

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title

Restoring Ecosystem Connectivity for Biodiversity and Sustainable Livelihoods in the Litani Watershed Project (ECONNECT)

Region

Lebanon

GEF Project ID

11348

Country(ies)

Lebanon

Type of Project

FSP

GEF Agency(ies):

IFAD

GEF Agency ID

2000004737

Executing Partner

To be determined

Executing Partner Type

Others

GEF Focal Area (s)

Land Degradation

Submission Date

10/16/2023

Project Sector (CCM Only)

Taxonomy

Forest, Focal Areas, Biodiversity, Mainstreaming, Agriculture and agrobiodiversity, Drylands, Forest and Landscape Restoration, Land Degradation, Sustainable Land Management, Income Generating Activities, Integrated and Cross-sectoral approach, Ecosystem Approach, Community-Based Natural Resource Management, Sustainable Agriculture, Sustainable Livelihoods, Improved Soil and Water Management Techniques, Restoration and Rehabilitation of Degraded Lands, Food Security, Land Degradation Neutrality, Land Productivity, Land Cover and Land cover change, Strengthen institutional capacity and decision-making, Influencing models, Demonstrate innovative approach, Deploy innovative financial instruments, Convene multi-stakeholder alliances, Stakeholders, Local Communities, Type of Engagement, Partnership, Participation, Civil Society, Non-Governmental Organization, Community Based Organization, Communications, Education, Strategic Communications, Public Campaigns, Awareness Raising, Behavior change, Private Sector, Capital providers, SMEs, Large corporations, Individuals/Entrepreneurs, Beneficiaries, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Women groups, Gender results areas, Access and control over natural resources, Capacity Development, Access to benefits and services, Capacity, Knowledge and Research, Enabling Activities, Innovation, Learning, Theory of change, Indicators to measure change, Adaptive management, Knowledge Generation, Workshop, Knowledge Exchange

Type of Trust Fund

GET

Project Duration (Months)

48

GEF Project Grant: (a)

2,929,935.00

GEF Project Non-Grant: (b)

0.00

Agency Fee(s) Grant: (c)

278,342.00

Agency Fee(s) Non-Grant (d)

0.00

Total GEF Financing: (a+b+c+d)

Total Co-financing

3,208,277.00	9,024,240.00
PPG Amount: (e)	PPG Agency Fee(s): (f)
100,000.00	9,500.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
109,500.00	3,317,777.00
Project Tags	
CBIT: No NGI: No SGP: No Innovation: No	

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

Due to the unfolding economic crisis, Lebanon is witnessing rising poverty levels and food insecurity. Facing difficulties in importing goods, the country is increasingly reliant on domestic food production. However, the increasing pressure on the agricultural sector, coupled with the impacts of climate change, leads to further land degradation, pressure on natural resources and pollution in Lebanese watersheds, including the Upper Litani, the largest and most important basin in Lebanon. Despite fragmented efforts to tackle degradation and restore ecosystem productivity and biodiversity in the watershed, a landscape approach is required to ensure the coordination of the competing land users and tackle collectively the multi-faceted environmental and social challenges communities face. With this objective, the project aims to improve ecosystem services for sustainable livelihoods in the Upper Litani Basin through mosaic-landscape restoration and sustainable and integrated agriculture and aquaculture approaches. The project will contribute to the establishment of an ecological corridor, connecting the Shouf Biosphere Reserve and Mount Hermon Protected Area, where sustainable aquaculture and agricultural practices will complement the restoration of riparian and rangeland ecosystems, in alignment with a participatory and scientifically sound ecosystem restoration plan. By improving access to finance to promote innovative solutions and biodiversity-positive value chains, smallholders will be incentivised to transform the way they produce for better soil health and long-term productivity. Innovative and environmental-friendly approaches, such as integrated crop-fish systems, will be piloted to reduce agricultural waste, diversify production, and promote aquaculture as a sustainable livelihood activity, with co-benefits in terms of food and nutrition security.

