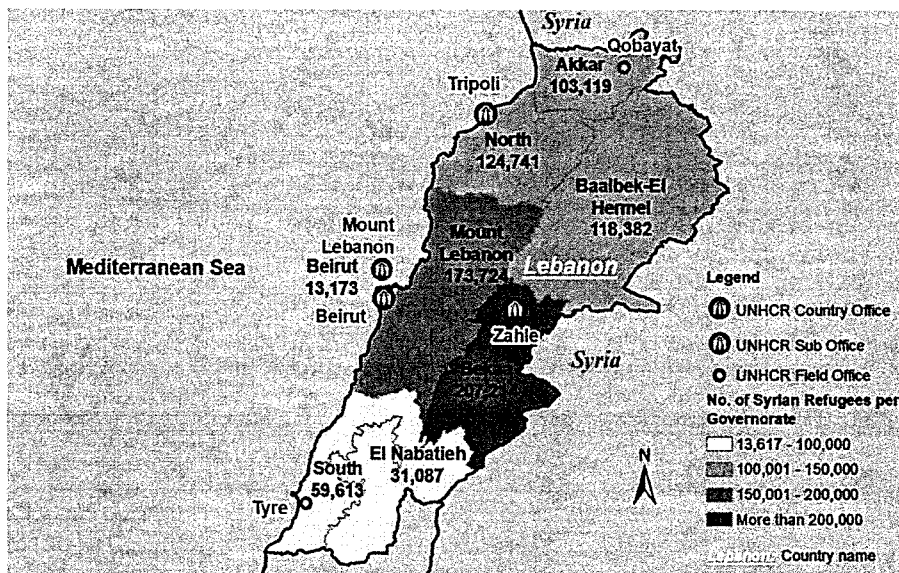


Figure 2-5 Number of Syrian refugees per Governorate

Source: UNHCR, 2022

2.2.1.7 Basic Services and Utilities

2.2.1.7.1 Access to Solid Waste Management Services

Municipalities are responsible for collecting and transporting solid waste from collection points to designated facilities in a manner that does not harm the environment, in accordance with the standards and conditions set by and subject to approval of MoE, as per Decree No. 118 of 1977 and Law 80 of 2018.

Small-scale facilities in remote areas of the North, South and Bekaa regions provide those areas with Solid Waste Management (SWM) services. These facilities are managed by the Office of the Minister of State for administrative Reform (OM SAR) in coordination with local authorities.

Community-run systems in some regions consist of basic sorting, composting, and final disposal of MSW.

Approximately 2 million tons/year of Municipal Solid Waste (MSW) are generated in Lebanon. Daily MSW generation is estimated at 1.05 kg/capita/day (CDR, 2019). MSW is mainly composed of 51% of organic waste, while the remaining is comprised of recyclables like paper and cardboard, plastic, glass, textiles, metals; demolition/construction waste and others (CDR, 2019). Most of this waste is collected and disposed of by landfilling/ dumping, while some of the waste is being treated at Solid Waste Management Facilities (SWMF) which are distributed all over the country.

Many of the remaining rural areas that are unserved by SWM facilities collect municipal solid waste and dispose of it by open dumping and burning.

Dumpsites and open dumping and burning are frequent in Lebanon. Two types of dumpsites are identified in Lebanon: 1) MSW dumpsites and 2) Construction and Demolition Waste (CDW) dumpsites.

Table 2-11 presents the number of operational MSW dumpsites by governorate according to the Updated Masterplan for Closure and Rehabilitation of Uncontrolled Dumpsites (UNDP, 2017).

Table 2-11 Operational MSW Dumpsites by Governorate

Governorate	Operational Dumpsites
Akkar	19
North	19
Baalbeck	39
Hermel	3
Bekaa	54
South and Nabatieh	127

Source: UNDP, 2017

2.2.1.7.2 Access to Water Supply

The water sector in Lebanon is facing detrimental challenges, hindering the ability of the government to supply adequate and reliable water services while conserving Lebanon's water resources. Although the national coverage of water networks is around 80%, the quality of the supplied public water is questionable due to the lack of protection of water resources, insufficient

water treatment at the supply level, deteriorated distribution networks, and the absence of continuous monitoring. Untreated wastewater, which accounts for around 70% of the total generated wastewater, is being directly discharged into the environment, thus polluting the groundwater and surface water resources that supply a significant portion of Lebanon's potable water. The pollution of water resources, in addition to the poorly managed water supply networks, have impacted the quality of water at the household level. An estimated 65% of the population does not have access to safely managed drinking water services (MoEW, 2022).

Lebanon's available renewable water resources have dropped below the 1,000 m³ /capita/year threshold that defines water stress: in 2010, the MoEW estimated that the total renewable resources per capita per year were 926 m³ and predicted that it will continue to fall reaching 839 m³ by 2015 (MoEW, 2012). Since then, population growth, climate change, and the influx of displaced populations have further strained the available resources and as a result, the total renewable resources per capita have reached 700 m³ /capita/year (IFI, 2014). In addition to the challenges associated with ensuring that the water sources are effectively managed to meet the demands of the different sectors, pollution levels in many of these freshwater systems have made them either unable to meet their designated uses, or requiring expensive treatment prior to use (SOER, 2020).

With the ongoing multiple crises since 2019, water supply and access to water has become challenging to most of the Lebanese population. In addition to the decrease in available water resources per capita, the infrastructure of the sector has become very vulnerable lately, which has increased the risk of water shortage in many regions of the country, notably Baalbek-Hermel Governorate and West Beqaa district (UNICEF, 2021), as shown in Figure 2-6 below.

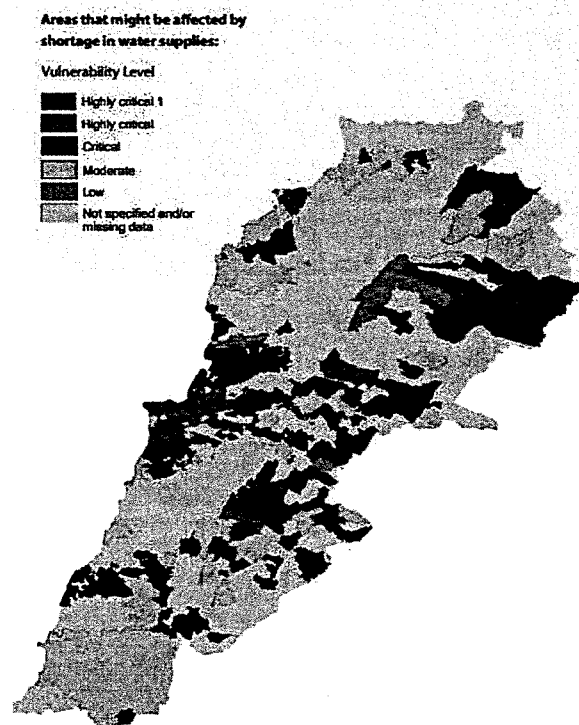


Figure 2-6 Vulnerability Level to water shortage in Lebanon

Source: UNICEF, 2021

2.2.1.7.3 Access to Sanitation

In 2015, 81% of the total Lebanese population had access to improved sanitation facilities, and 19% relied on unimproved facilities other than open defecation and shared facilities (WHO/UNICEF JMP, 2015). As of 2017, residents that have access to safe sanitation facilities were reported at 98% of the total population (WHO/UNICEF JMP, 2019). However, it must be noted that although access to proper sanitation is high, wastewater treatment remains very low and surface water contamination remains high.

2.2.1.8 Economy, Livelihood and Employment

The on-going financial crisis in Lebanon has led to an increase in poverty and highly impacted the country's economy. By the end of 2021, Lebanon's real GDP index had contracted by 34.6 percent since 2018, comparable to Lebanon's real GDP index in 2007. In July 2022, the World Bank downgraded Lebanon's economic standing to a low-middle income country (WB, 2022).

The adverse shocks have driven an overwhelming share of the population into poverty and vulnerability to food insecurity. Food price inflation was further exacerbated by the removal of subsidies, particularly impacting the poor and vulnerable.

At the governorate level, the unemployment rate has increased in all governorates without exception. The largest increase in unemployment was observed in Baalbek-Hermel (40.7 percent), followed by South Lebanon (36.5 percent) in 2022. Employment in the informal sector (in terms of the characteristics of the establishment in which the person works) has increased by 13.1 percentage points, from 35.2 percent in 2018-2019 to 48.3 percent in January 2022 (ILO, 2022). The sector with the highest share of informal employment is Agriculture, Fishing and Forestry with 98.1 percent (ILO, 2022).

The gender gap in labor force participation (LFP) stands at 44 percent, with female LFP at 22.2 percent versus a male LFP at 66.2 percent.

2.2.2 Overview of the Agriculture Sector

The agro-food industry is the largest industrial sector in Lebanon, accounting for 18% of all industrial companies," claims IDAL, since it contributes around 4.7% of Lebanon's GDP" (IDAL, 2017). This makes the Bekaa governorate's agricultural, agro-pastoral, and tourism industries vital. Wineries-focused tourism and farming activities connected to wine production are two examples of rural tourist activities in West Bekaa, Rachaya, and Zahle.

Lebanon offers a range of agroecological zones well suited to the production of diverse agricultural products and with potential for exports. Five distinct agro-climatic zones are present in the coastal strip, low and middle altitudes of Mount Lebanon, West, Central and North Bekaa. The most fertile and productive lands are located in the Bekaa Valley, the Plain of Akkar and the thin strip of coastal plains. Crop production represents about 60 percent of agricultural output, while livestock production accounts for 40 percent and contributes a critical year-round source of livelihoods. Mountain agriculture is characterized by small holdings sustaining poor farmers and many households for whom agriculture is a secondary source of income. Agriculture in the coastal plains is dominated by permanent crops (e.g., citrus and banana), while the plains of Akkar and Bekaa Valley are dominated by cash crops (potatoes and vegetables). Lebanon's domestic agribusiness

market has potential for steady growth. Lebanon has a revealed comparative advantage for vegetable, fruit, nuts and other high-value agriculture products with fruit and vegetable production also representing an important segment of Lebanon's agribusiness sector. It also has a significant comparative advantage for exporting high-value agri-food to premium markets thanks to agri-climatic conditions, favorable trade agreements with Europe and the GCC and the recent defacto devaluation of the currency. According to the International Trade Centre, the untapped agricultural and agri-food export potential exceeds US\$450 million, with 65 percent coming from fruits, food products and vegetables. Expanding agri-food exports can increase foreign currency inflows, which are much needed given the current context. Increasing local production offers opportunities for import substitution. This can be achieved by supporting small producers and SMEs to comply with stringent food safety, quality, traceability, labeling and environmental sustainability requirements imposed by high-value export markets.

