

3. ENVIRONMENTAL AND SOCIAL MANAGEMENT MECHANISMS AND PROCEDURES

3.1 ENVIRONMENTAL AND SOCIAL IMPACT 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.

Though the project will reduce pollution and protect and improve the environment, 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.

Since the subprojects need to be determined during the implementation process, this framework document only makes a qualitative analysis of environmental and social risks and impacts based on the existing preliminary suggestions of the project. Detailed analysis, assessment and rating of potential adverse environmental and social risks will be undertaken under subcomponent-specific environmental and social due diligence.

3.1.1.1 Environmental Risks and Impacts at the Construction/Rehabilitation phase

The support provided to the agri-food sector of the GATE project components will consist of several activities that entail impacts on the natural and social environment. Component 3 will not have direct negative environmental and social impacts since its activities mainly consist of soft activities such as financing, capacity building and technical assistance activities and they do not involve any physical engineering activities.

The main construction and rehabilitation activities and associated risks per sub-component are listed in Table 3-1.

Table 3-1 Main Construction and Rehabilitation Activities and Associated Risks

Component	Activity	Associated Risks
Sub-component 1.1	✓ Climate smart matching grants for group of farmers and SMEs that include the installation of solar panels, small scale processing units, advanced irrigation systems, energy efficient processing equipment, greenhouses, storage and cold storage, and agricultural machinery, food quality and safety equipment and other investments to improve agro-logistics, marketing, and sales.	✓ risks to health and safety of workers and community while constructing infrastructure works ✓ risk of limited noise, dust, and air emissions as part of construction of infrastructure works ✓ solid waste and wastewater generation from construction of infrastructure works, and related impacts on soil and water quality ✓ Soil erosion from exposed land surfaces caused by vegetation clearing ✓ Soil compaction and loss of permeability as a result of site leveling, excavation and compaction activities ✓ Loss or destruction of habitat; ✓ Possible impacts on ecosystems if the new facilities are constructed on Greenfields ✓ Potential for forest fires from construction or workers' activities ✓ Risk of encountering chance finds during any excavation works
Sub-component 1.2	✓ The (support to Agrifood and Agritourism MSMEs and producer associations) investments that will be funded under this component are related to climate-responsive energy provision and resource-efficient production infrastructure and systems, modern machinery and equipment, quality and certification related investments that will increase productivity.	✓ risks to health and safety of workers and community while constructing infrastructure works ✓ risk of limited noise, dust, and air emissions as part of construction of infrastructure works ✓ solid waste and wastewater generation from construction of infrastructure works, and related impacts on soil and water quality

LEBANON GREEN AGRICULTURE TRANSFORMATION FOR ECONOMIC RECOVERY (GATE)

ESMF

Component	Activity	Associated Risks
		✓ Soil erosion from exposed land surfaces caused by vegetation clearing ✓ Soil compaction and loss of permeability as a result of site leveling, excavation and compaction activities ✓ Loss or destruction of habitat; ✓ Possible impacts on ecosystems if the new facilities are constructed on Greenfields ✓ Potential for forest fires from construction or workers' activities ✓ Risk of encountering chance finds during any excavation works
Sub-Component 2.2	✓ Energy efficient upgrading and rehabilitation of public irrigation systems; ✓ Construction of hill lakes and other types of small to medium water supply infrastructure and services ✓ Construction or rehabilitation of retaining walls (as part of terracing); ✓ Construction or rehabilitation of Concrete water reservoirs, other types of water supply infrastructure and services (rehabilitation of Al-Qasimia - Ras Al-Ain irrigation project, rehabilitation and completion of the 45 km irrigation network serving the Saida-Jezine irrigation project, construction of secondary irrigation canals for Canal 800); ✓ Construction or rehabilitation of rural feeder roads; ✓ Development of local agricultural markets; ✓ Optimization of the operation of existing wastewater treatment plants (including sludge management and wastewater re-use) through rehabilitation and expansion activities (rehabilitation and expansion of the Iqat wastewater treatment plant, Charkieh WWTP, extension of WW systems in the Upper Litani River Basin)	✓ risk on public safety and ecosystem services from the construction and rehabilitation of infrastructure (substantial) ✓ risks to health and safety of workers and community while constructing infrastructure works ✓ risk of limited noise, dust, and air emissions as part of construction of infrastructure works, and ✓ possible impacts on ecosystems if the new WWTPs are being constructed on Greenfields. ✓ solid waste and wastewater generation from construction of infrastructure works, and related impacts on soil and water quality ✓ Soil erosion from exposed land surfaces caused by vegetation clearing ✓ Soil compaction and loss of permeability as a result of site leveling, excavation and compaction activities

LEBANON GREEN AGRICULTURE FOOD TRANSFORMATION FOR ECONOMIC RECOVERY (GATE)

ESMF

Component	Activity	Associated Risks
	✓ Optimization of the operation of the existing solid waste management systems including composting and biogas production from manure to reduce soil and water pollution (system rehabilitation).	✓ Loss or destruction of habitat; ✓ Potential for forest fires from construction or workers' activities ✓ Risk of encountering chance finds during any excavation works

Proposed mitigation measures for the above-mentioned risks and impacts during construction and rehabilitation activities on the sensitive receptors are listed in Table 3-2

Table 3-2 Environmental Risks and Mitigation Measures – Construction/Rehabilitation Phase

Impact	Description	Mitigation Measures
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).	✓ Stabilize the exposed surfaces ✓ Minimize activities that suspend dust particles ✓ Apply water to the areas to be excavated, loading and unloading areas and unpaved roads ✓ Develop a wheel wash at the entrance to public roads or exit of the construction site ✓ Implement speed controls on-site ✓ Maintain enough loading capacity of lorries and barges to avoid spillage ✓ Cover soil stockpiles with erosion control blankets ✓ Use hoarding to avoid wind-blown dust ✓ Apply good construction practices
Noise	Construction and rehabilitation activities can cause temporary noise pollution. (under sub-component 1.1, 1.2, 2.2 and 3.2).	Generally, it is expected that the noise will not be high enough to interrupt sleep or disrupt normal activity. It is anticipated that construction activities will not be operational during the late hours; therefore, the impact on evening averages of ambient noise will not be applicable. ✓ Optimize the use of machines and noisy equipment, and ensure their regular maintenance ✓ In case of receiving complaints from neighboring areas regarding noisy operations, acoustic barriers can be placed and noise levels at complaining receptors must be regularly checked for compliance with allowable limits ✓ Construction works should be stopped at night time ✓ Disseminate and properly implement the GM ✓ Limit construction hours (day times)
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).	✓ Minimize as much as possible the clearing of vegetation ✓ Undertake soil control measures, i.e. planting of grasses to stabilize embankments ✓ Perform the excavations, compaction and grading activities according to international standards (i.e. ASTM Soil Compaction Standards), in order to minimize expected disturbance during the construction phase. ✓ Manage fixed routes for equipment movement and avoid multiple routes. Upon completion, excavated soil or rock can be used in the backfilling process or transported to another location. ✓ Ensure proper management of domestic and construction and demolition waste (CDW), including reuse of CDW where possible/ feasible ✓ Develop a spill response plan on which staff should be trained
Biodiversity	Loss or destruction of habitat; Possible impacts on ecosystems if the new WWTFs are constructed on Greenfields Potential for forest fires from construction or workers' activities (under sub-component 1.1, 1.2, 2.2 and 3.2).	✓ Avoid adverse impacts on biodiversity where possible; if avoidance is not possible, reduce the impacts to the lowest magnitude possible through mitigation, and compensate for the remaining impacts (e.g., avoid clearance of trees; if not possible, reduce the number of trees to be cleared and replant the same number of native trees as those that have been cleared on site or in another location if not feasible). Mitigation measures include: ✓ Consider relocating trees whenever feasible ✓ Replace lost vegetation or trees with native species ✓ Minimize project footprint to control impact on ecosystems,