ECONNECT’s objective is to implement sustainable landscape management approaches in the Upper Litani Basin, with a focus on biodiversity-friendly agriculture, aquaculture and the transformation of the heavily polluting crop and aquaculture sectors, while promoting innovation, learning, replication and upscaling. The project intends to be transformative, and its interventions are expected to showcase the implementation of circular economy principles and nature-based solutions to mitigate environmental impacts from the targeted sectors, including the creation of income generating opportunities for women and youth. The project will also foster the adoption of innovative practices in these sectors through a matching grant fund for small-scale producers, fostering the uptake of sustainable aquaculture and agroecological practices, generating new or additional sources of income. The project will also support policy dialogue relevant to sustainable aquaculture, as well as create collaborative models for stakeholders across the sectors through the development of multi-stakeholder platforms to enhance production and create market linkages. By targeting the largest river basin in Lebanon and addressing the main sources of pollution and land degradation, Global Environmental Benefits (GEBs) delivery will be maximized, and specifically GEF-8 core indicator 3 (CI.3) on area of land and ecosystems under restoration and core indicator 4 (CI.4) on area of landscapes under improved practices.

Indicative Project Overview

Project Objective

Restore ecological connectivity and improve ecosystem services for sustainable livelihoods in the Upper Litani Basin through mosaic-landscape restoration and sustainable agriculture and aquaculture.

Project Components

Component 1: Strengthening the enabling environment to scale-up ecosystem restoration in degraded mosaic landscapes

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
1,280,430.00	4,323,601.00

Outcome:

Outcome 1.1.

The resilience of restored agro ecosystems in mosaic landscapes is enhanced

Output:

Output 1.1.1. Ecosystem Restoration Plan (ERP) designed and validated

Output 1.1.2.

A selection of priority areas of high ecological value is restored

Component 2: Promotion of agroecological practices and responsible value chains including aquaculture

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)
1,397,967.00	4,131,600.00

Outcome:

Outcome 2.1. A conducive framework is established to foster the adoption agroecology and aquaculture in priority areas identified by the ERP

Outcome 2.2. Enhanced livelihoods of vulnerable local households through sustainable agroecology and aquaculture

Output:

Output 2.1.1. Capacity and business development plans implemented for sustainable agriculture and aquaculture value chains (at least 40% directly targeting women)

Output 2.1.2. The environmental performance of the Anjar Centre for Aquaculture (ACA) is monitored and improved

Output 2.1.3 Guidelines and SOPs for sustainable aquaculture developed with a focus on social inclusion

Output 2.2.1. Public-private partnerships for value chain business models activated through program of grants (at least 40% targeting women)

Output 2.2.2. Market linkages built/strengthened for local producers and value chain operators with a focus on social inclusion

Component 3: Knowledge management and awareness raising

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
71,000.00	70,000.00

Outcome:

Outcome 3.1.

Project practices and lessons learned disseminated among relevant audiences through awareness raising and knowledge exchange at the national and international levels fostering learning

Output:

Output 3.1.1.

Awareness raising programme designed and implemented targeting project area as well as the national level, using a broad array of media tools and social opportunities.

Output 3.1.2.

Lessons learned and best practices from the project disseminated among relevant audiences, with a focus on gender and social inclusion.

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
41,241.00	70,000.00

Outcome:

Effective and timely results are achieved

Output:

Gender responsive M&E system including both quantitative and qualitative analyses and impact assessments at project mid-term and completion designed and implemented

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
Component 1: Strengthening the enabling environment to scale-up ecosystem restoration in degraded mosaic landscapes	1,280,430.00	4,323,601.00
Component 2: Promotion of agroecological practices and responsible value chains including aquaculture	1,397,967.00	4,131,600.00
Component 3: Knowledge management and awareness raising	71,000.00	70,000.00
M&E	41,241.00	70,000.00
Subtotal	2,790,638.00	8,595,201.00
Project Management Cost	139,297.00	429,039.00
Total Project Cost (\$)	2,929,935.00	9,024,240.00