The primary agricultural production's contribution to GDP increased from 3.2 percent (USD 1.77 billion) in 2018 to 8.9 percent (USD 2.32 billion) in 2020. It is estimated that approximately 20 percent of Lebanese households generate primary or secondary income from the broader agri-food sector, with agribusiness as the largest industrial sub-sector of the economy (World Bank, 2021). The agri-food sector accounted for over 17 percent of total exports in 2020 (or USD 0.7 billion on average between 2014 and 2020 (International Trade Center, 2020). Lebanon's top five categories of agricultural and food exports by value were preparations of vegetables, fruit, or nuts; edible fruits and nuts; beverages, spirits, and vinegar; miscellaneous edible preparations; and animal or vegetable fats and oils. Although domestic agri-food production satisfies only 20 percent of local demand, it contributes the largest share to livelihood generation for poor segments of society and is concentrated in the poorest areas, the Bekaa valley and Akkar in particular, which have been most heavily affected by the Syrian crisis. In fact, the agri-food sector is one of the three sectors (other than construction and cleaning) where Syrian displaced populations are legally allowed to work, and agriculture is the second-highest employer of displaced Syrians. The multiple challenges facing the sector are putting its resilience and sustainability at risk and posing threats to food security and rural livelihoods.

Increasing global fertilizer prices and energy costs compounded by the foreign exchange crisis are undermining the viability of agriculture and threaten to diminish the contribution of local production to food security. According to a survey of agricultural households carried out in July and August 2022 by FAO, over 80 percent of crop producers faced production difficulties, with the most frequent being access to fertilizers (72 percent) and pesticides (59 percent).

Lebanese farmers and agri-food SMEs lack the necessary access to finance to invest in sustainable, climate smart and modern modes of production. Small and medium-sized farmers relying only on farming income have been particularly affected by the high input prices, reducing input application, or substituting with lower quality, leading to lower marketable production and incomes (MoA, 2020).

2.2.3 Child Labor

Children in Lebanon are subjected to the worst forms of child labor, including use in the production and trafficking of drugs, sometimes as a result of human trafficking, and in forced labor in agriculture (US Department of Labour, 2022). In Lebanon, food insecurity and child labour have increased in 2020 and both are correlated in vulnerable communities. In addition, 60% of child labor

is in agriculture. In the Bekaa region in 2019, 30% of working children reported injuries at work and 42% were insulted at work. Children have also reported physical abuse as 24% of boys and 16% of girls have been threatened (IRC & LPC, 2021).

The NGOs that are working on preventing child labor in Lebanon are Himaya, Lebanese Union of Child Welfare (LUCW), Lebanese Organization of studies and Training (LOST) in addition to the international NGO Humanium.

ILO, Lebanon's Ministry of Labour and Beyond Association launched in 2016 a joint initiative to establish and support a series of community centers to provide a range of services aimed at combatting child labor across the country. The centers that are currently operational are in the Bekaa, Nabatieh and Ouzai (Beirut suburbs) (ILO, no date).

There is no recent data on child labor in Lebanon with reliable information. A large number of children work in the following sectors: auto repair (e.g. Mechanical work, car painting), construction and metalworking including aluminum and forged iron, and sanitary installations. In addition, there are many children working in the agricultural sector in Akkar, Hermel and Baalbek districts.

As for the Syrian displaced populations, a survey conducted in 2019 by the AUB for the Bekaa region showed that most working children (≥ 4 to ≤ 18 years) in this study worked in the agricultural sector (about 75%). Many of these children were subject to harsh working conditions. Workplace injuries were quite common (30%). When children experienced an accident or injury at work, they or their families usually had to pay for the cost of treatment (86%) (AUB, 2019).

Only 18.3% of working children attended some form of schooling at the time of the study. Working children in compulsory school age (≥ 6 to ≤ 15 years) constituted 72.6% (3,178 children) of the total population of working children. Half of the working children did not go to school because they had to work as a consequence of dire familial financial circumstances (AUB, 2019).

2.2.4 Overview of the National Social Protection Strategy

In Lebanon, the social protection system is scattered and non-unified. Several schemes exist, including social insurance programmes for public servants and for military and private sector workers, syndicate pension plans, and small social assistance programmes.

Vulnerable people including those with disabilities, elderly, women, and children rely on unsustainable sources of income including informal employment and family support. The country lacks a coherent national social protection system, which has led so far to fragmentation and duplication of assistance while coverage and provision of protection to the poorest and most vulnerable remain inadequate.

The GOL adopted two national plans in an attempt to alleviate poverty in the country: National Social Action Plan Toward Strengthening Social Safety Nets and Access to Basic Social Services (2007), and National Social Development Strategy (NSDSL) in 2010 (Bastagli et al., 2019). A decade later, the GOL launched the Roads and Employment Project (REP) to rehabilitate roads in different regions of the country and create employment opportunities. The REP followed the population growth and the increase in unemployment rates in the country. In 2021, an amount of US\$ 10 million was reallocated to create a new component to support small farmers in rural

areas. In addition, GOL developed and launched in 2011 the Emergency National Poverty Targeting Program (NPTP) Project to alleviate poverty rates in the country. Lately, MOSA launched the Daem Network for Social Protection. The DAEM platform has initiated the development of an integrated National Social Registry that will enable Lebanon to address future shocks rapidly, transparently, and equitably. The network comprises two programmes: safety programme, and an e-finance card programme (MOSA, 2022). Managed by IMPACT under the supervision of the Central Inspection, the platform has allowed the registration and screening of household applications along the highest standards of transparency and efficiency.

Despite the consecutive attempts of GOL represented by MOSA in those programmes, as of September 2021, the UN estimates that roughly 75% of the total population lives in poverty (UN, 2021).

The lack of social security basics and the cumulative effects of the consecutive crises have drowned most of the Lebanese population into poverty, leading them to have limited to no access to proper services, including medical, educational, and transportation among others. The following sections provide an overview of the main programs aiming at alleviating poverty.

2.2.4.1 National Poverty Targeting Program

The National Poverty Targeting Program (NPTP) in Lebanon, launched in 2011, is managed by the Ministry of Social Affairs (MOSA) and the Presidency of the Council of Ministers (PCM). The rationale behind this program is to "provide social assistance to the poorest and most vulnerable Lebanese households based on transparent criteria that assess each household's eligibility to receive assistance, given available public resources" in Lebanon and improve the lives of 237,958 beneficiaries, or 42,935 households (PCM, no date).

NPTP is supported and funded by international organizations including the World Bank (WB), The World Food Programme of the United Nations (WFP), the UNHCR and the German Cooperation.

Based on the "Implementation Completion Result" report issued by the World Bank in 2021, while it was not possible to measure the Project's impact on poverty rates, it is likely to have had a significant impact on both monetary and non-monetary poverty. The certification of NPTP beneficiaries is expected to reduce monetary poverty of 261,000 individuals from extremely poor households that had access to health and school subsidies, while the e-card Food Vouchers improved food security of over 105,500 individuals. It is also expected to have decreased non-monetary poverty by improving access of poor and vulnerable people to education and health services, diversified dietary intake, and reduced negative coping strategies. The NPTP platform was used to target over 225,000 beneficiaries for restoring their access to essential healthcare services at MOHP Primary Health Care Clinics, and for the provision of UNICEF's ATM cash cards to support children through its winterization program during 2016 (US\$3 million) and 2020 (US\$3.5 million). These benefits helped to alleviate monetary poverty and free up household resources for other essentials.

2.2.4.2 Roads and Employment Project

As part of the efforts to create job opportunities for residents in Lebanon as well as Syrian displaced populations, and to improve the economic situation of households, the Roads and Employment Project (REP) was launched in 2017 with the financial support of a loan accredited from the WB to the GOL. The components of the project were amended in 2021, following the economic collapse and the devaluation of the Lebanese Pound, and the COVID-19 pandemic.

Both crises severely affected the living conditions of the Lebanese population, bringing roughly 75% of the total population to live below the poverty line, with 36% of them living in extreme poverty.

An additional component (component 4- Support to farmers engaged in crop and livestock production) was added to the project based on the request of MOA. The project would provide support to approximately 26,700 smaller crop and animal producers in Lebanon (whereby at least 10% of the beneficiaries shall be women) by providing them with vouchers for the procurement of essential inputs to enable continued agricultural production following COVID-19-related planting and harvesting delays. Two types of paper-based vouchers would be offered: one for crop production inputs, and another for animal production inputs, mostly feed. On the other hand, the vouchers would not finance the purchase of pesticides. The component would also support the annual animal vaccination program of the Directorate of Animal Resources under the MOA by procuring vaccines for animal diseases.

2.2.4.3 Emergency Social Safety Network (ESSN)

The ESSN also known as AMAN is a US\$246 million 3-year project launched in March 2022, that provided cash transfers and access to social services to extremely poor and vulnerable Lebanese populations affected by the economic and COVID-19 crises. The ESSN's purpose is to arrest the increase in extreme poverty and to preserve the human capital of 13 – 18 year-old children enrolled in public schools. It also aims to scale-up and enhance the National Poverty Targeting Program (NPTP): Lebanon's main poverty-targeting social assistance program launched in 2011 with financial and technical assistance from the World Bank.

2.2.5 Overview of Cultural Heritage Areas

Lebanon is a host country to many archaeological and cultural sites. Five properties are inscribed on the World Heritage List of UNESCO: Anjar, Baalbek, Byblos, Ouadi Qadisha and the Forest of the Cedars of God, and Tyre (UNESCO, no date).

Many other sites are on the tentative list of UNESCO. These sites are:

- The historical center of Batroun (Le Centre Historique de la Ville de Batroun);
- Echmoun Temple;
- Set of Historical Monuments and Natural Sites of the Village of Menjez;
- Sacred Mount Hermon and its associated cultural monuments;
- Nahr el-Kalb Archaeological Site;
- Saida Historical Center;
- The castles of Mount Amel: Qalaat Al Chakif (Beaufort Castle), Qalaat Tibnin (Toron Castle), Qalaat Chakra (Dubieh Castle), Qalaat Deir Kifa (Maron Castle), Burj Al Naoqoura (Naqoura Tower);
- The Ancient City of Tripoli;
- Ras al-Qalaat promontory / Ras Al Natour promontory / Ras el-Mlelih Promontory; and
- The Rachid Karamieh International Fair in Tripoli-Lebanon;

Laws, Regulations, And Institutional Framework

2.3 RELEVANT NATIONAL ENVIRONMENTAL LAWS, REGULATIONS AND POLICIES

2.3.1 Overview of the Legal Framework in Lebanon

The Lebanese Constitution represents the strongest legislative text in Lebanon and when in contradiction with the Constitution, a proposed legislation(s) cannot be issued. International treaties/agreements ratified by Lebanon have the second priority in the Lebanese legislative framework. The legal structure in Lebanon is shown in Figure 2-7.