Impact	Description	Mitigation Measures
		- and adopt proper waste and effluent management plans in compliance with applicable legislation, standards and guidelines. ✓ Proper management of waste, prohibition of littering and of lighting fires near forests and woodlands
Waste management	Construction and rehabilitation activities will lead to the generation of wastes	✓ Prepare Construction waste management plans as part of ESIA/ESMPs ✓ Segregate construction wastes and reuse it where feasible ✓ Ensure construction wastes that cannot be reused are collected and disposed of in appropriate facilities
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).	✓ In case of chance finds, do not disturb further until an assessment by competent professionals is made and actions are identified; ✓ notify relevant authorities of found objects or sites by cultural heritage experts; ✓ fence-off the area of finds or sites to avoid further disturbance; ✓ conduct an assessment of found objects or sites by cultural heritage experts and Directorate General of Antiquities (DGA) ✓ resume works only following clearance from DGA
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).	✓ Surround the construction areas with scaffolding nets; ✓ Provide sufficient lighting; ✓ Prohibit keeping trenches unnecessarily open and install barriers to avoid falling and tripping; ✓ Fence off all construction sites to prevent unauthorized access; ✓ Keep machinery and vehicles passages clear; ✓ Implement a speed limit of 20 km/h for vehicles arriving to and leaving the construction sites; ✓ Provide workers with the appropriate PPE (goggles, dust masks, helmets, hearing protection equipment, proper clothing, safety boots, etc.) and enforce their use; ✓ Maintain the PPE (cleaning when dirty and replacement when damaged or worn out); ✓ Ensure the availability of adequate loading and unloading space; ✓ Prohibit smoking and littering; ✓ Ensure that an easily accessible first-aid station is provided on-site; ✓ Post adequate signs at visible locations throughout the construction area indicating type of operation, potential risks, and appropriate medical/emergency action response; ✓ Perform staff training about the fundamentals of occupational health and safety procedures, and about handling hazardous material containers and related wastes; and ✓ Implement the required air emissions and noise mitigation measures listed above.

3.1.1.2 Environmental Risks and Impacts - Operation Phase

Table 3-3 and Table 3-4 present the main expected positive impacts, risks and mitigation measures associated with the different project sub-components.

Table 3-3 Positive Impacts and Environmental Risks– Operation Phase

Sub-component	Associated Positive Impacts	Associated Risks
Sub-component 1.1	✓ Use of renewable energy technologies, and associated reduction in energy consumption, air and GHG emissions, and energy costs	✓ Risk of unsafe farming activities, overuse of pesticides by some farmers leading to food safety risks; ✓ Risk of inadequate management of agriculture waste that could lead to wild fires; ✓ Risk of discharging drainage water, contributing to the contamination of water courses; ✓ Risk of unregulated expansion of agriculture lands by smallholder farmers when they use the matching grants; ✓ Risk of unregulated abstraction of irrigation water leading to water depletion; ✓ Risk of wild fires due to agricultural waste burning; ✓ Risk of loss of biodiversity (species and habitats) as a result of the above risks
Sub-component 1.2	✓ Use of renewable energy technologies, and associated reduction in energy consumption, air and GHG emissions, and energy costs	✓ Risk of unsafe farming activities, overuse of pesticides by some farmers leading to food safety risks ✓ Risk of unregulated abstraction (through water lifting pumps) of irrigation water, which might affect groundwater aquifers and contribute to water depletion ✓ risks and impacts related to the operation of SMEs, including issues related to waste management, air emissions and workers' health and safety ✓ Risk of wild fires due to agricultural waste burning ✓ Risk of loss of biodiversity (species and habitats) as a result of the above risks
Sub-component 2.2	✓ optimizing agriculture inputs ✓ minimizing the generation of agriculture waste through better management of the value chain; ✓ improving wastewater treatment and waste management; ✓ reuse of treated wastewater in the agriculture sector at the level of existing secondary or tertiary WWTP, leading to water conservation; ✓ Efficient use of available water resources, and increased irrigation water availability as a result of hill	✓ Risk of unregulated abstraction (water lifting pumps) of irrigation water, which might affect groundwater aquifers and contribute to water depletion ✓ risks to community health and safety from possible use of polluted irrigation water affecting food safety; ✓ Risk of water and soil pollution from effluents and indiscriminate disposal of sludge from WWTPs, and from landfills operation (in case of leachate leakage or uncontrolled operation); and ✓ Risk of odor emissions from the operation of rehabilitated solid waste and wastewater treatment plants and landfills, and improper storage/ disposal of sludge. Risk of

Sub-component	Associated Positive Impacts	Associated Risks
	lakes construction and treated wastewater reuse; ✓ The project will have an indirect positive impact on air, soil and water quality since the rehabilitated and improved wastewater and solid waste management facilities operation will lead to decreasing the likelihood of open burning of waste, the release of air emissions and leachate from uncontrolled dumpsites, and sewage disposal into surface water streams. ✓ As the majority of eligible investments are labor-intensive, they would contribute to job creation in rural areas, benefiting local and displaced communities.	deforestation that might result from the construction/ rehabilitation of feeder roads ✓ Risk of biodiversity loss as a result of deforestation, uncontrolled operation of waste and wastewater management facilities, and other forms of pollution.
Sub-component 3.1	✓ improving the use of pesticides through improved digitized extension; ✓ introducing organic farming and Biological Pest Control (BPC), which will minimize the use of agrichemicals and enhance food safety and marketability, thus increasing exports; ✓ Reduced GHG emissions due to improved crops quality and productivity and to renewable energy adoption, ✓ introducing circular economy and green procurement ✓ On the food safety front, the project will improve the monitoring capacity of MOA and MOET and introduce legal-regulatory and policy changes related to harmonization of national standards with international ones	Risks related to e-waste management and energy consumption Risk of biodiversity loss as a result of unsound e-waste disposal
Sub-component 3.2	positive impact on biodiversity and soil/ groundwater quality due to the usage of clean irrigation water	Risk of improper waste and effluent disposal from laboratories and testing facilities operation activities, and associated negative impacts on soil, water and air quality and biodiversity
Sub-component 3.3	✓ Improving agri-food export opportunities ✓ Improving animal health (and food safety) through vaccination ✓ Improved plant and animal product quality and safety	risks related to the downstream activities recommended by technical assistance and capacity building activities