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

Environmental and Social Background

On a global scale, Lebanon is considered a unique biodiversity hotspot^[11]. The Bekaa Valley is a fertile land corridor separating the Mount Lebanon and Anti-Lebanon ranges. The valley is drained to the north by the Assi River and to the south by the Litani River^[12]. Most of the agricultural fields are located in this alluvial plain with the Litani River running through it from north to south. Lebanon has had uneven population growth over the past 50 years and is currently growing at 1% per year^[13]. In terms of overall healthy life, access to knowledge and a decent standard of living, Lebanon's ranks high (0.706) in 2021, putting the country in the High human development category^[14]. However, the majority of its population are unable to secure social and economic rights amid a worsening economic crisis. 82% of the Lebanese population live in multidimensional poverty and has experienced a decline in economic activity, political instability, and rising costs of living^[15]. The first ever Integrated Phase Classification (IPC) food security analysis in the country found that around 2 million people living in Lebanon in 2022 – 37% of the total population – were estimated to be in acute food insecurity situations. Poverty and food insecurity are particularly pronounced in the Bekaa region, where median monthly income is \$78 and 38% of inhabitants are classified as poor^[16]. Amongst the Syrian refugees whose numbers are growing in the area, household food insecurity is as high as 82% in some cases^[17].

The Problem

Ecosystem degradation across Lebanon has expanded and intensified in recent years due to growing anthropogenic pressure. Estimates from 2004 suggest that land degradation costs the country US\$132 million annually, a figure likely to have increased with rampant losses in natural capital in the years since^[18]. Over past decades, Lebanon has followed an unsustainable development trajectory, which has placed immense constraints on the country's natural resources. The multi-pronged economic and financial crises blighting Lebanon has restricted the amount the government can spend on importing food and agricultural inputs, leading to pressures on farmers to intensify agricultural production at the expense of environmental sustainability and ecosystem health. With a rising population, largely due to the influx of Syrian refugees, more pressure is expected to be exerted on agricultural production and the country's depleting land and water resources.^[19] In the Upper Litani watershed, the largest in Lebanon, over-grazing, soil erosion and deforestation have stripped the once lush area

of natural vegetation cover. The loss in genetic and species diversity experienced across the landscape^[10]¹⁰ critically reduces the adaptation services which underpin farmer's resilience to the accelerating impacts of climate change, including increased droughts and water scarcity^[11]¹¹. The loss of vegetative cover, pollutants from agricultural land use, and high pollution in the basin's water bodies and watercourses are impeding the ecosystem's ability to trap sediments. The environmental challenges and their root causes, which the project seeks to address, are varied. Through careful analysis of the local ecosystem dynamics and the impacts of wider social and environmental processes on the target landscape, the following challenges are categorised and discussed:

Biodiversity Loss: Across Lebanon, biodiversity is in decline. Although no national IUCN (International Union for Conservation of Nature) red list for Lebanon exists, it is estimated that up to 5% of fauna in Lebanon is threatened, while seven fauna species have recently become extinct. Lebanon is also one of the most important flyways for migratory birds in the world. 407 species of birds have been recorded in Lebanon, however illegal hunting and unsustainable forestry and agricultural practices are responsible for the disappearance of several of these species^[12]¹². The Upper Litani has a very rich biodiversity, comprising several types of ecosystems forming habitats for a diversity of animal and plant species. Forests and other wooded lands in this area include mostly mixtures of conifer and hardwood trees, such as *Quercus Pinus sp.* These forests are known for their multi-functionality in providing ecosystem goods including non-wood forest products, such as aromatic and medicinal plants (used in the preparation of many traditional meals), honey, pine nuts, etc. The West Bekaa also hosts the "Ammiq" wetland, one of the most important in the Middle East, which is declared as a Ramsar Conservation site by the United Nations Educational, Scientific and Cultural Organization (UNESCO) World heritage (MoE/GEF/UNEP/Elard, 2015). In the West Bekaa and Mount Lebanon governorates, which cover part of the project area, biodiversity threats are mostly impacted by (i) forest loss, degradation and fragmentation due to intense logging, wood and fodder collection, (ii) overgrazing caused by the decline of traditional pastoral systems, (iii) uncontrolled harvesting of non-wood forest and pasture products, (iv) environmental threats, including climate change and forest fires caused by the burning of agriculture waste, and (v) urban sprawl^[13]¹³.