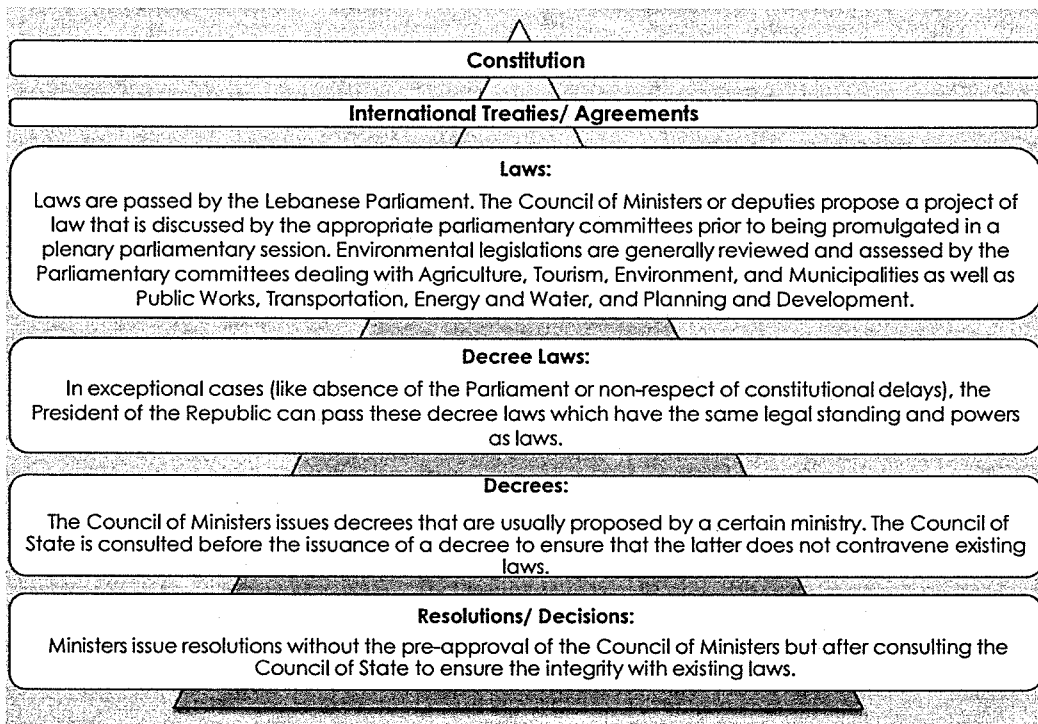


Figure 2-7 Hierarchy of Legislation in Lebanon

2.3.2 Relevant National Legislation for Environmental Protection

This section describes the most relevant and pertinent national legislative texts related to the Environment and to the project. Table 2-12 and

Table 2-13 present an overview of the main environmental and agricultural legislations found in Lebanon.

Table 2-12 Summary of Relevant Environmental Legislations

Year	Law/Decree	Reference Entity	Relevant Provisions
2022	Decision 16/1	MoE	The decision specifies the Environmental Limit Values of air pollutants and came into force as of February 10, 2023 over two phases. The first phase ends in December 2026, and the second phase begins as of January 2027. The decision sets standards and requirements covering the following topics: - List of air pollutants that have to be measured and monitored based on the nature and type of the facility - Environmental Limit Values of air pollutants - Environmental Limit Values of air pollutants emitted from particular sectors and industries;
2020	Decree 6212	CoM	Approval of the national strategy for managing ambient air quality Specifying the measures and principles of application of the section of Decree 5606/ 2019 relating to hazardous waste generators and their duties (procedure for declaring hazardous waste generation/ suspension of generation, withdrawal of generated hazardous waste, and periodic reporting. - Article 1: Hazardous waste generation reporting mechanism - Article 2: Electronic database for hazardous waste generators - Article 3: Permanent cessation of hazardous waste generation from facilities - Article 4: Recall of hazardous waste from allocated storage facilities and/or treatment facility. Article 5: Reporting to the Ministry of Environment
2019	Law 130	Parliament	Protected areas law: - Chapter 1: Classification of protected areas in Lebanon - Chapter 2: Nature Reserves located on a public property - Chapter 3: Nature Reserves located on a private property - Chapter 4: Common provisions for Nature Reserves located on public properties and/or private properties
2019	Circular 7/1	MoE	Regulates the construction and operation of wastewater treatment plants for private establishments.
2019	Decree 5605	CoM	The decree specifies the principles for sorting domestic solid waste at the source into three categories: organic waste, recyclables, and inert waste. Section 2: - Article3: Sources of Domestic Solid Waste - Article 4: Composition of Domestic Solid Waste - Article 5: Responsibility for waste sorting - Article 6: Separation of waste according to the suitable color - Article 8: Sorting mechanism and its stages
2019	Decree 5606	CoM	The decree specifies the principles of management (sorting, storage, transport, and disposal) of hazardous waste.

LEBANON GREEN AGRI- FOOD TRANSFORMATION FOR ECONOMIC RECOVERY (GATE)

ESMF

Year	Law/Decree	Reference Entity	Relevant Provisions
2019	Letter 5515/B	MoE	Letter addressed from the Ministry of Environment to the Ministry of Interior and Municipalities to monitor the compliance with the environmental guidelines and the proper operation and utilization of electric generators. The letter includes the technical specifications for the operation and monitoring of electrical generators as follows: - Air Emissions management: - Equip generators with catalytic converters and cyclones - Regular maintenance of the generators - Regular monitoring of air emissions (NO_x, SO_x, and CO) in case the generator's capacity is > 250 kVA - Equip generators with an adequate stack height in accordance with the height of the nearest residential building within a 50 m radius - Air emissions quality compliance with MoE Decision 8/1 - Wastewater management: - Avoid spillage or leakages of oil, fuel, or grease - Proper storage and containment of used oil resulting from generator's maintenance - Placement of oil/fuel tanks over metal drip trays to contain any leakage or spillage - Solid waste management: - Solid waste collection (oil containers) and delivery to relevant licensed parties by MoE to be reused or recycled - Empty particulate matter from cyclones in sealed bags to be disposed of using an environmentally compliant method - Noise management: - Ensure that generators are fitted with noise mufflers and soundproof casing compliant with MoE Decision 52/1 of 1996 - Estimate the noise level (through the manufacturing company or any company specialized in conduction noise monitoring) of the generator equipped with the mufflers and proper isolation - Equip generators with a rubber base to decrease vibration impact - Ensure proper isolation of the technical room housing the generator - General Environmental Guidelines - Ensure good housekeeping measures are implemented near the generators - Install and provide automatic and manual fire extinguishers near the generators - Plant trees nearby the generator's location Additionally, the letter's appendices include standards relevant to air emissions and noise levels based on MoE Decisions 52/1 and 8/1.
2018	Law 80	Parliament	Integrated Solid Waste Management (ISWM) Law - sets the framework for Integrated Solid Waste Management based on the principles of Law 444/2002. It combines the ISWM draft law of 2006 with thermal treatment waste to energy plants to be constructed in big cities (Tripoli, Beirut, Saida and Jiyeh). The ISWM law includes the below: - Article 4: Priorities of integrated solid waste management (considers the principle of preventive action and minimizing solid waste generation as a priority) - Article 7: Preventing random disposal, open dumping and burning of solid waste - Article 8: The "Polluter Pays Principle" - Article 10: National Strategy for SWM - Article 11: Local SWM programs - Articles 14 to 16: Responsibilities resulting from SWM

LEBANON GREEN AGRICULTURE - FOOD TRANSFORMATION FOR ECONOMIC RECOVERY (GATE)

ESMF

Year	Law/Decree	Reference Entity	Relevant Provisions
			- Article 20: Solid waste collection and transfer - Article 21: Sorting at source - Article 22: Solid waste treatment: reuse, recycling, composting, digestion, and energy recovery - Article 24: Final Disposal - Articles 25 to 27: Hazardous waste management - Article 28: Financing sources for ISWM - Article 29: non-monetary incentives - Articles 30 to 33: Responsibilities - Articles 34 to 37: Enforcement and penalties
2018	Decision 45	MoE	Sets a new Integrated Solid Waste Management (ISWM) policy for Lebanon having the following targets: - Achieving 35% material recovery, 50% energy recovery and 15% sanitary landfilling by 2035; - Devolving to the municipalities the responsibilities of reduction, re-use, sorting at source in addition to sweeping and waste collection. Municipalities will also be responsible for treatment and final disposal in part or in whole based on environmentally and economically viable projects. - Creating sanitary landfills in Beirut, Mount Lebanon, North and South Governorates - Building three interim storage plants for different types of waste including expired drugs, healthcare waste (hazardous and non-infectious and those requiring special management)
2018	Law 78	Parliament	The law for the protection of air quality - aims to protect ambient air quality by identifying, monitoring and assessing, preventing and controlling air pollution resulting from anthropogenic activities. This excludes air pollution caused by physical hazards, natural disasters, and occupational and indoor air pollution
2018	Law 77	Parliament	This law aims at organizing, developing, rationalizing and exploiting water resources and protecting them from depletion and pollution, raising the efficiency of transmission and distribution systems, and maintaining and operating water facilities in order to ensure the sustainable management of the natural water resources of the Lebanese State
2017	Circular 7/1	MoE	Updates Circular 8/1 (2015) - Guidelines on the Integrated Management of Solid Waste to the attention of Municipalities, Union of Municipalities and Quarries: - Sorting at source - List of establishments accepting recyclables
2017	Memo 9/1	MoE	Preventing wastewater discharge into artesian wells. The MoE requests the MoM to ask all concerned parties, especially municipalities and water establishments, to strictly prevent wastewater discharge into artesian wells and to oblige all owners of bottomless artesian wells (آبار الارتشاح) to close them within one month from the date of issuing the circular; to avoid serious environmental and health damage caused by groundwater pollution.
2016	Decision 189/1	MoE	Defines the mechanism for environmental compliance audit report review at the Ministry, which covers the submission process and report content.
2016	Decree 3989	CoM	Designation of an Environmental Police Department within the Ministry of Environment to regulate environmental crimes and enforce penalties; and specification of their organization and mandates.
2016	Decree 167	CoM	Determination of the procedures and principles of implementing Article 20 of Law 444 on the protection of the environment dated 29/07/2002. Aims at establishing the percentage of tax reduction for a number of activities aimed at protecting the environment. In detail it explains (i) tax cuts for environmental industry activities that meet all standards and conditions; (ii) tax cuts for spending aimed at environmental protection and sustainable conservation; (iii) reduction of custom tariffs on environmentally friendly goods.