Sub-component	Associated Positive Impacts	Associated Risks
	✓ Improved crop resilience and adaptability to climate change, reduced crop losses	

Table 3-4 Environmental Risks and Mitigation Measures – Operation Phase

Impact	Description	Mitigation Measures
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)	✓ Enclose leachate drains to reduce the emission of odors. ✓ Minimize the amount of water added to compost (e.g., by covering compost material) to avoid anaerobic conditions that can cause hydrogen sulfide odors if the compost mixture contains sulfur-containing materials. ✓ Equip WWTPs and SWM facilities with biofilters where needed to reduce odor emissions; ✓ Include landfill gas collection system designed and operated in accordance with applicable national requirements and recognized international standards, including recovery and pre-use processing or thermal destruction through an efficient flaring facility; prevent condensation from accumulating in extraction systems by arranging the pipe work to fall to a removal point such as a knock-out pot. ✓ Use landfill gas as fuel if practical, or treat before discharge ✓ Dispose of odorous sludge in covered trenches ✓ Aerate leachate storage areas ✓ Avoid open burning for land preparation, weed control, and post-harvest treatments. Where burning is unavoidable, potential impacts should be identified and weather conditions monitored to schedule burning to minimize impacts. ✓ Prohibit burning of pesticide-treated agricultural wastes and by-products (e.g., pesticide containers) to avoid unintended emissions of persistent organic pollutants (POPs). ✓ Reduce the risk of fire by reducing the build-up of potential groundcover fuel sources and controlling weeds and invasive species. Where controlled burns of residues are necessary, ensure optimal conditions for the low risk of spread and low impact on existing air quality. ✓ Repurposing residues as ground cover, soil amendments (that is, mulch or compost), animal feed, briquettes for heating, construction materials, paper products,

Impact	Description	Mitigation Measures
		bioplastics, and other artifacts in order to reduce as much as possible open burning practices.
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);	✓ Ensure availability of water quantities and qualities suitable for new infrastructure projects ✓ Increase irrigation efficiency by employing the best technology available ✓ Promote best agricultural practices to reduce water loss by evaporation ✓ When possible reuse the drainage water for irrigation purposes ✓ Disposal of drainage water in natural depressions or specially designed unlined basins. The impounded water dissipates through evaporation and inadvertent seepage losses, and deposits salts and trace elements. ✓ Minimize leakages of effluent and/or sludge to surface and groundwater through regular inspection of connections between WWTP pipes. ✓ Use water-tight tanks for the transportation of sludge. ✓ Provide impermeable flooring underneath sludge holding tanks with a drain to contain any potential spill/overflow and prevent soil and water contamination; ✓ Provide proper leachate collection, treatment and disposal at SWM facilities, and monitor adequate operation and control of all SWM steps; ✓ Develop a waste and effluent management plan to be followed by lab operators and workers, SMEs and agri-tourism activities/ establishments, and ensure proper disposal of chemicals. ✓ Proper storage and handling of chemicals ✓ Develop a training and awareness program for farmers on the amounts and conditions for applying fertilizers and pesticides to prevent soil and water pollution; ✓ Promote Integrated Pest Management practices to control pests ✓ Promote and monitor sorting of e-waste and its proper management (e.g., handing it to authorized parties that export it)

Impact	Description	Mitigation Measures
Biodiversity	✓ Population decline and mortality in fauna species, especially reptiles - Reducing environmental flows necessary for aquatic biodiversity	✓ Avoid adverse impacts on biodiversity where possible; if avoidance is not possible, reduce the impacts to the lowest magnitude possible through mitigation, and compensate for the remaining impacts (e.g., avoid clearance of trees; if not possible, reduce the number of trees to be cleared and replant the same number of native trees as those that have been cleared on site or in another location if not feasible). ✓ Avoidance of introduction of invasive/Exotic species and degradation of habitats; ✓ Plant native vegetation species where feasible, especially where vegetation clearance has taken place; ✓ Adequately select and apply pesticides and monitor the weather when applying pesticides and avoid very hot or windy days. ✓ Introduction of measures for proper management of agrichemicals by smallholder farmers, measures for agriculture/agritourism waste management ✓ The Pest Management Plan (PMP) annexed as Annex G will need to be adopted by smallholder farmers ✓ Control the conversion of woodland and forests into agricultural land, and provide incentives for preventing such conversion

3.1.1.3 Social Risks and Impacts during construction/ Rehabilitation phase

During the construction/ rehabilitation phase of the project, the main positive social impact would be rural employment and reciprocated income generation.

Under sub-component 1.1, 1.2 and 2.2 new jobs will be created for the skilled and unskilled labour in the targeted communities. Unskilled labour will be sourced from the local communities. Indirect employment will be generated in the form of suppliers and other forms of sub-contracted works that will be required for the construction/rehabilitation phase of the project components. Women, youth and displaced populations will also have an opportunity to secure employment.

The risks and negative impacts with their respective mitigation measures are listed in **Error! Reference source not found..**

Table 3-5 Social Risks and Mitigation Measures – Construction/Rehabilitation Phase

Impact	Description	Mitigation Measures
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 displacement and/or assets loss;	The preparation of a resettlement action plan (RAP) with relevant consultations to fully compensate for lost/damaged property/ livelihoods, resettle the displaced persons and restore their livelihoods and in line with ESS5 requirements and the Resettlement Framework
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..	✓ Supervision of construction/ rehabilitation works and clear obligations. ✓ Regular information on progress and Environmental and Social compliance for local communities ✓ Establishing a clear grievance redress mechanism, publicizing it and making it easily accessible ✓ Monitor labor management procedures implementation ✓ Communicate information about the hours of construction with the local population ✓ Implementation of mitigation measures for dust, air emissions and noise (Table 3-2) ✓ Limit speed on the construction sites to 20 km/h unless otherwise advised, and adopt careful logistical and route planning; ✓ Position any necessary traffic diversion signs and devices correctly. Signs and devices should be clearly displayed in the Arabic and English languages. Temporary traffic signals and signs should be employed to warn of hazards and provide directions, especially on narrow one-lane roads; ✓ Coordinate with the concerned municipalities with respect to the planned road blockages, detours or diversion, and the scheduling of the construction works including material delivery, waste transfer, truck movement and other machinery operations in order to limit the disruption to the neighborhood from traffic inconveniences and traffic flow and to minimize noise and dust generation; ✓ Follow a specific schedule for transport to avoid interference with peak traffic hours and minimize disturbance/delay to commuters at rush hours on the roads leading to the Project construction sites; and ✓ Fill up all holes and trenches, and level all mounds and heaps of earth, and exposed surface reinstatement, which have been excavated or made in connection with the works immediately upon completion of any part of the works.
Restricted	In specific cases, it might lead to	✓ Adopt the Resettlement Framework as per