Land degradation and desertification: The Integration of Lebanon's Land Degradation Targets within the National Action Program to Combat Desertification published in 2019^[14]¹⁴ classifies 39% of the territory as being very exposed to land degradation (less than or equal to 90 Kg C/m²). Between 2000 and 2010, the country lost an estimated 2,257 ha of cropland, 1,783 ha of forests and 1,201 ha of grassland. Productivity decline was observed in 13,855 ha of croplands, 5,896 ha of forests and 2,909 ha of grasslands^[15]¹⁵. The loss of traditional natural resources management practices in the Shouf Biosphere Reserve landscape have resulted in the mismanagement and overexploitation of forests, pastures, and increased wildlife. The abandonment of the traditional terraced farming systems and the introduction of intensive farming have caused significant soil erosion and water pollution problems. Uncontrolled land uses, such as the opening of quarries and building of houses have created serious problems of air, water and soil pollution, soil erosion, habitat fragmentation and higher fire risk, besides reducing the aesthetic value of the wider landscape.

Forest degradation: Forest integrity is susceptible to the variable needs and dependencies of communities on charcoal and firewood in the Upper Litani^[16]¹⁶. Poor management of grazing practices has led to the loss of forest cover in various areas in Lebanon, particularly in the middle and the high mountain areas. Unorganized quarrying has caused the loss of important habitats, transformed landscapes permanently and diffused degradation pressures over massive surrounding areas. Four main factors affect forest ecosystems in the Litani basin: uncontrolled hunting, overharvesting of wild edible plants, overgrazing, and overexploitation of forest resources. The uncontrolled harvesting of Non-timber Forest Products, including wild edible plants, is aggravated by poverty and economic crisis. Overgrazing and the lack of awareness around the issue are supported by the inexistent planning of land use and rangeland management.

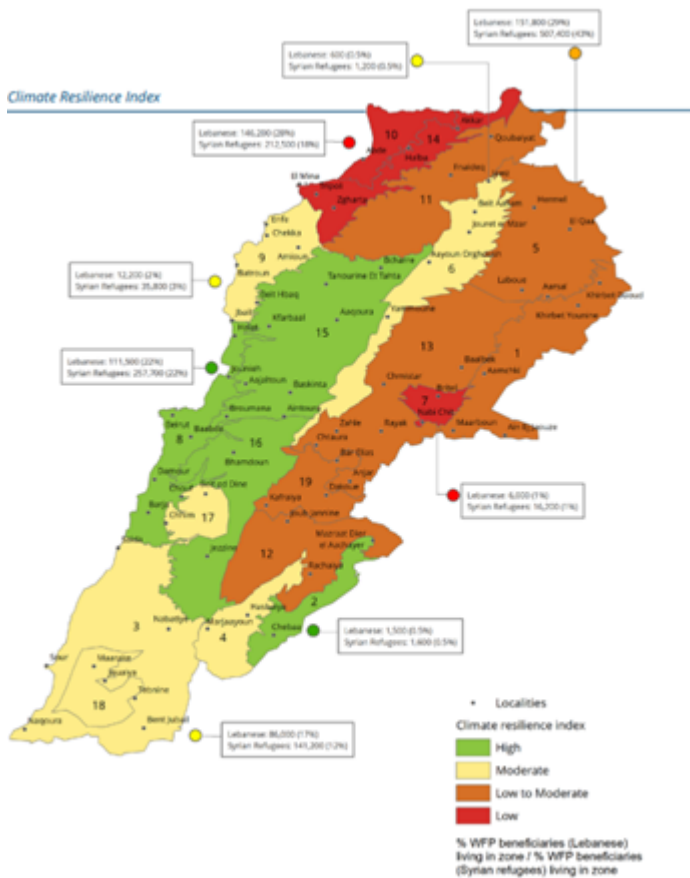
Unsustainable agricultural practices: The Bekaa plain, which makes up a significant portion of the Litani basin, represents the backbone of agriculture and agroindustry in Lebanon. Around one third of the agriculture practised in the area is intensively cultivated

and irrigated^{[17]¹⁷}, with disregard to pressures on the traditionally rich and fertile soil. While some farmers follow rotation systems, most practice monocultures of cash crops and vegetables^{[18]¹⁸}. A major obstacle for sustainable agricultural practices across Lebanon remains linked to land tenure. The majority of farmers work on very small parcels (75% of them operate on less than 1 ha of useful agricultural surface and 95% on less than 4 ha) making it difficult to implement comprehensive and unified soil management plans for a given geographic zone^{[19]¹⁹}. Pollution generated by this sector in Bekaa is affecting the watershed as a result of the uncontrolled use of chemicals such as fertilizers, pesticides and livestock farming^{[20]²⁰}. Further, in Central Bekaa, farmers are forced to use contaminated water to recompense water shortage during the peak crop demands, to the detriment of soil and groundwater quality^{[21]²¹}.