LEBANON GREEN AGRICULTURE- FOOD TRANSFORMATION FOR ECONOMIC RECOVERY (GATE)

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Year	Law/Decree	Reference Entity	Relevant Provisions
2015	Decisions 261/1 and 262/1	MoE	Ministerial decisions related to the preparation and review procedure of EIAs.
2015	Circular 6/1	MoE	Defining EIA and IEE review fees and bank guarantees
2015	Decision 590/1	MoE	Environmental Clearance Mechanism of all permits related to industrial establishments.
2015	Circular 8/1	MoE	Sets guidelines concerning the Integrated Management of Domestic Solid Waste to the Attention of Municipalities, Unions of Municipalities, Sub-Governors (Qa'em maqams) and Governors (Mohafez). Includes guidelines on sorting at source and composting. Includes a list of recycling centers throughout Lebanon.
2014	Circular 9/1	MoE	Specifying documents to be submitted with IEE and EIA Reports
2014	Law 251	Parliament	Establishing an Environmental Prosecutor to handle environmental crimes associated with the violation of regulations
2013	Decision 202/1	MoE	Specification of the procedures and the mechanism of implementation of the Environmental Compliance of Establishments Decree (Decree 8471/2012). - Article 1: Procedures and mechanism to be followed by industrial establishments to apply for an Environmental Compliance Certificate - Article 2: Publication and implementation of the decision
2013	Decision 271/1	MoE	Correction of a mistake that occurred in Article 1 of Decision 202/1. - Article 1: Adjust paragraph 2 of Article 1 in Decision 202/1 - Article 2: Publication and implementation of the decision
2013	Decision 203/1	MoE	Establishment of a permanent committee to manage the environmental compliance system at the Ministry of Environment. - Article 1: Establishing the permanent committee - Article 2: Committee roles - Article 3: Date of implementation of the decision
2013	Decision 99/1		Guiding principles to industrial and commercial establishments and companies on how to report on a voluntary basis their GHG emissions and related activity data to the Ministry of Environment. Provides an incentive to the private sector (commercial, institutional and industrial enterprises) to report on a voluntary basis their GHG emissions and related activity data to the Ministry of Environment. As a quality assurance measure, the reported data is verified and certified by an auditor or accountant (from the submitter's side) prior to its submission and is further checked for completeness and consistency by the Ministry of Environment.
2012	Decree 8157	CoM	Establishing the National Council for the Environment and specifying its mandates and organization.
2012	EIA Decree 8633	MoE	Defining the scope and stages of the national EIA process

Year	Law/Decree	Reference Entity	Relevant Provisions
2012	Decree 8471	CoM	Environmental Compliance of Establishments. The Environmental Compliance Certificate (ECC) is a three-year renewable certificate proving the adherence of the industry to environmental standards and application of an environmental management system. According to this decree, industrial enterprises are required to carry out an EA including an Environmental Management Plan (EMP) at the facility level and to execute the required mitigation measures in order to be eligible to apply for the Environmental Compliance Certificate (ECC).
2012	Decision 14/1	MoI	General conditions for the permitting of industrial establishments. Provides general requirements for industrial permitting Section 1: specifies all the general requirements (including solid waste and wastewater management, storage conditions, adoption of water conservation measures in industrial processes, machines and generators' maintenance, ventilation, firefighting system and occupational health and safety requirements)
2012	Decision 6/1	MoI	Procedures and documents required for obtaining an operation permit for industrial facilities of all categories Specifies the measures and documents required for obtaining an operation permit for industrial facilities of all categories.
2009	Decree 2275	Parliament	Application Decree on the Organization and mandates of the Ministry of Environment, its divisions and departments.
2008	Law 37	Parliament	Defines and regulates the protection and management of cultural properties.
2005	Decision 3/1	MoE	Environmental Guidelines for the establishment and operation of small-scale wastewater treatment plants
2004	Law 646	Parliament	Amended Legislative Decree No. 148 dated 09/16/1983 (Building Law) Article 12 Limits of buildings: While following the imposed setback limits and land-use regulations which can be enforced later on based on regulations based on decree issued by the Council of Ministers, all buildings should be constructed according to the following stipulations: • Next to international roads, main roads, secondary roads, and local roads: The distance of the building should be in accordance with the distance that is imposed by the land's own setback decree. • Next to inner roads: The distance between the building and the road should follow the land's setback decree on the condition that the distance should be no less than 4.5 m if the width of the road is less than 6 m and 3 m in unregulated areas. • Next to train tracks: The building should be at least 3 m away from the borders of the rail property. • Next to "limited" water streams: the building should be built according to the imposed setback limits set by the area's urban planning regulations, on the condition that the distance should be no less than 2 m away from the borders of the property. • Next to winter seasonal water streams: The building should be at least 4.5 m away from the borders of the water stream. • Next to rivers: The building should be at least 10 m away from the boundaries of the river unless the area's urban planning regulations say otherwise. • Next to the limits of other public properties: Outside of the boundaries of Beirut, the building should be at least 3 m away from the boundaries of the public domain, while inside of the building should be at least 2 m away from the boundaries of the public domain.

LEBANON GREEN AGRICULTURE - FOOD TRANSFORMATION FOR ECONOMIC RECOVERY (GATE)

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Year	Law/Decree	Reference Entity	Relevant Provisions
2004	Decree 11802	CoM	Regulating occupational prevention, safety and health in all enterprises subject to the code of labor.
2003	Decree 9765	CoM	Inspection, measures, and sanctions applied to industrial establishments. Provides information on the inspection, measures, and sanctions applied to industrial establishments. - Describes the protocol for monitoring environmental performance of industries, as well as the penalties for violating industrial guidelines. Section 1 (General Provisions) - Specifies that the authorities in charge of industrial pollution control are the Ministry of Industry- Control Department, the Municipalities and the competent authorities of MoE and MoPH. Section 2 (Monitoring of Industrial Facilities) - States that an industrial establishment that repeatedly fails to comply with applicable regulations and standards can be closed following a decision taken by the Council of Ministers, following the Minister's recommendation. Section 3 (Measures and Sanctions) - Section 4 (Transitional and Final Provisions)
2002	Law 444	Parliament	Framework Law for Environmental Protection. Provides the principles and rules for protecting different environmental matrices (air, water, soil...) from pollution with wastewater, hazardous wastes, chemicals, and noise, etc.; and specifies the penalties for violating environmental laws. - Section 1 (Basic Principles and General Provision) - Section 2 (Organization of Environmental Protection), paragraph 4 (Environmental Monitoring Mechanisms) - Section 3 (Environmental Information System and Participation in Environmental Management and Protection) - Section 4 (Environmental Impact Assessment) - Section 5 (Environmental Protection) - Section 6 (Responsibilities and Sanctions)
2002	Decree 8018	CoM	Determination of the procedures and guidelines for the establishment and operation of industrial facilities Establishes procedures and guidelines for the establishment and operation of industrial institutions/facilities. Specifies the rules, regulations and requirements for obtaining an industrial permit, renewing industrial permits, and updating industrial permits. It also categorizes industries into 5 categories, depending on their impacts on the environment. Section 1 (General Provisions) Section 2 (Procedures and Licensing Requirements) Section 3 (Provision for Licensing) Section 4 (Provisions of rules for publishing, advertising, and follow-up methods) Section 5 (Final Provisions)
2002	Decree 7945	MoI	Determines the principles and procedures to be followed in the permitting committee meetings and tasks
2001	Decree 5243	CoM	Classification of Industrial Establishments (Amending Decree 4917 of 1994). Categorizes industries depending on the different types of production using ISIC classification.
1997	Law 623	Parliament	Implements penalties for vandalism of water, telephone and electricity infrastructure
1996	Decision 40/1	MoE	Enforcement of environmental guidelines among industries (Amendment of Decision 22/1)

LEBANON GREEN AGRI- FOOD TRANSFORMATION FOR ECONOMIC RECOVERY (GATE)

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Year	Law/Decree	Reference Entity	Relevant Provisions
1994	Decree 4917	CoM	Sets new amendments to categorize classified establishments that may cause nuisance to public health and/or the environment.
1994	Law 387	CoM	Permitting the Lebanese Government to join the Basel Convention on the transboundary movement of hazardous wastes. This regulates the transfer of potentially hazardous wastes across national boundaries and their means of disposal.
1990	Law 21	Parliament	Ratification of the UNESCO Convention for the Protection of Antiquities.
1988	Law 64/88	Parliament	Environmental protection against hazardous waste that could harm air, water, biodiversity, soil, and people.
1974	Decree 8735	CoM	Protection against pollution from solid and liquid waste (prohibiting the digging of wells for the disposal of raw sewage, banning sewage infiltration from septic tanks and the use of untreated sewage for the irrigation of vegetables and some fruit trees), and assigning solid waste management to municipalities.
1951	Decree 6341	CoM	Sets the principles of health protection and prevention in all establishments that are subject to the Labor Law
1943	Legislative Decree	CoM	Penal code
1936	Decree 1119	CoM	Implementation of the provisions of Legislative Decree 21 of 1932 relating to categorizing and permitting procedures of classified establishments that may cause nuisance to public health and/or the environment.
1936	Decision 6	-	Specifies the general health requirements for industrial establishments in order to protect the air quality, nearby sensitive receptors, and public health.
1933	Decree 2761	CoM	Provides guidelines related to Wastewater Management and Disposal
1932	Legislative Decree 21	CoM	Specifies the categorization and procedures for the permitting of classified establishments that may cause nuisance to public health and/or the environment.
1932	Decree law 16 L	CoM	The decree law based on Decision 320/1926 mandates the establishment of buffer zones for the protection of all surface and groundwater resources from any type of activity/potential source of pollution. Requirements for buffering are found in Decision 320/26
1926	Decision 320/1	Higher Commissioner	Decision relating to the conservation of public water and its use. It prohibits blocking the free flow of public water or the performance of some works such as drilling for underground or artesian water without obtaining the proper permit from the proper administration.
1925	Decision 144	Higher Commissioner	Decision relating to identifying public properties (terrestrial or maritime), their boundaries, and the specifications for their use and exploitation.