Impact	Description	Mitigation Measures
access to property	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.	the requirements of ESS5, and specify the requirements for preparation of Resettlement Plans for the sub-project investments ✓ Once the subproject investments are known, and in the event of any restrictions on land use and land acquisitions, the PCU should ensure the preparation of Resettlement Plans and the implementation of the grievance redress mechanism developed in order to fairly compensate PAPs and address all complaints and grievances within an acceptable period of time and to the satisfaction of the plot owners and in line with ESS5; ✓ Preserve access to ecosystem services during works, or compensate PAPs in case such services cannot be preserved ✓ Ensure continuous engagement with the PAPs in line with ESS5 and ESS10 requirements
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.	✓ Supervise application of OHS regulations and code of conduct on SEA/SH (a SEA/SH Prevention and Response plan will be prepared by the PCU as per the provisions of the ESCP) ✓ Contractors should have a Code of Conduct Policy that all hired labors should sign and follow the employee code of conduct policy; ✓ Ensure the code of conduct is understood and signed by all identified project workers with clear communication of zero tolerance to SEA/SH according to the World Bank requirements ✓ Public hearings and meaningful consultations. ✓ Restriction from access to the construction site ✓ Establishing a clear grievance redress system ✓ Put in place separate referral pathways as part of the project GM for GBV, SEA/SH grievances, with confidentiality and survivor centric approach, and ensure that the GM is widely disseminated to reach targeted rural regions of the project. ✓ Ensure application of the World Bank Good Practice Note on ESF for IPF Operations – Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works ✓ Prepare a SEA/SH action plan before commencement of project activities in line with the provisions of the ESCP ✓ All hired laborers should undergo mandatory training that covers sexual abuse and exploitation/harassment, and Gender-Based Violence.

Impact	Description	Mitigation Measures
		✓ Reporting allegations of sexual abuse and exploitation/harassment and Gender-Based violence through confidential reporting tools. All allegations should be investigated, and if these allegations are proven, strict disciplinary measures should be promptly taken. ✓ Assigned Contractors are bound to comply with laws prohibiting child labor and shall follow all applicable laws that recognize children's rights and minimum age of employment. ✓ Zero tolerance on child labour, maintaining a record of labor registry and age verification, and monitoring compliance with minimum age requirements ✓ Setting up, disseminating and properly implementing a labour specific GM ✓ Informing all workers of the internal GM for reporting any problems or complaints they might have, and ensuring it is properly implemented. ✓ Conducting rigorous pre-employment checks of all candidates to avoid hiring any previous offenders. ✓ Clear criteria for allocation should be adopted accounting for the ratio imposed and monitor adherence to the minimum percentage of women beneficiaries from the project; ✓ Conducting widespread communication and additional consultations where needed with women groups ✓ Consider and support women's equal participation in and benefit from the Project.
Inadequate stakeholder engagement	Risk of weak and inadequate stakeholder engagement through exclusion of vulnerable groups	✓ A detailed stakeholder mapping, presentation of stakeholder activities, roles, responsibilities, and budget for their implementation are available in the Stakeholder Engagement Plan (SEP) ✓ SEP ensures that these groups are not disproportionately affected and have equal opportunity in partaking in project benefits
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	✓ Widely disseminate the GM through various channels (media, social media, through concerned municipalities, during consultations...) to reach targeted rural regions of the project with clear disclosure of contact information and procedures for registering grievances.

3.1.1.4 Social Risks and Impacts during Operation phase

The key positive social impacts of the project operation phase are listed in Table 3-6.

Table 3-6 Positive Social Impacts of the Project Operation Phase

Subcomponent	Positive Social Impact
Sub-component 1.1 and 1.2	• The project will improve access to finance for smallholder farmers and high growth producer associations and agribusiness SMEs in the agri-food value chain and agri-tourism. • Increased employment in farms, agri-business and agri-tourism enterprises benefiting from the project support, disaggregated by women, youth and displaced populations. This will in turn result in reduced climate-induced youth out-migration from rural areas by creating income opportunities and providing financial means for adaptation. • Business plans from women and youth or vulnerable citizens will be given priority in the selection process, thus ensuring an inclusive approach. • Under component 1, the project will finance farmers and SMEs in agriculture-related entrepreneurial activities to help them improve their productivity levels and crops safety and quality. This implies that if production is improved, there will be a decrease in prices, hence making it affordable for all the members within the community to have access to food. • Crops quality will also improve through the modernization of processing and packaging facilities, and the Lebanese consumers will benefit from safer and better-quality products. • The project is expected to improve the quality and sustainability of farmers' livelihood by providing financing access and support primarily to poor vulnerable farmers with focus on women, youth and displaced populations in lagging areas. • The improvement in agri-food value chains productivity will raise the income for the rural poor above the poverty line. This is an indirect impact that will be felt after many years. • The project shall finance climate smart and sustainable agri-tourism activities and businesses in the project designated areas to ensure a high growth of this sector. Agri-tourism in rural areas will help revitalize the local economy and preserve agricultural heritage, in addition to reducing out-migration from rural areas.
Sub-component 3.1	The project will improve access to critical services like water and energy that facilitate climate smart agricultural activities in lagging rural areas through financing projects such as installation of solar panels, solar powered pumps, construction or rehabilitation of retaining walls, concrete water reservoirs, rehabilitation and modernization of community-level irrigation canals, rural roads rehabilitation, wastewater treatment installations, and improving waste management to limit contamination of irrigation water and agricultural lands.
Sub-component 3.1 and 3.2	• Strengthening food safety and quality shall be achieved through clean irrigation water and proper monitoring of contaminants in food products. • The creation of the digital farmer registry and the digitalization of extension services will improve the access of smallholder farmers and SMEs to data pertaining to sustainable farming practices and climate smart agriculture (CSA) technologies that help improve productivity and over the long term reduce input costs and build climate resilient agri-food value chains.

Subcomponent	Positive Social Impact
	It will also facilitate access to market information on climate smart and organic agri-food value chains. Public services will be digitized in support of food safety in agri-food value chains in lagging rural areas. The digital platform will link producers to consumers.
Sub-component 3.2	Enhanced Capacity and Empowerment of beneficiaries in proper application of chemicals (fertilizers, pesticides) and farming practices, resulting in the protection of public health and the environment, reduction of crop vulnerability to invasive pests and diseases
Sub-component 3.3	- The project will facilitate the access of smallholder farmers to the market by supporting them to promote their horizontal- linkages with other smallholders and vertical linkages with buyers/ offtakers through commercial agreements, thus enhancing their participation in value addition. - The project will facilitate access to international exports and improve export and marketing mechanisms.

Table 3-7 presents the social risks and mitigation measures during the operation phase.