Unsustainable freshwater fisheries practices: The fisheries sector in Lebanon is predominantly artisanal and traditional. Key ecological impacts of unsustainable fishing practices in Lebanon include overfishing, thus reducing the population size of certain species, bycatch of protected species, and use of entangling nets with illegal mesh sizes. These unsustainable practices have led to the collapse of fish stocks, which threaten the nutritional and food security of the Lebanese people^{[22]²²}. Within the target project area, fishing is practiced in the Qaraoun Lake, despite a total ban due to high pollution level, representing a significant health risk for consumers. While freshwater aquaculture has generated enthusiasm across Lebanon in the past decades with potential for food security, economic growth and poverty alleviation, environmental impacts must be managed to ensure production is sustainable.

Climate Change Impacts

Lebanon encompasses four climate-geographical zones: (i) a flat, narrow coastal plain that runs parallel to the Mediterranean Sea; (ii) the Lebanon Mountains; (iii) the Bekaa Valley; and (iv) the Anti-Lebanon mountain range. The climate is characterized by hot, dry summers with low precipitation levels (June–Sept.) and cool, rainy winters (December – mid-March). All rivers in Lebanon including the Litani river are replenished annually by local precipitation events, which tend to be restricted to around 90 to 100 days between October and April, and to snowmelt. Climate change has substantially increased the occurrence of climate and weather extremes, including heat waves, heavy precipitation, floods and droughts, in Lebanon. (World Bank, 2018a). Based on the data reported by WFP in 2020^{[23]²³}, most of the Bekaa and Northern districts, specifically the West Bekaa, has a low to moderate resilience index, hence high vulnerability to climate change. Changes in temperature and precipitation patterns show a significant effect on the production of wheat, potatoes, and other large field crops cultivated mainly in the Bekaa area.



Climate projections ([MoE/UNDP/GEF, 2016](#)) suggest: (i) an increase in temperature of 1.2°C by mid-century and over 2°C by 2100 with a reduction of 6 – 8% of the total volume of water resources with the increase in 1°C and 12 -16% with a 2°C rise; (ii) decrease in precipitation of 4 -11% with drier conditions by the end of the century; (iii) an increased trend of warming, reaching up to 15 additional days with maximum daily temperature higher than 35°C and an increase in number of consecutive dry days when precipitation is less than 1.0 mm by the end of the century; (iv) an increased incidence of drought conditions due to longer and geographical expansion of drought periods resulting in a hotter and drier climate; (v) continued sea level rise of 30-60 cm between 2020 and 2050.

An assessment of the impact of climate change on important economic and health sectors was presented in the Third National Communication (TNC) to the UNFCCC in 2016([24](#)²⁴).

Water scarcity: Lebanon is ranked as having extremely high baseline water stress([25](#)²⁵). Projected climate change in the country is expected to negatively impact its water resources and increase water shortages. This problem is only expected to get worse, with mountain snow cover projected to decrease by 40–70% by 2050, which will impact vital water sources and lead to further water scarcity. Water deficits are especially acute in the Bekaa Valley, where potential evapotranspiration exceeds 70% of precipitation, adversely impacting river and groundwater recharge. Reduced precipitation (both snow and rain) is likely to increase the incidence of drought, while higher temperatures will amplify the effects of drought([26](#)²⁶). A reduction in water supply and crop yields as a result of climate change significantly impacts the Gross domestic product (GDP) of the country, with an estimated reduction of 1.9 % of GDP by 2050. Key challenges faced by the water sector include outdated and insufficient infrastructure, poorly managed water utilities, high rates of non-revenue water, limited water storage, poor irrigation efficiency and mounting pressures on ground and surface water supplies([27](#)²⁷).

Water pollution: The uncontrolled discharge of point and non-point sources of pollution continue to degrade the water quality of the Lebanese rivers, springs, wetlands and aquifers. The Litani River Basin is the most significant freshwater system in Lebanon, but its role in water supply is compromised by poor water management and high pollution levels. The extent of water impairments in river systems varies widely by season, across rivers, as well as within a specific river. While the main sources of pollution are largely common (domestic wastewater and solid waste; point sources from industrial, healthcare, touristic and classified establishments, quarries; and non-point agricultural runoff), their relative contribution is river-specific and tightly associated with the dominant land uses within the watershed.