Table 2-13 Summary of Relevant Agricultural Legislations

Year	Law / Decree	Reference Entity	Relevant Provisions
2020	Law 158	Parliament	Organization of the Organic Farming Sector.
2019	Decree 5706	COM	Grants a legally binding status to the LIBNOR standards related to fertilizers and soil conditioners.
2016	Decision 469	MOA	Conditions for licensing the profession of importing fertilizers and soil conditioners.
2016	Decision 468	MOA	Conditions for registering fertilizers traded in Lebanon.
2013	Decision 1042/1	MOA	Organization and control of the import of fertilizers and soil conditioners to Lebanon.
2012	Decision 542/1	MOA	Establishment and Organization of the National Register of Organic Farming to have efficient inspection over this sector.
2012	Decision 767/1	MOA	Mechanism for joining the list of national experts in organic production.
2012	Decision 1102/1	MOA	Amendment of MOA Decision 507/1 with respect to the allowed concentration chemicals in the fertilizers, as well as to the labelling requirements of the fertilizers.
2012	Decision 507/1	MOA	Classification and registration of fertilizers and soil conditioners.
2012	Decision 48/1	MOA	Control of the use of raw materials from antibiotics (joint decision with the Ministry of Public Health).
2011	Decision 791/1	MOA	Classification of fertilizers and soil conditioners.
2011	Decision 790/1	MOA	Conditions for pre-licensing the profession of selling fertilizers and soil conditioners.
2011	Decision 789	MOA	Conditions for pre-licensing the profession of importing fertilizers and soil conditioners.
2011	Decision 1033/1	MOA	Organization of the Organic Farming Sector.
2011	Decision 294/1	MOA	Bans the import and registration of some growth regulators 4-Chlorophenoxyacetic acid (4-CPA), Naphthyl oxyacetic acid (NOA), Naphthylacetic acid hydrazide (NAA), N-Phenyl Phthalamic acid, β -Naphthyl oxyacetic acid (β NOA).
2010	Decision 496/1	MOA	Regulating sampling methods and transportation of the samples for imports.
2009	Decision 49/1	MOA	Amendment of the Decision No. 326/1 dated 15/10/2004 (Reactivation of the MOA Laboratory in Kfarchima for the analysis of agricultural chemicals).
1968	Law 68/6	Parliament	Regulating the trade of fertilizers, agricultural medicines and fodder.
1946	Decision 2351	Ministry of Economy	Subjecting chemical fertilizers to a controlled distribution system.

2.3.3 National and International Standards for Environmental Quality

The main legislative texts that stipulate environmental standards in Lebanon are listed in Table 2-14.

Table 2-14 Relevant National & International Environmental Standards

Environmental Media	National Standard	International Standard
Ambient air quality	MoE Decision 8/1 of 30 January 2001 MoE Decision 52/1 of 29 July 1996 MoE Decision 7/1 of 16 November 2016 MoE Decision 16/1 of 10 February 2022 (new air emissions standards)	World Health Organization (WHO) Air Quality Guidelines, global update 2005
Noise		WHO Guidelines for Community Noise, 1999
Groundwater quality for drinking)		WHO Guidelines for Drinking-water Quality, Fourth Edition, 2011
Groundwater (ambient)		EU Groundwater Directive 2006/118/EC
Surface water quality		US EPA National Recommended Water Quality Criteria Mekong River Commission: Technical Guidelines for the Protection of Aquatic Life Mekong River Commission Technical Guidelines for the Protection of Human Health
Effluent quality	No specific leachate standards	International Finance Corporation-World Bank Group (IFC-WBG) EHS General Guidelines
Leachate management		IFC-WBG EHS Guidelines for Waste Management Facilities

The Council of Ministers issued Decree 5706 in 2019 which endorsed the standards for fertilizers and soil conditioners issued by LIBNOR by granting them a legally binding status. The standards are available if purchased from LIBNOR only.

2.4 RELEVANT NATIONAL SOCIAL LAWS, REGULATIONS, AND POLICIES

2.4.1 Social Risk Assessment as part of ESIA process

When developing an Environmental Impact Assessment (EIA) report, it is requested to also consider the social impact that the project may have on the surrounding community, including affected people, beneficiaries, and others according to the World Bank requirements (ESS1). Decisions Nos. 260/1 and 261/1 of 2015 regulate the structure and content of IEE and EIA reports¹, respectively², but with nominal requirements from a social perspective. A summary of all relevant legislation mentioned throughout this section is provided in Table 2-15.

Key social legislation is discussed below, and all legislative texts regulating labor conditions are further elaborated in the Labor Management Plan (LMP).

¹ IEE; Initial Environmental Examination; EIA: Environmental Impact Assessment. An EIA consists of a scoping report followed by an EIA report that covers the same sections as an IEE report, in addition to public consultation and analysis of project alternatives. Annexes 1 and 2 of the EIA Decree list the projects requiring an EIA and those requiring an IEE, respectively.

² The World Bank ESS1 emphasizes the social impacts of the project in addition to the environmental impacts; while the Decree 8633*2012 and Lebanese decisions 260/1 and 261/1 of 2015 focus more on the environmental impacts than the social ones.

Table 2-15 Summary Table of all Relevant In-Force Social Legislation in Lebanon

Legislation Type and No.	Year of Issuance	Reference Entity	Brief Description
Decree 10598	2022	CoM	Raises the salaries of all employees and workers (in the private and public sectors) subject to the Labor Law by an amount of LBP 600,000 unless they are benefiting from social assistance.
Decree 9129	2022	CoM	Raises the salaries of employees and workers (as set by Decree 7426/2012) by the following amounts: - For salaries below LBP 4,000,000/month: an increase of LBP 1,325,000/month - For salaries exceeding LBP 4,000,000: the amount specified in agreements and collective negotiations in line with the ILO Convention number 131 as specified in Legislative Decree 70/1977. - For daily remunerations not exceeding LBP 182,000LBP: an increase of LBP 61,000/day - For salaries exceeding LBP 4,000,000: the amount specified in agreements and collective negotiations in line with the ILO Convention number 131 as specified in Legislative Decree 70/1977.
Law 205	2020	Parliament	Criminalizes sexual harassment at any location.
Decision 291/	2018	MoL	Restricts a substantive number of jobs to Lebanese citizens in order to protect the workforce and reduce unemployment. These consist of all jobs practiced by Lebanese citizens include tiling, plastering, gypsum board, iron, wood and aluminum profile installation and other decorative tasks. Engineering is also restricted to Lebanese citizens. On March 21, 2018, a clarification letter was issued by MoL regarding Decision 29/1, which states that Syrians are allowed to occupy jobs in the construction sector that are not restricted to the Lebanese as per Decision 29/1 of 2018.
Law 28	2017	Parliament	Stipulates the right for any natural or legal person to have access to public information in Lebanon from any governmental institution. This law also obligates governmental administrations to publish and make available all financial and administrative data for the citizens.
Law 340 – Penal Code	2016	Parliament	Abolishment of Article 522 of the Penal Code that exempts a rapist from punishment if he marries his victim.
Decree 3791 (amending Decree 7426 of 2012)	2016	CoM	Set and apply the official minimum wage for employees and workers subject to the labor law and the cost of living ratio. Raises the minimum daily wage to 26,000 LBP.
Law 293	2014	Parliament	Law on the Protection of Women and Family Members from Domestic Violence. Advances women's rights and safety. Establishes important protection measures and related policing and court reforms.
Decree 8987	2012	MoL	Forbids the employment of adolescents and children under 18 years of age in jobs that pose a risk to their health, safety and behaviour.
Decree No. 7426	2012	MoL	Sets the minimum wage at 675,000 LBP.
Law 28	2007	Parliament	All public institutions are instructed to activate administrative self-monitoring and to enhance transparency and positivity in the communication between the administration and the citizens, within one month from the date of the circular.
Decree 11802	2004	CoM	Organizes occupational safety, safety and health in all

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Legislation Type and No.	Year of Issuance	Reference Entity	Brief Description
			institutions subject to labor law, and provides the general regulations for the occupational health and safety
Law 400	2002	Parliament	Ratification of ILO Convention No. 138: Minimum age of employment on tasks and works that pose risks or hazards to health and safety
Law 335	2001	Parliament	Ratification of ILO Convention No. 128: Does not allow the employment of children and protects them from engaging in any work activities that could harm their health and safety.
Law 220	2000	Parliament	Stipulates the civil rights of people with a disability.
Law 207	2000	Parliament	Prohibits all forms of discrimination between men and women in the workplace concerning employment type, remuneration, employment, promotions and raises, vocational training and attire.
Decision 49/1	1997	MoL	Forbids the employment of adolescents and children under 18 years of age in non-industrial settings, unless a medical examination proves them apt to perform such work.
Law No. 58 (amended on 8/12/2006)	1991	Parliament	Lebanese expropriation law authorizes the expropriation of private property in the public interest, but only after fair compensation has been made.
Tenancy Law	1991	Parliament	Gives the land owner the right to retrieve the property at the end of the contract. Where expropriation causes loss of tenancy, expropriation commissions divide their awards between landlords and tenants according to the economic value of the tenancy, enabling tenants to secure alternative housing by rental or down-payment for the purchase of a housing alternative.
Labor Code and its amendments	1946	MoL	Sets the framework for the terms and conditions of Employment, and rules governing the relationship between employers and employees. The law includes but is not limited to: • Terms and conditions of employment • Maternity and family leave • International labour standards The Labor law is further detailed in the LMP report.

2.4.2 Occupational Health and Safety (OHS)

The Council of Ministers issued Decree 11802 in 2004 to organize occupational prevention, safety and health in all institutions subject to the Labor Law.

The Decree provides the general regulations for the prevention of occupational hazards and accidents, and the promotion of health and safety in all industrial establishments subject to the Labor Law. These cover prevention and safety, occupational health, the safe use of chemicals at work, as well as occupational noise standards.

2.4.3 Vulnerable Groups Regulatory Framework and Baseline

Vulnerable groups in Lebanon include women, children, people with disability, elderly, and displaced persons. Displaced persons are considered among vulnerable communities as they do not benefit from governmental services. Relevant clauses from legislative texts are elaborated in Section 2.3.

Additionally, specific legislation relating to the topics below is currently in force.

2.4.3.1 Gender and Sexual Exploitation and Abuse / Sexual Harassment

Law No. 205 issued in 2020 criminalizes sexual harassment which is defined as follows: any bad and repetitive behavior that is unordinary, unwelcome by the victim, carries a sexual connotation, and that constitutes a violation of the body, privacy, or feelings. Sexual harassment might take place at any location and through sexual words, acts, signs, allusions, and through any means including electronic means.

The Labor Code prohibits discrimination between workers based on their gender, with respect to type of work, amount of wage or salary, employment, promotion, professional qualification, and apparel (LC, art. 26). Equal rights shall be given to all employees.

However, Labor Code defines a set of prohibitions for women in specific fields and sectors (mining, production and use of explosives, and production of alcohol).

2.4.3.2 Child Labor

The Labor Code clearly stipulates that engaging children in jobs, especially those that may put their health and safety at risk, is prohibited. LC sets the norms to be followed as mentioned in Section **Error! Reference source not found..**

2.4.3.3 Disability

Act No. 220 (2000) provides that a certain number of jobs in the public sector are allocated to persons with disabilities (Act No. 220 of 2000, art. 73). Quotas are also applicable to private sector employers, depending on their size (Act No. 220 of 2000, art. 74).