Table 3-7 Social Risks and Mitigation Measures - Operation Phase

Impact	Description	Mitigation Measures
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.	✓ Effective and inclusive consultations with stakeholders including the most vulnerable identified groups to communicate the project details and components, to enhance transparency on project related information and selection criteria for job creation opportunities and business plans, ✓ Conducting widespread communication and additional consultations where needed with women groups ✓ Ensure systematic implementation of the SEP. This document must be updated as required to reflect any changes as lessons are learned during implementation ✓ Developing criteria for the selection of beneficiaries and for inclusion of vulnerable groups
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	✓ Irrigation water quality to comply with national standards and the general EHS guidelines, as well as WHO Water Guidelines applicable to irrigation water quality Adopt a proper water management plan to ensure water sustainability and availability
SEA/SH, OHS risks	✓ Influx of workers may induce risks of SEA/SH under subcomponent 1.1, 1.2 and	✓ Supervise application of OHS regulations and code of conduct on SEA/SH

Impact	Description	Mitigation Measures
	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 ✓ Forced labour and child labour associated with primary supply workers for solar panels under subcomponent 1.1	✓ Establishing a clear grievance redress system and monitoring its implementation ✓ Awareness promotion relating to GBV, SEA and SH ✓ Ensure that codes of conduct are signed and understood by all identified project workers with clear communication of zero tolerance to SEA/SH according to the national legislation and World Bank requirements ✓ Put in place referral pathways as part of the project GM for GBV grievances, with confidentiality and survivor centric approach, and ensure that the GM is widely disseminated to reach targeted rural regions of the project. ✓ Zero tolerance on child labour, ensuring age verification upon contracting workers, and monitoring compliance with minimum age requirements ✓ Setting up, disseminating and properly implementing a labour specific GM (ref. LMP) ✓ Based on the requirement for every component, primary supply workers will be recruited by the suppliers as required. It will be ensured (and monitored periodically by the CDR PCU) that no children are recruited and supplied as workers. Furthermore, it will be monitored that workers are not subject to 'forced labour' in any manner. The CDR PCU will be responsible for making sure that these standards are strictly followed. If any deviation is identified, the CDR PCU will take action as prescribed in the contract/ agreement following the LMP.

3.2 RISK CLASSIFICATION AND IMPACT MANAGEMENT FOR THE SUB-PROJECTS

According to the preliminary qualitative analysis, the site activities may cause a range of environmental and social risks and adverse impacts on the population and environment as described in the previous section.

For Components 1 and 2, the activities related to improving basic service delivery and common-user community infrastructure, and modernizing support services to improve the enabling environment for agri-food sector development will support subprojects. These subprojects will need to undergo detailed environmental and social impact analysis.

The anticipated subprojects are screened to determine the significance of associated environmental and social risks (Annex A). The screening is undertaken in line with WB ESF Environmental and Social Risk Classification rating risks as High, Substantial, Moderate and Low Risks, based on a range of relevant factors which may include:

- Type, location, sensitivity, and scale of the project;
- Nature and magnitude of the potential environmental and social risks and impacts;
- Capacity and commitment of the implementing agencies to manage the environmental and social risks and impacts consistent with the ESF;
- Legal and institutional considerations;
- Nature of the mitigation and technology being proposed;
- Governance structures and legislation; and
- Considerations relating to stability, conflict or security.

Moreover, MoE will classify the proposed sub-project as either requiring an "Initial Environmental Examination (IEE)" or an "Environmental Impact Assessment (EIA)" as per the requirements of the National EIA Decree 8633.

The EIA Decree 8633/2012 describes the steps to be undertaken to prepare and approve an EIA (see Annex B). It also provides an outline of the information required to be presented in the EIA report (see Annex C and Annex D). Decision 261/1 of 2015 provides guidelines for the review of EIA scoping reports and EIA reports. Appendices 6 and 8 of the EIA Decree present the content required to be presented in IEE and EIA reports.

After screening the site-specific activities, the corresponding documents will be prepared in accordance with the procedures and requirements specified in this framework during the project implementation process. As per the EIA decree, an IEE study does not require stakeholder consultation. However, if such projects require an ESMP based on screening according to WB ESF, then a public consultation shall be required.

As per the analysis, mitigation measures and environmental and social risks of subprojects envisaged under the Project in the previous chapter, Table 3-8 **Error! Reference source not found.** 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 3-8 are preliminary and will be determined during the preparation of site-specific E&S documentation.

Table 3-8 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	Construction and rehabilitation of	ESIA, ESMP LRP (if triggered)

Risk Rating	Definition	Project Activity	Applicable E&S Tools
	with reliable mitigation and/or compensation measures will be designed.	wastewater infrastructure Operation of large waste management facilities, wastewater treatment plants, major water 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</u> <u>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.	ESMP

Risk Rating	Definition	Project Activity	Applicable E&S Tools
		✓ operation of SMEs (component 1.2), and small holder farming activities	
		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 negligible.	Soft activities (Upgrading the infrastructure of labs and testing facilities) under components 2.1 and 3	E&S screening and inclusion of potential impact as part of the procurement documents

The project will work with municipalities and ministries and help the key agencies in developing and implementing citizen engagement strategies as part of their services. Community and citizen grievance mechanisms will be developed and implemented.

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.

In light of key characteristics of the physical, biological, and socio-economic environment of the potential project sites, which are deemed to be of significance in determining the potential impacts of project activities, the site-specific ESIA/ESMPs will identify and evaluate the following:

- Assessment of the E&S baseline conditions in the target sites;
- Direct and indirect environmental and social impacts likely to arise from project activities;
- Appropriate measures to minimize potential significant environmental and social impacts;
- Analysis of project Alternatives to determine the best way of achieving project objectives while minimizing environmental and social impacts;
- An environmental and social management plan to mitigate environmental and social impacts;
- Cumulative impact assessment, emergency response plans, and risk hazard analysis as applicable;
- Appropriate compensation for impacts that cannot be mitigated;
- Opportunities for stakeholders to register grievances through an adequately functioning GM;
- Feedback from stakeholders to inform project design in inclusive stakeholder engagement opportunities for public benefit throughout the lifetime of the project;

- Institutional arrangements to oversee the proposed project activities including the necessary capacity building program; and,
- A comprehensive monitoring program to evaluate the impacts of project activities.

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. The depth and scope of subproject site-specific environmental and social due diligence will be defined based on the detailed environmental and social screening, and will generally require the preparation of:

- ✓ "Environmental and Social Impact Assessment (ESIA)": With content of identification and assessing the potential environmental and social risks of the proposed project, analyzing the scheme selection, formulating appropriate reduction measures, putting forward management requirements, and follow-up monitoring and reporting arrangements, this form is generally applicable to the subprojects of 'High' and 'Substantial' risk ratings. The ESIA will analyze the site-specific risks and propose appropriate mitigation measures following the Bank issued guidance notes following the selection of sites. This instrument will be mainly used for the construction activities.
- ✓ Environmental and Social Management Plan (ESMP): By putting forward the detailed measures to avoid, mitigate, handle and compensate for the environmental and social impacts, and formulating action plans for implementing these measures, this form is generally applicable to the subprojects of "High", "Substantial" and "Moderate" risk ratings. ESMPs (Annex E) will be prepared for improvement/rehabilitation of existing projects and other activities classified as moderate activities as well as of existing facilities if any, including an environmental audit of these facilities.
- ✓ E&S Audits (ESA) for projects involving optimization or working capital for existing facilities. E&S Audits are performed to ensure that an existing project and its associated facilities are conforming with the World Bank Environmental and Social Standards (ESSs). As a requirement for the World Bank funded projects they identify adverse environmental and social impacts of the project or facility, and propose measures to mitigate these adverse impacts on communities.
- ✓ Pest Management Plan (PMP) to ensure the reduction and mitigation of potential risks caused by pesticides on human health, the environment, and biodiversity. It also promotes Integrated Pest Management (i.e. Biological Pest Control (BPC), crop varieties, agriculture practices, etc.) and the safe use of agricultural pesticides, encourage good agricultural practices, and promote the adoption of sustainable alternative designs to mitigate environmental and social impacts that pest control may have. The WB requires that any pesticide it finances shall be manufactured, packaged, labeled, handled, stored, disposed of, and applied according to standards acceptable to the Bank.