2.5 ENVIRONMENTAL AND SOCIAL FRAMEWORK OF THE WORLD BANK

The environmental and social policy for World Bank financed projects is required to be applied under the Environmental and Social Framework (ESF). This is to ensure that the WB supported projects are environmentally and socially sound and sustainable. Likewise, this will inform the design of the projects and identify mitigation measures and actions to improve decision making. The ESF enables the financing recipient to better assess the environmental and social risks of projects and to improve development outcomes. Consistent with the Bank's environmental and social policy, the Project is expected to meet the requirements set forth in the Environmental and Social Standards (ESS) (World Bank, 2017); the applicable ESSs for this project are listed below:

- ESS1: Assessment and Management of Environmental and Social Risks and Impacts
- ESS2: Labor and Working Conditions
- ESS3: Resource Efficiency and Pollution Prevention and Management
- ESS4: Community Health and Safety
- ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS9: Financial intermediaries
- ESS10: Stakeholder Engagement and Information Disclosure

Additionally, the project is expected to meet Environmental, Health, and Safety (EHS) Guidelines (April 2007) and other industry sector related guidelines on:

- Guidelines for Agri-Business/ Food Production;
- Waste management facilities (December 2007); and
- Water and sanitation (December 2007)

2.6 INSTITUTIONAL FRAMEWORK RELEVANT TO THE PROJECT

The overall Project implementation would be led by the Council for Development and Reconstruction (CDR) as Project Implementing Agency (PIA), through a Project Coordination Unit (PCU). The Borrower is represented by the Council for Development and Reconstruction (CDR) which will establish a PCU to implement the Project. The PCU would lead the overall project management and coordination, by: (i) ensuring strategic oversight of overall project implementation; (ii) ensuring coordination and cooperation among all participating agencies and institutions; (iii) providing overall guidance during project implementation; and (v) endorsing financial, programmatic, and monitoring reports to be presented to the World Bank and other national stakeholders to ensure transparency and accountability. The project is to be implemented over a five-year period. CDR will be responsible for the procurement, financial management, safeguards, and monitoring aspects of all components except component 1.2 which would be implemented by Kafalat and Component 2.1 which would be implemented by the Green Plan.

The national government authorities with their corresponding functions and responsibilities with respect to the project are detailed in Table 2-16.

Table 2-16 Governmental Authorities and their Main Functions and Responsibilities

Authority	Main functions	Main Responsibilities in the project
CDR as Project Implementing Agency (PIA) through the PCU	was established through Decree No. 5 dated 31 January 1977. The responsibilities of the CDR were specified to three main tasks: complying with a plan and a time schedule for the resumption of reconstruction and of development, guaranteeing the funding of projects presented, supervising their execution and utilization by contributing to the process of rehabilitation of public institutions, thus enabling it to assume responsibility for the execution of several projects under the supervision of the Council of Ministers.	- o Representing the borrower - o Implementation of the project through the PCU - o General oversight over the project implementation (all components) - o Delegation of the implementation of component 1.2 to Kafalat through a subsidiary agreement
Kafalat	Is the national credit guarantee agency, a financial company with a public concern that assists small and medium-sized enterprises (SMEs)	Will lead Component 1 (sub-component 1.2) : through a subsidiary agreement to be signed between the GOL and Kafalat.
MOA	Ministry of Agriculture is the main governmental body responsible for Lebanon's agricultural development and the regulation of fertilizers, pesticides, and animal feed. Also responsible for improving the value chains and increasing the value-added for products of plant origin by strengthening the management of agricultural inputs including pesticides and fertilizers; promoting good agricultural practices, thus aiming to achieve sustainable food security, agriculture and rural development.	Will be part of the PSC. Will lead Subcomponent 1.1; Provide support in the implementation of subcomponent 2.1 and 2.2. Provide technical oversight in subcomponent 3.1 and 3.2.
Mol	The Ministry of Industry contributes to the development of industrial sector, supervising the application of laws and regulations related to industrial affairs and taking the necessary measures to prepare, coordinate and implement to improve the local industry through a general policy that preserves the economic balance. The Mol also issues permits for the construction and operation of industrial establishments of all classes, monitors their compliance with the guidelines and conditions stipulated in the permit, and coordinates with the members of the industrial licensing committee to mandate the compliance of non-compliant establishments within a specific deadline. Mol has the prerogative of closing a non-compliant establishment after the specified compliance deadline has elapsed, following consultation with the	Will be part of the PSC. Will provide technical oversight on the implementation of Sub-component 3.1 and 3.2.

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Authority	Main functions	Main Responsibilities in the project
	licensing committee and the concerned municipality.	
Lebanese Agriculture Research Institute (LARI)	Is to support agriculture research and provide public services such as lab analyses and early warning about pests, diseases, and climatic events	Will be supporting MOA) mainly in the implementation of subcomponent 1.1 .
Green Plan (GP)	for investments in land reclamation, and agriculture development (water harvesting through hill lakes; irrigation infrastructure)	Will implement subcomponent 2.1
MOET	is responsible for trade agreements, leading participation and organization of trade exhibitions, retail price controls, and consumer protection, and securing national food security through import facilitation of grain and strategic commodity imports; also oversees the four Chambers of Commerce, Industry and Agriculture (CCIA) that represent the private sector	Will be part of the PSC. Will provide technical leadership of subcomponent 3.3 .
Ministry of Energy and Water (MOEW)	regulates the management of the energy and water sectors and resources	Will be part of the PSC. Will provide support in the implementation of Subcomponent 2.2
Litani River Authority (LRA)	overall responsibility for the management of the Litani River and the Qaraoun lake. Manage and exploit irrigation water within its field of exploitation (South Bekaa and South Lebanon). Therefore, it is responsible for irrigation management of Qasmiyeh-Ras el Ain scheme. In addition to water distribution in these schemes, LRA plays an important role in monitoring water quality through its Environmental Unit that also has an objective of building capacities to be able to detect pollutants and their sources at an early stage, by finding a legal framework to monitor factories, agricultural activities, crushers and liquid and solid wastes.	Will provide support in the implementation of Subcomponent 2.2
Water Establishments	Responsible for wastewater and domestic water management and infrastructure	Will provide support in the implementation of Subcomponent 2.2
Ministry of Environment (MOE)	Responsible for the implementation of the Law on Environmental Protection. At the regional level (Governorates and Cazas), public authorities in addition to municipalities are responsible for the enforcement of the environmental legislation	Will be part of the PSC. Will provide support in the implementation of Subcomponent 2.2

Authority	Main functions	Main Responsibilities in the project
MOPH	Protection of public health and prevention of the spread of diseases; Formulation of laws & regulations pertaining to all fields of public health	is responsible for checking the compliance of the industries conditions with necessary health related conditions, especially those related to food safety; Contributes to setting allowable levels for contaminants in water and inspecting and protecting water resources. The MoPH also checks that all workers operating in the food industry undergo medical health checks every three months at a public hospital.
Governorates	The governor directly represents the central authority. He is the mediator between the central administration and the people residing in his area. The governor is concerned with improving living conditions in villages, and he exercises the powers given to the Minister of Agriculture with regard to appointing communal committees and their employees and approving their decisions, as well as with regard to appointing watchmen and powers related to public health rules and classified establishments of the first and second categories. In this context, he is the one who issues licenses for poultry and livestock farms and warehouses related to any agricultural activity. He replaces the MOPH in providing licenses to manufacture and sell green cheese, to acquire and raise pigs, and to ensure that the buildings are provided with sanitary appliances. The governor authorizes the right to supervise water user associations and other irrigation committees for projects of public interest, ratify their regulations, budgets and decisions, and appoint their bodies and employees in accordance with the laws and regulations in force. All administrative departments in the governorate are under the direct supervision of the governor.	Will be involved in the implementation of Subcomponent 2.1 , they will be part of the technical evaluation committee reviewing the proposals received and approve final list of projects.
Unions of Municipalities (UoM)	The UoM undertakes the preparation of the required technical studies and consultations for the benefit of the member municipalities. UoMs prepare reports to the head of the concerned municipality related to health violations and other violations that are within the jurisdiction of this staff and which fall within the scope of the municipality.	Will be involved in the implementation of Subcomponent 2.1 .

Authority	Main functions	Main Responsibilities in the project
	The UoM Council deliberates and decides on public projects that benefit all or some of the member municipalities, or that cover more than one federation, whether these projects are existing or planned, such as roads, sewers, waste management, slaughterhouses, firefighting, organizing transportation, cooperatives, popular markets, etc., and managing commons located within the jurisdiction of the UoM's municipalities, whose management does not belong to a specific municipality, and the approval of the development plan within the scope and powers of the union.	

A Project Steering Committee (PSC), chaired by both Ministers of Agriculture and Economy and Trade, will be established to oversee the implementation of Project activities and resolve issues of a policy nature that might arise during project execution. The PSC will be responsible for approving the project's annual budget and approving the recommended sub-projects for implementation and shall consult and coordinate between its members to overcome any obstacles that hinder the implementation of the project. In addition to its chairs, it will include the Ministry of Finance, Ministry of Industry, Ministry of Environment, Ministry of Energy and Water, and Ministry of Tourism.

2.7 GAP ANALYSIS

The policies of the World Bank and the related Lebanese legislation were reviewed and analyzed to identify gaps and measures to bridge them, as detailed in Table 2-17.

Table 2-17 Gap Analysis of Existing World Bank and Lebanon Policies

Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
Environmental and Social Impact Assessment	ESS1: The conduct of an assessment of the environmental and social risks and impacts (i.e., direct, indirect, cumulative) is required for proposed World Bank-financed and associated facilities across its project phases (i.e., preconstruction, construction, operation, decommissioning, closure, and reinstatement/restoration phases, whichever are relevant). Borrowers are required to undertake the following: <u>Environmental and Social Assessment</u> , identification and evaluation of potential environmental and social risks and impacts; <u>Stakeholder Engagement</u> , preparation of stakeholder engagement plans (SEP), information disclosure, and meaningful consultation as provided by ESS-10; <u>Environmental and Social Commitment Plan</u>	Law 444 (Protection of the Environment) Sets the framework for environmental protection. It provides the principles and rules for protecting different environmental matrices (air, water, soil...) from pollution with wastewater, hazardous wastes, chemicals, and noise, etc.; and specifies the penalties for violating environmental laws. Decree 8633 (28 March 2012) "Environmental impact assessment" sets principles and measures necessary to assess the environmental impact of development Projects. The EIA decree addresses the objectives of the regulation, definitions, as well as various stages of the national EIA process such as screening, scoping, implementation, and review of the EIA report, in addition to the period of validity, and the appeal process. The EIA Decree also lists all the activities for which EIA or permit conditions are mandatory, and those that require an IEE.	WB ESS and Lebanon policies on EIA are aligned in terms of assessing environmental impacts of projects as a whole, focusing on the natural environment as well as on the socio-economic impacts that the project may have on the surrounding community, including affected people, beneficiaries, and others. If the proposed project falls in the domain of Annex 1, it will be subjected to an "EIA" study according to information contained in Annex 8. If the proposed project falls in the domain of Annex 2, it will be subjected to an "initial environmental examination" as per information contained in Annex 6. If the proposed project falls under Annex 2 and is located in an area listed in Annex 3 (sensitive areas), or it may have a significant environmental impact on that area, the project will be subjected to an EIA study. If the project does not fall in the domain of Annex 1 or Annex 2 but is located in an area listed in Annex 3 where it may have a significant environmental impact, it will be subjected to an "Initial Environmental Examination". The inclusion of public participation in the EIA process is required, while it is not in the IEE (Initial Environmental Examination) process. The ESAs and ESMPs that will be developed for the sub-projects will specifically include focus on social assessment and management plus vulnerable groups and will include specific stakeholder engagement plans. Where a project would be classified as requiring an IEE according to the EIA decree, but it requires an ESMP in line with WB ESS, a public consultation has to be	MoE, CDRPCU, WB