3.3 PREPARATION OF THE DOCUMENTS OF THE SUBPROJECTS' ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

According to the subproject risk classification and the requirements of the corresponding E&S impact assessment document form confirmed by the World Bank, the CDR PCU shall employ qualified environmental and social consultants to prepare the site-specific environmental studies for the subprojects according to the applicable environmental and social standards (ESS) under the ESF of the World Bank and the applicable national regulations. Appointed consultants should be part of the pre-qualification list of environmental consultants in Lebanon.

During the preparation of sub-projects, the CDR PCU needs to review and approve the corresponding environmental and social assessment documents prepared by a pre-qualified firm for the beneficiaries according to the requirements confirmed by the World Bank. During this period, the Project's Stakeholder Engagement Plan, including its Grievance Mechanism (GM) should be updated if needed and must be implemented. Moreover, the GM must be widely disseminated to be accessible to all stakeholders

The World Bank requires that the depth and breadth of environmental and social assessment should match the risk and impact level of the project, and the measures and information release to stakeholders should also be in line with the SEP and consistent with the risk and impact level of the project.

No matter what types of documents are adopted, the environmental and social assessment of all subprojects shall comply with the requirements of the relevant 'Environmental and Social Standards' of the World Bank ESF and the applicable national regulations.

Environmental and social assessment is required to comprehensively assess the E&S risks and impacts in the whole project cycle, including direct, indirect and cumulative impacts.

Based on the accurate project description and environmental and social status information, environmental and social assessment shall assess potential environmental and social risks and impacts, analyze alternative plans to the project, and determine methods to improve project screening, site selection, planning, design and implementation, so as to formulate management and mitigation measures against the adverse environmental and social impacts in accordance with the sequenced order of management measures. As for the cases of pollutant discharge, it is required to take the remaining environmental capacity, present and future land use, important sites of biodiversity in the surrounding region, potential cumulative impacts and impacts of climate change into consideration. According to ESS10 of the World Bank, environmental and social assessment should include the participation of the stakeholders, which is an integral part of the assessment.

Associated facilities will be covered by the ESIA/ESMP process as per the ESS1 and should be in line with the requirements of the national EIA decree 8633/2012.

According to the World Bank's ESS2, the environmental and social assessment is also required to take the relevant risks of child labor, forced labor and serious safety issues of major primary supply workers into account.

3.4 APPROVAL OF ENVIRONMENTAL AND SOCIAL DOCUMENTS

The CDR PCU will arrange for the disclosure and public consultations on subproject-specific ESIA/ESMPs. Upon completion of the public consultations, the consulted draft will be provided to the WB, enclosing detailed minutes of consultations.

The MOE regulates and monitors the EIA Process. MOE is responsible for the following: (i) review and approval of IEE/EIA reports in collaboration with other relevant ministries and (ii) monitoring the ESMP implementation of Project Proponents/Owners throughout the different project phases.

Decree 8633 requires that an IEE or EIA report be submitted to the MOE for review and approval. The IEE or EIA approval takes 60 working days, counted from the date that the MoE officially receives the IEE or EIA report.

Annex B shows the IEE/EIA preparation and approval process. ESMPs prepared for this project will follow the IEE review procedures and timelines.

The World Bank will conduct a review of the subproject-specific ESIA/ESMPs prepared in accordance with the ESMF and relevant ESSs before giving the clearance for disclosure and implementation.

3.5 COMPLIANCE TO THE REQUIREMENTS OF THE SUB-PROJECTS

The incorporation of relevant measures stated in the site specific ESIA/ESMPs into the bidding documents and the contracts will be ensured by the CDR PCU. This will be done to ensure that the contractors can properly incorporate and provide the cost of the required measures and then are subsequently compliant to the relevant requirements, and conduct proper implementation of the actions and measures during the project construction and implementation phases. Relevant requirements of supporting instruments, including the SEP and the LMP, will also be incorporated in the relevant contracts.

3.6 PROCEDURES FOR BUDGETING IMPLEMENTATION, SUPERVISION, AND REPORTING

After the approval of the demonstration subprojects, the CDR PCU shall continuously monitor the environmental and social management performance of the civil works subprojects as an integral part of subproject supervision. The detailed requirements include:

- ✓ For all subprojects under the project, management shall include the review and assessment of the E&S performance of the subprojects. The site-specific ESIA/ESMPs will include (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. This will be for all three (3) aspects (mitigation, monitoring and capacity development).

- ✓ The CDR PCU is required to ensure that the relevant actions of ESCP and the measures coming out of the ESIA's and included in the ESMPs are incorporated into the detailed design, costing and bidding documents and construction contracts, and will be realized in the implementation. The good practice is often that the ESIA company works in collaboration with engineering design once site specific instruments are being prepared to ensure incorporation.
- ✓ The CDR PCU shall guarantee that the subproject participants such as contractors and supervision units establish an organizational structure which meets the requirements of E&S management and arrange special personnel to be responsible for of E&S management. The requirements for specific E&S management tasks and staff shall be reflected in respective TORs.
- ✓ The CDR PCU shall assess the performance in accordance with the requirements of the national laws and regulations applicable to the subproject and the ESMF, ESCP and the E&S requirements of the subproject. The CDR PCU ensures ESF compliance, including having contractors implementing instruments for civil work activities. The assessment of performance is to be carried out during implementation support missions at midterm and at Implementation completion stage or under any circumstances which require an audit. The construction supervision consultancy will also comprise specific ES monitoring and oversight functions.
- ✓ The CDR PCU shall inform the World Bank within 48 hours if it is informed of any environmental and social accidents that may have a significant adverse impact on the workers, the affected communities, and the public or open environment. It is required to provide as much detailed information as possible about the accident, including the measures being taken or to be taken as well as the appropriate information provided by the contractors and regulatory agencies. Subsequently, a report will be provided within one week from the accident and will propose targeting measures to prevent it from happening again.

In addition, the CDR PCU shall track and monitor the implementation of the actions specified in the ESCP and report it in the quarterly E&S progress report, as stated in the ESCP.

3.7 SUB-PROJECTS' COMPLETION AND ASSESSMENT

The environmental and social management performance of the whole process must be reviewed after the implementation of all subprojects. This provides a general overview of the experiences and lessons gathered from the process which would be a basis for the preparation of the completion of the report. The results of implementation of ESF instruments for the completion of each sub-project and project completion will be incorporated in the Project Implementation Completion Report/ICR, which elaborates E&S management lessons learned (good and bad practices), ES performance rating, and capacity of institutions (before and after).