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Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
	[ESCP], time bound planning of actions and measures for identified potential risks and impacts; and, <u>Monitoring and Reporting</u>, performance tracking and evaluation of actions identified in the ESCP. For projects that include existing facilities for rehabilitation, a review and audit must be conducted to identify corrective actions to align the existing facility with the requirements of the ESS and must be indicated in the ESCP. All high-risk projects and sub-projects must be in accordance with ESS, while substantial-risk to low-risk projects must be in accordance with national laws and the ESS deemed relevant by the WB. A CBA or other analyses will be required for instances wherein selected option in site, design or technology poses higher environmental and social risks compared to	The EIA Decree lists the content of the assessment that is similar to WB ESS1 requirements (including environmental and social impact assessment, stakeholder engagement, monitoring and reporting...). -MoE Decision 260/1 (12 June 2015), "Procedure for the review of IEE reports" -MoE Decision 261/1 (12 June 2015) "Procedure for the review of scoping and EIA reports" -MoE Decision 262/1 (12 June 2015): Procedure for the review of objections on MoE's decisions relating to submitted EIA reports Decree 8471/2012 and its application decisions specify the need to audit existing and operational establishments, as well as the outline of the Environmental Audit report.	carried out to satisfy the WB requirements. Additional reports required in line with WB standards and that are not required as per Lebanese legislation shall be prepared for the sub-projects and submitted for review and approval by WB.	

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Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
	other options. The necessary capacity and training related to the implementation and monitoring of the ESCP must be included as part of its measures. The application of this ESS is contingent to ensuring the compliance to ESS10, and the other ESS as necessary within the context of the project.			
Labor Conditions and Occupational Safety	ESS2: Environmental and social assessment must include relevant risks and impacts including implications to health, safety and wellbeing of workers of the facility (ESS-1 Par 28)	The Labor Code of Lebanon dated 1946 sets the framework for the terms and conditions of Employment, and rules governing the relationship between employers and employees. It regulates key issues such as Minimum age of employment, Wages, Rest, Leave, and Overtime, Maternity and Family Leave, and Severance Pay among other issues. Decree 11802 in 2004 organizes occupational prevention, safety, and health in all institutions subject to labor law. The Decree provides the general regulations for the prevention of occupational hazards and	The WB ESS prohibits the employment of children under the age of 18 in hazardous work; and Decree 8982 as well. However, national laws only cover children employed in the formal sector. Most child labor, especially the ones with poor labor conditions, are in the informal sector mainly in agricultural production. The LMP will be developed to require the contractors to comply with ESS2 for labor conditions as ESS2 is more stringent; as well as monitor their compliance.	MoL, MoE, CDRPCU

Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
		accidents, and the promotion of health and safety in all industrial establishments subject to the Labor Law. These cover prevention and safety, occupational health, the safe use of chemicals at work, as well as occupational noise standards. Decree 8987 of 2012 forbids the employment of adolescents and children under 18 years of age in jobs that pose a risk to their health, safety, and behavior		
	ESS2: management procedures for all types of workers to be employed or engaged by the project must include minimum benefits, termination agreements, principle of non-discrimination and equal opportunity, minimum age of workers, occupational health and safety, and grievance mechanism to establish labor standards in the workplace. ESS 2 para 19, and footnote 13, notes that a child under the age of 18 may be	Applicable relevant social legislation presented (Section 2.4). Additional laws relevant to ESS 2 are developed below. The Labor Code prohibits discrimination between men and women Law No. 205 of 2020 criminalizes any act of sexual harassment, especially in the workplace.	Recruitment is not expressly covered in the Labor Code. Law No. 205 of 2020 still needs enforcement at the level of implementation and the sequence of procedures to be followed in order to protect victims from sexual harassment. The Labor Management Procedures (LMP) will cover these gaps and all the aspects of labor management; the Project will follow the ESS2 in terms of minimum age and specially GM. A Code of Conduct shall also be developed in line with Lebanese legislation and the WB policies.	CDRPCU

Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
	employed or engaged in connection with the project if there is no hazardous work, an appropriate risk assessment is conducted prior to the work commencing, and the recipient conducts regular monitoring of health, working conditions, hours of work. Occupational Health and Safety guidelines related to perennial crop production (WB, 2016). Occupational health and safety measures for water and sanitation projects (WB, 2007).			
Pollution (air, noise, water)	ESS3: Policies related to requirements and standards related to the sustainable use of resources in the various stages of the project must be laid out. Additionally, measures for prevention and mitigation of short and long-term pollution (i.e., air, water, noise) and waste (i.e., hazardous, non-hazardous, and chemical) must also be provided.	Law 444 (Protection of the Environment) mandates the formulation of sub-decrees on Air Pollution Monitoring and Noise Disturbance, Water Pollution Control, and Environmental Impact Assessment Process.	Given that Lebanese legislation is still loose with respect to resource efficiency, sustainable exploitation, and pollution prevention, management measures shall be developed under the ESMPs and ESAs in line with ESS3 to be prepared, submitted, and implemented. Emissions will be monitored to ensure abidance by the applicable regulations.	MOE, CDRPCU

Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
	General EHS Guidelines: International Standards on Air Quality and Noise Level was included in the guidelines: <u>Ambient Air Quality</u>: WHO Ambient Air Quality Standards set in 2005 were adopted. <u>Noise Level</u>: WHO Guidelines on Community Noise set in 1999 was adopted. (p.4, 53)	Law No. 78 of 2018: Ambient Air Protection defines the basic principles and provisions for the protection of ambient air quality. The National Standards for Environmental Quality (NSEQ) are defined in Decision 52/1 issued in 1996. The Decision specifies the Environmental Limit Values (ELVs) for each of the following relevant resources: Drinking water standards; Surface water for human use standards; Standards for water bodies supporting aquatic life; Discharge or dumping of liquid and solid wastes in surface water bodies, groundwater or seawater within international borders; Limit values for air pollutant emissions from municipal solid waste incinerators; and Ambient air quality standards; Ambient noise standards and occupational Noise Exposure. MoE Decision 16/1 issued in 2022 has updated air emissions standards.	Given that there are Lebanese standards but that some of these might be outdated, where international standards are more stringent than Lebanese ones (or where Lebanese standards are absent), they will be adopted.	MOE, CDRPCU

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Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
	EHS Guidelines for Waste Management Facilities on emission and noise management: Additional guidelines on emission management specific for Waste Management Facilities include: (1) inclusion of landfill gas collection system and its use if practical, (2) use of gas blowers, and (3) installation and regular sampling of boreholes. Additional guidelines on noise management specific for Waste Management Facilities include: (1) construction of a buffer zone, (2) road quality maintenance (3) use of equipment with low-noise emission levels, (4) use of sound-insulating materials, acoustic screens and silencing equipment, (5) enclose inherently noisy equipment in a fixed structure, and (6) inclusion of noise considerations in the design process.	Decision 52/1 issued in 1996 specifies ambient noise standards and occupational Noise Exposure standards. No legal text regulates SWMFs particularly. Decision 5/1 issued in 2001: specifies the Environmental Guidelines for the Establishment and/or Operation of Vegetables and Fruits preservation. Decision 29/1 issued in 2001 defines the Environmental Guidelines for the Establishment and/or Operation of industries producing cheese, yogurt, butter and all dairy products.	Given that Lebanese legislation governing the operation of SWM facilities is still incomplete and that WB EHS Guidelines are more comprehensive and stringent, WB EHS Guidelines for Waste Management Facilities shall be enforced	MOE, CDRPCU, Consultant/ Engineering firms

Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
Sector-Specific Guidelines	Environmental Health and Safety guidelines for Annual Crop Production on (1) Soil Conservation and Management; (2) Nutrient Management; (3) Crop Residue and Solid Waste Management; (4) Water Management; (5) Pest Management; (6) Use and Management of Pesticides; (7) Fertilizers; (8) Biodiversity and Ecosystems; (9) Genetically Modified crops; (10) Energy Use; (11) Air Quality and (12) Green House Gas (GHG) emissions. Environmental Health and Safety guidelines on Water and Sanitation on (1) Water withdrawal; (2) treatment; (3) distribution; Sanitation (4) Fecal sludge and septage collection; (5) sewerage discharge & leaks/overflows; (6) wastewater & sludge treatment and discharge. Environmental, Health, and Safety Guidelines for Food and Beverage Processing: 1) Industry-specific impacts and Management: Environment (Solid	Decision 3/1 issued in 2005 by MoE provides Environmental Guidelines for the establishment and operation of small-scale wastewater treatment plants Law 77/2018 (Water Code) Law 80/2018 (ISWM) Law 130/2019 (Protected Areas) MOE Decision 16/1 of 2022 (updated air emissions standards) MOE Decision 8/1 (2001) relating to standards for wastewater emission into receiving media Decree 11802/2004 (Regulating Occupational Prevention, Safety and Health in all Enterprises subject to the Code of Labor) MOE Decision 5/1 (2018) (Guidelines for the establishment and operation of fruit and vegetable preservation facilities) MOE Decision 29/1 (2018) (Guidelines for the establishment and operation of Dairy Products)	Given that Lebanese regulations, guidelines, and standards are less stringent and less comprehensive than WB sector-specific guidelines, WB guidelines shall apply wherever applicable.	MOE, CDRPCU, Consultant/ Engineering firms

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Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
	Waste, Wastewater, Energy Consumption, Emissions to Air, Odor), Occupational Health and Safety (Physical hazards, Biological hazards, Chemical hazards, Heat and Cold), Community Health and Safety (Process, Equipment, and Staff Hygiene; Food Safety Impacts and Management); 2) Performance Indicators and Monitoring: Environment (Emissions and Effluent Guidelines; Resource Use and Waste Generation; Environmental Monitoring); Occupational Health and Safety (Occupational Health and Safety Guidelines; Accident and Fatality Rates; Occupational Health and Safety Monitoring).			
Community Health and Safety	ESS1: Environmental social assessment must include relevant risks and impacts on the health, safety and well-being of project affected communities, along with the community safety provisions of the EHS Guidelines.	Law 444 and Decree 8633 (EIA); The Labor Code and Decree 11802	WB ESS are more comprehensive and stringent than Lebanese legislation that does not tackle all ESS. Assess and manage specific risks and impacts to the community arising from Project activities by preparing all relevant instruments in line with WB ESF. The ESMFs/ ESIs for the sub-projects to be prepared in accordance with the ESMF, as well as all other relevant instruments (LMP,	MoE, CDRPCU, Municipalities, contractors, Consultant/ Engineering firms