4. CONSULTATION OF STAKEHOLDERS AND SOCIAL MOBILIZATION

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 number of participants in Beqaa-Baalbeck was 89, out of which 27 women (31%); in Akkar 71 participants, out of which 25 women (36%); and in the South 73 participants out of which 21 women (30%). Details are included in Annex F.

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.

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.

The first stakeholder consultation meeting took place on February 15, 2023, for the governorates of Beqaa and Baalbek-Hermel. The main concerns raised were as follows:

- To provide recommendations to encourage organic farming, planting the unused agricultural lands, reducing the use of fertilizers;
- To provide support to the marketing of crops;
- To provide technical assistance on climate-smart agricultural practices;
- To provide support to the agro-industries, constructing hill lakes;
- To identify projects based on participatory approach; and
- To increase awareness among the various stakeholders.

The second stakeholder consultation took place on February 16, 2023 for the governorate of Akkar, and the main issues and comments raised by various stakeholders included the following:

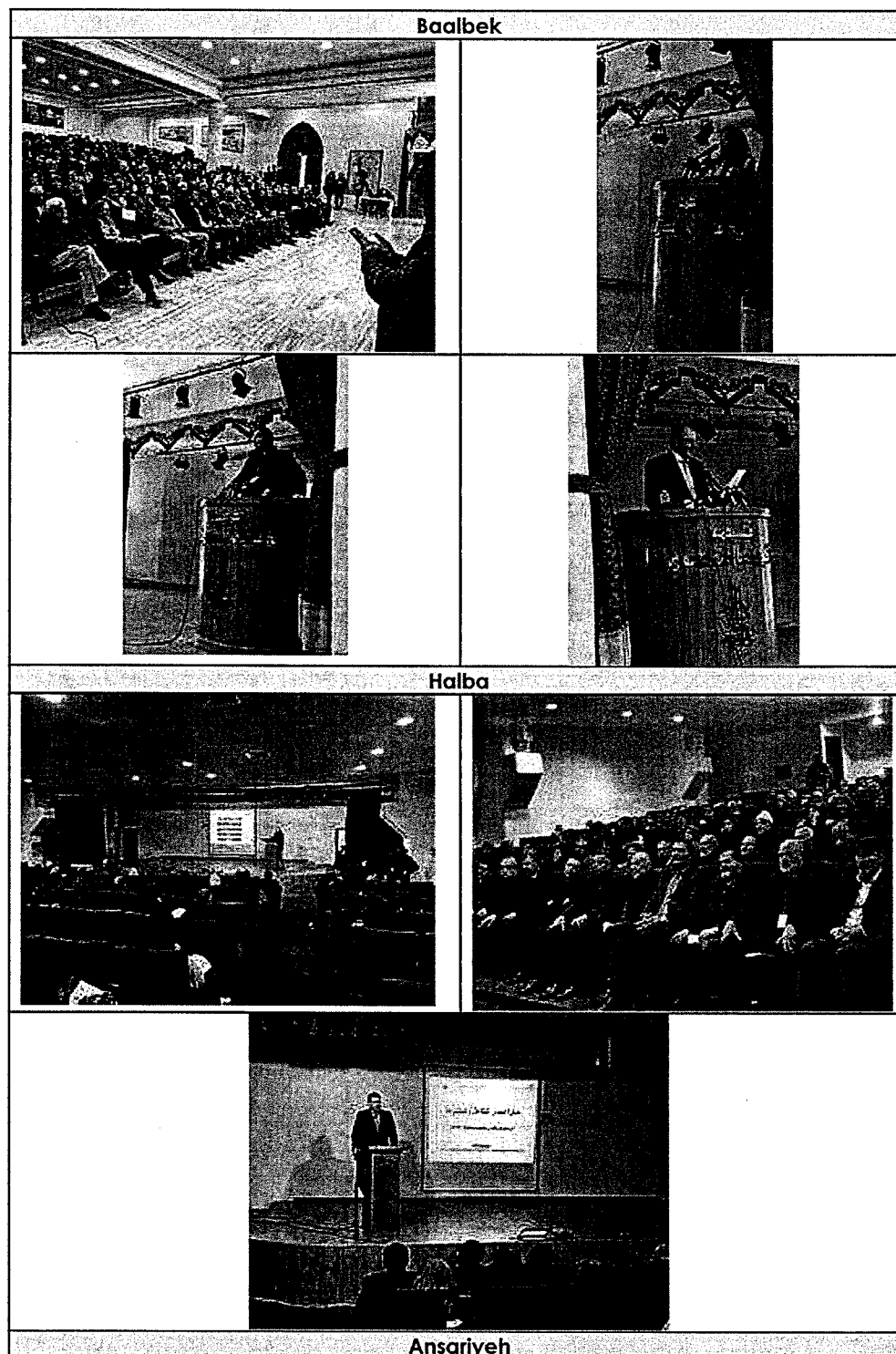
- Marketing of the agricultural production is one of the major concerns for many participants.
- One of the participants proposed encouraging youth to be involved in the agricultural sector, noting that Youth are not motivated towards this promising sector. Moreover, it is advisable to encourage them and relate the sector to modern technology being one of the tools applied in modern Agriculture.
- One participant raised this concern, clarifying that Women do work in Agriculture but do not consider it as work. We should give them incentives and provide them with support during the whole cycle of the project.
As envisaged in the SEP, women are directly targeted along the project planning and implementation phases. Invitations have been sent to this group of residents as individuals and cooperatives, to be part of the focus groups discussions. A special care has been given to this case bearing in mind that women contribute largely in the agricultural sector, but are not appropriately valued in terms of generating income. It was clarified by the expert that Women are part of the beneficiaries to be targeted in the project.
- Participants inquired about the high cost of onions sold in the markets.
- A well-studied earthy berm (ساتر ترابي) is needed to avoid water expansion.
- Knowing the status of beekeeping, we need to promote beekeepers and enhance this sector's production.
- One participant suggested replacing "Green" Agri-food transformation with "Sustainable".
- Available lands in Akkar are suitable for investment. Each region has its specific characteristics producing excellent products in case of affordable materials and capacities of the farmers.
- Production cost is increasing due to cost of seeds which is in USD, in addition to fertilizers, medications, workers' expenses, watering through canals or wells and the cost of fuels. We should seek a better system to enhance capacities for a better production, for example through the installation of solar systems to reduce costs.
- Funds are needed to be allocated for irrigation canals, in addition to providing support for the purchase of fertilizers and medications. In parallel, we should secure markets to sell agricultural production.
- We should focus on milk production, being a weak sector and livestock breeders lack know-how, experience, and green farms for breeding cows.
- It is recommended to focus on specific sectors. People are draining their energies and resources, while agricultural production is decreasing. We should decrease production costs and promote better production. We have small holdings but we should pay attention to what is more convenient environmentally.
- Infrastructure for irrigation canals.
- Overlapping of production.
- Support cooperatives with small and alternative cultivations such as roses.

- Need know-how and awareness campaigns to know how to achieve better production. We need to decrease production costs while upgrading the production.
- Need for Solar energy or alternative energy.
- With the lack of Lebanese workers in agricultural lands, we need Infrastructure for services, linked to human resources.
- Requested licenses from Lebanese official authorities are becoming harder. We need to simplify the procedures in order to encourage Agriculture.
- No laboratory is available for soil testing, or long distances need to be travelled for this purpose, resulting in additional burdens on farmers. No bank for seeds is available.
- We recommend re-opening Al Abdeh laboratory (LARI) to allow employees to resume work, and reduce costs of testing soil and water.
- We do not have wastewater management systems
- Aromatic plants are recommended within the project activities.
- Cutting off trees, especially Juniperus excelsa (الزرايب), should be prohibited
- Soil tests and water tests should be secured to ensure the sound production in order to reach foreign markets
- The Agriculture sector must be organized through the establishment of syndicates for farmers, especially those working in the food industry. In Akkar, there is no industry for food processing such as tomato paste like in Beqaa
- Absence of trust in governmental projects

The third stakeholder consultation took place on February 17, 2023, for the South and Nabatiyeh governorates and the main recommendations and suggestions by the various stakeholders were as follows:

- Engagement of public sector in the identification process / reduce import and increase export of agricultural products.
- Enhancing Lebanese products and marketing productions.
- Transparency in the methodology of work / water strategy.
- Linkage between the crops to be supported and the channels of marketing
- Support women working in the agricultural sector to achieve self-sufficiency. Women constitute a large working force in the south, especially in the cultivation of tobaccos. It was suggested by the participants to create a link between agri-food cooperatives and the Lebanese Army in order to market their products.
- Wastewater treatment
- Extension of the nature reserves
- Importance of the existing manpower and resources / factors influencing agriculture
- Water management and rationalization / climate change influence
- Agriculture academy / animal / production marketing
- Coordination and collaboration with Municipalities and local authorities / sectors of intervention
- Harmony between plant and animal farming
- Adopt the agriculture strategy prepared by the Ministry of Agriculture.
- Need for laboratories / incubators for honey queens ...
- Need for laboratories / crops development according to characteristics of regions
- Support of agricultural extension centers

Table 4-1 Photos taken at the Stakeholders meetings





5. ARRANGEMENT AND STRENGTHENING OF INSTITUTION AND TRAINING

5.1 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.

The governmental agencies' main functions and implementation responsibilities have been presented in section 2.6 **Error! Reference source not found.** under Table 2-16.

A PSC shall be established to oversee the implementation of activities and resolve issues of a policy nature that might arise during project execution. It would be chaired by the Ministry of Agriculture and the Ministry of Economy and Trade, and its members would include the Ministry of Finance, Ministry of Industry, Ministry of Environment, Ministry of Energy and Water and Ministry of Tourism.

The CDR PCU shall hire an Environmental and Social Specialist, who will be responsible for the day-to-day implementation of the outcomes of the E&S studies and instruments. The E&S Specialist will assume overall responsibility for coordinating the management of the environmental and social aspects of the project interventions at the respective sites.

CDR has a proven record in implementing projects financed by the World Bank. Performance is, in general, satisfactory. CDR reports to the Council of Ministers. CDR will leverage the experience of the Economic and Social Fund for Development's experience (ESFD) that was established in 2000 as a semi-independent body dedicated to alleviating poverty through the creation of employment opportunities and the improvement of living conditions of vulnerable communities.

ESMF

A training program will be delivered to enhance the E&S management capacity for MOE, Municipalities, UoMs, contractors, sub-contractors, smallholder farmers, SMEs and communities on:

- ESF and ESMF;
- ESIA/ESMP for sub-projects;
- SEP and GM;
- ESCP and Monitoring of the ESHS
- Performance of the Project (and incidents and accidents reporting)
- Community Health and Safety;
- GBV Risk Prevention and Management;
- LMP and Labor GM;
- Codes of Conduct for the contractors' workers and Training on the Requirements of Codes of Conduct including ESHS, OHS, GBV, VAC, SEP and GM.
- Violence Against Children, including awareness campaigns.

The appointed specialist at CDR PCU will prepare and submit to the WB regular monitoring reports on the environmental and social performance of the Project, including but not limited to the implementation of the ESCP, status of preparation and implementation of E&S documents required under the ESCP, stakeholder engagement activities, functioning of the grievance mechanism(s).

5.2 COST ESTIMATE

As the project is still at its conceptual framework phase, it is difficult to provide an accurate budget for the ESMF. Table 5-1 provides an interim budget for environmental management within the GATE project by providing estimates of the price of each instrument that might be required for the sub-projects. Ranges are provided since the cost will depend on each project's size, scope, complexity, whether it is linear or not, etc.

Table 5-1 Cost Estimate of the ESMF Implementation

Item	Responsible Party	Indicative Cost
Subsequent preparation of an E&S Audit study	CDR PCU	USD 8,000 -15,000
Subsequent preparation of an ESIA study	CDR PCU	USD 12,000 – 50,000
Subsequent preparation of an ESMP study	CDR PCU	USD 8,000 – 20,000
Training and capacity building on implementation of ESMPs for	CDR PCU	USD 10,000

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

ESMF

Item	Responsible Party	Indicative Cost
contractors, subcontractors and relevant institutions		

6. GRIEVANCE MECHANISM (GM)

The CDR PCU will have the overall responsibility for handling and managing all project related grievances and for coordinating and compiling all grievances with the relevant implementing agencies including the Kafalat and Green Plan. 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. Effective GM facilitates Project progress by reducing the risk that unaddressed complaints eventually lead to implementation delays, lengthy court procedures, or adverse public attention.

As suggested in section 3.1.1.4, Table 3-7 a labour specific GM has to be established in addition to a GBV specific GM in order to cover risks related to SEA/SH.

The final design of the GMs will be validated and adjusted as needed during the course of Project implementation in consultation with relevant stakeholders, to ensure its relevance and ease of use, and for stakeholders to tap into the GMs channels.

As per section 6 of the Stakeholder Engagement Plan (SEP) report, 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 GMs objectives are to:

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

The CDR PCU will establish a centralized database (complaints log or data system), and will require that all grievances received be logged into that database. Centralized logging and tracking is important both for accountability and for enabling continuous learning. As part of the CDR PCU, a GM officer shall be recruited, who will coordinate throughout the project life cycle with the Kafalat and Green Plan implementing agencies and the CDR PCU E&S specialist to ensure:

- adequate functioning of the GM,
- widespread and effective dissemination,
- proper logging and documentation of the grievances in a unified/streamlined GM log across all implementing partners,
- all cases are closed in a timely manner,
- SEA/SH related grievances are referred to the GBV service providers following the consent of the survivor/complainant,

- inform WB within 48 hours in line with the ESCP in the event of incidents/SEA/SH complaints.

While the GM is not established at this time, it will be operationalized in line with the provisions of the ESCP. The instruments, which are living documents, will be updated as needed to reflect the newly established and operationalized GM which will also be widely disseminated to all stakeholders including vulnerable groups.

The detailed GM for this project is outlined as part of section 6 of the Stakeholder Engagement Plan (SEP) which is publicly disclosed. the GM will 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.

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