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Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
			RF...).	
	ESS4: The risks and impacts to the health, safety, and security of the identified project-affected persons and community must be identified and minimized. All potential risks across all phases of the projects must be identified and evaluated while taking into consideration the circumstances of disadvantaged and vulnerable groups.	Decree 8633 (EIA)	WB ESS are more comprehensive and stringent than Lebanese legislation that does not tackle all ESS. For instance, Lebanese legislation does not tackle disadvantaged and vulnerable groups. Assess and manage specific risks and impacts to the PAPs and community arising from Project activities by preparing all relevant instruments in line with WB ESF. The ESMPs/ ESIAs for the sub-projects to be prepared in accordance with the ESMF, as well as all other relevant instruments (LMP, RF...).	MoE, CDRPCU, Municipalities, contractors, Consultant/ Engineering firms
	EHS Guidelines for Waste Management Facilities: <u>Long-term Operation, Decommissioning or Closure:</u> Specific procedures on closure must emphasize preservation of long-term integrity and security of the site. The closure and post-closure plan must include mitigating impacts to human health and environment after the closure. All plans must	In 2018, Law No. 80 came into force to draw up the integrated solid waste management framework based on the principles of Law No. 444 of 2002. It combines the ISWM draft law of 2006 with thermal treatment waste to energy plants to be constructed in big cities (Tripoli, Beirut, Saida and Jieh). The ISWM law includes the following: Article 4: Priorities of integrated solid waste management (considers the principle of preventive	Lebanese regulations do not cover many of the aspects covered by WB EHS guidelines for Waste Management Facilities. Thus, ESMPs and ESIAs to be prepared for SWM projects shall address decommissioning and closure impacts and relevant mitigation measures. EHS Guidelines that are not covered in Lebanese legislation shall be recommended and implemented (e.g., EHS Guidelines for Waste Management Facilities; landfill siting; etc.).	CDRPCU, MoE, Municipalities, contractors, Consultant/ Engineering firms

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	be aligned with the defined post-closure use. <u>Landfill Siting:</u> In the identification of landfill sites, the nearest residential developments must be over 250 meters from the site option. <u>Community Health and Safety:</u> The following impacts likely to occur during the operation and decommissioning phases must be looked into: Waste scavenging: should not be allowed under any circumstances in hazardous and non-hazardous industrial waste management facilities. Only facilities handling municipal solid waste may consider incorporating the employment of scavengers. Physical, chemical, and biological hazards: access to facilities, especially for areas that hold toxic waste, must be restricted and security procedures must be implemented. Litter: garbage outside the facility must be	action and minimizing solid waste generation as a priority); Article 7: Preventing random disposal, open dumping and burning of solid waste; Article 8: The "Polluter Pays Principle"; Article 10: National Strategy for SWM; Article 11: Local SWM programs; Articles 14 to 16: Responsibilities resulting from SWM; Article 20: Solid waste collection and transfer; Article 21: Sorting at source; Article 22: Solid waste treatment: reuse, recycling, composting, digestion, and energy recovery; Article 24: Final Disposal; Articles 25 to 27: Hazardous waste management; Article 28: Financing sources for ISWM; Article 29: non-monetary incentives; Articles 30 to 33: Responsibilities; Articles 34 to 37: Enforcement and penalties.		

Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
	managed to avoid the exposure of the adjacent community to hazardous substances and potential spread of disease. Noise: measures to manage noise should be taken to avoid causing nuisance to the adjacent areas. Dust and odors: Buffer areas must be included in the design, especially between processing areas and potential receptors, especially residences, hospitals and schools. Processing areas must be located in areas at the downwind from these areas to manage and control exposure of community to dust and odors.			
Land Acquisition and Livelihood Restoration	ESS5 Objectives of ESS5 are: To avoid involuntary resettlement or when unavoidable, minimize involuntary resettlement by exploring project design alternatives. To avoid forced eviction. To mitigate unavoidable adverse social and economic impacts from land acquisition or	The Constitution of Lebanon establishes the right to land ownership, and the right of the State to eminent domain. Lebanese Expropriation Law (Law 58/1991 and its amendments)	There is potential for land acquisition for the execution of sub-projects, and for land use restrictions to happen with impact on livelihoods. An RF has been prepared to guide RAPs, LAPs and LRPs as needed. The Lebanese Expropriation Law does not tackle many of the aspects covered in ESS5 (cut-off date, 'census', socio-economic survey, consultation with project affected people, monitoring and reporting, eligibility of those who do not have formal legal rights to land, resettlement assistance, compensation for loss of income, in-kind compensation, grievance mechanism ...). Therefore,	CDR PCU

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	restrictions on land use by: (a) providing timely compensation for loss of assets at replacement cost and (b) assisting displaced persons in their efforts to improve, or at least restore, their livelihoods and living standards, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher. To improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure. To conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant. To ensure that resettlement activities are planned and		requirements of ESS5 shall apply given that they are more comprehensive and stringent. In cases of land use restrictions, or restriction of access to resources, livelihood restoration plans will be prepared. Detailed gap analysis can be found in the Resettlement Framework prepared for the project.	

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	implemented with appropriate disclosure of information, meaningful consultation, and the informed participation of those affected The risks and impacts related to the permanent or temporary physical and economic displacement of project-affected persons across various tenure arrangements shall be assessed and evaluated. The safeguard upholds the avoidance of involuntary resettlement, and for instances wherein it cannot be avoided, measures to minimize and mitigate the adverse impacts to the displaced shall be established.			
Stakeholder Engagement	ESS1: As part of the information disclosure, the findings of the E&S assessment of high-risk and substantial risk projects shall be provided prior to appraisal.	Decree 8633 (EIA) – Article 12 Public Access to Information Law	Lebanese legislation does not mandate disclosure of IEE and EIA studies as do the WB requirements. The EIA decree requires conducting at least one public consultation meeting during the EIA scoping phase, and possibly a second one to present the outcomes of the EIA. While no public consultation is required for projects requiring	CDRPCU, MOE, Municipalities / Unions of Municipalities

Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
	ESS10: Meaningful engagement and consultation of stakeholders must be conducted across all stages of the project cycle, thus ensuring that timely, relevant, understandable information is provided to all the identified project-affected parties. Specific measures for the identified PAPs have been identified in a separate Stakeholder Engagement Plan.	Decree 8633 (EIA) – Article 7 EIA Scoping stipulates: (2) On advising the project owner that his project requires an EIA study, the MOE will require that he informs the parties involved, identified by the MOE based on the list contained in Annex 5 of the Decree in coordination with the project owner. (3) Once advised, the municipality (or the governor or commissioner in case there are no municipalities) where the project will be located, should immediately advise the project to inform the public. The advertisement should be placed on a public bulletin board and at the location of the project for a period of 15 days. The advertisement should include information that the project requires an EIA study and seeking feedback from the public. The municipality will inform the Ministry of Environment of the commencement date of the advertisement. If the municipality is late in publishing the advertisement, the MOE can order placing adhesive advertisements by the	an IEE. WB ESS10 mandates the preparation of a Stakeholder Engagement Plan (SEP) in addition to the ESMF/ ESIA/ ESMF to ensure sustained stakeholder engagement, and appropriate disclosure of information. So for projects requiring an IEE, public consultation shall be conducted to meet ESMF requirements. SEPs for sub-project activities must be developed, disclosed and implemented, consistent with the ESMF and ESS10. E&S instruments shall be prepared in line with relevant ESS, approved by the WB, and disclosed on the websites of relevant authorities and the WB. For the sub-projects involving restriction of access to land or resources, Livelihood Restoration Plans (LRPs), with meaningful consultation with affected persons in accordance with ESS5 shall be prepared, approved and disclosed. Specific attention will be paid to women and children PAPs to develop suitable measures in line with ESF on the basis of social baseline studies for each of the applicable sub-projects. For the sub-projects involving land acquisition, a resettlement plan shall be prepared, approved and disclosed), with meaningful consultation with affected persons as well.	

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		mayor or other public officials. (4) The Ministry of Environment will give the public a chance to provide feedback to the Ministry or the official department concerned within one month from the date of the advertisement publication. All remarks and feedback will be communicated to the project owner after being sorted out and evaluated during the review of the EIA report, and after the Ministry of Environment declares its position in accordance with Article 10 of the decree. (5) The project owner shall submit to the Ministry of Environment a report pertaining to the EIA scoping of the project including attachments of the remarks communicated to him, all incoming comments, the original minutes of public dialogue meetings or the minutes of bilateral meetings with the parties involved.		

Item	Applicable WB Policy	Lebanon Relevant Policy	Policy Gaps Identified and Actions Suggested	Responsible Party
Vulnerable Groups	ESS1: Environmental and social assessment must include adverse risks and impacts that may disproportionately affect certain groups, especially the disadvantaged and vulnerable. As necessary, separate consultation to identify the risks, impacts, and specific needs of these groups will be arranged. (ESS-1 Par 28-29; ESS-1 Guidance Notes GN 28.3-29.1)	No special provisions for vulnerable groups consideration are made in the EIA Decree.	Since Lebanese legislation does not cover specific requirements for vulnerable groups or consultation with them, WB ESS shall prevail. The ESMP/ESIA of the sub-projects involving vulnerable groups which may be impacted will include livelihood restoration and improvement programs for affected persons. Specific attention will be paid to women, elderly, children and displaced populations to develop suitable measures in line with ESF on the basis of social baseline studies for each of the applicable sub-projects. Customized focus group discussions or consultations to address the needs of each group shall be held as needed.	CDRPCU, MOE
	ESS10: Meaningful engagement and consultation of stakeholders must be conducted across all stages of the project cycle, thus ensuring that timely, relevant, understandable information is provided to all the identified project-affected parties. The Borrower will identify those project-affected parties (individuals or groups) who, because of their particular circumstances, may be disadvantaged or vulnerable. Based on this identification, the	No special provisions for Disadvantaged or Vulnerable Individuals or Groups are made in the EIA Decree.	In the absence of such provisions in Lebanese legislation, all instruments to be prepared shall follow the WB ESS1 and ESS10 that are more stringent.	CDRPCU, MOE

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	Borrower will further identify individuals or groups who may have different concerns and priorities about project impacts, mitigation mechanisms, and benefits, and who may require different, or separate, forms of engagement. An adequate level of detail will be included in the stakeholder identification and analysis so as to determine the level of communication that is appropriate for the project. Where applicable, the SEP to be developed will include differentiated measures to allow the effective participation of those identified as disadvantaged or vulnerable. Dedicated approaches and an increased level of resources may be needed for communication with such differently affected groups so that they can obtain the information they need regarding the issues that will potentially affect them.			