Barriers that need to be addressed

Despite recent but scattered restoration efforts across the Upper Litani Watershed, coordinated sustainable land management planning and governance across the landscape to increase agricultural productivity and improve the delivery of multiple benefits from forest and rangeland ecosystems have been thus far insufficient. Due to competing land use challenges and multiple social and environmental constraints across the watershed, there is a need to establish integrated approaches for achieving ecosystem restoration at landscape level, through a combination of well-designed activities.

Barriers to achieving an integrated landscape approach through sustainable agriculture and aquaculture activities can be clustered into three groups as shown in the following table, showing also the root causes and project responses:

Barriers	Root causes	Project responses
Barrier 1: Stakeholders have inadequate knowledge and weak technical capacities for implementing sustainable agricultural and aquaculture practices	<ul style="list-style-type: none"> Lack of awareness on the sustainable use of natural resources among stakeholders, leading to the proliferation of degradative practices and behaviours Limited access to in-depth technical assistance, promoting the adoption of sustainable practices, i.e. bio-composting, rotational grazing Limited access to resources, equipment, inputs, and planning tools The fragmentation of land tenure in very small parcels constrains the efforts of planning at scale Insufficient planning and policy guidance for implementing sustainable agriculture and aquaculture practices 	<ul style="list-style-type: none"> Provision of Farmer Field School and on aquaculture and agroecology and business training to increase knowledge and awareness around good agricultural practices Demonstration aquaculture farm highlight value of sustainable aquaculture and integrated systems to farmers, attracting adoption and buy-in Increase attractiveness of sustainable agriculture and aquaculture to vulnerable communities to enhance their livelihood opportunities A well-managed restoration plan (ERP) guides farmers in adopting sustainable practices, overcoming the issue of land tenure fragmentation Partnerships with seedling nurseries and existing composting units will provide access to inputs, while fostering the adoption of sustainable practices (cultivation of wild relative varieties and locally adapted varieties, use of compost as fertiliser agent)Guidelines and SOPs for sustainable aquaculture will regulate the sector, preventing the adoption of unsustainable practices across the sector
Barrier 2: Limited access to finance for smallholders to support sustainable transitions, including accessing new technologies, materials and infrastructure required for sustainable practices	<ul style="list-style-type: none"> Limited public and private funds available to support sustainable agriculture and restoration practices Limited business know-how amongst local actors willing to attract investment Limited involvement of the private sector in landscape restoration efforts High costs of inputs including fodder, seeds, fingerlings for farmers and fisherfolk 	<ul style="list-style-type: none"> Matching grants established to fund sustainable agriculture and aquaculture Trainings on management of small income-generating projects related to aquaculture and agroecology Establishment of a multi-stakeholder platform, strengthening the linkages with private actors Develop a comprehensive approach for landscape rehabilitation that involves key stakeholders, including private sector. Strengthen awareness of private sector on sustainable and marketable products, which also support biodiversity protection (crops and fish) Integrated agriculture-aquaculture reducing input costs through the provision of mutually beneficial organic materials for farms and fisheries

<p>Barrier 3: Limited policy support and institutional frameworks undermine the coordination required for effective landscape restoration</p>	<ul style="list-style-type: none"> • Lack of coherent, integrated restoration planning to address ecosystem degradation while ensuring agricultural productivity across target landscape • Limited technical expertise of MoA and MoE to manage restoration of landscape • Insufficient comprehensive guidelines on promoting sustainable aquaculture • Unclear delimitation of land tenure across target landscape leading to land use conflicts 	<ul style="list-style-type: none"> • Design and implementation of ERP to coordinate restoration efforts • Building capacities of local authorities to implement and monitor the ERP • Zoning maps delineate land rights to reduce land conflicts and facilitate coordinated land use planning • M&E from project feeds into decision making on restoration and sustainable aquaculture supporting MoE and MoA effort in landscape restoration

Baseline scenario and any associated baseline project

The Upper Litani watershed faces a critical environmental situation with deforestation, unsustainable agricultural practices and waste from informal refugee camps, amongst other factors, contributing to severe resource depletion. These challenges are exacerbated by the worsening impacts of climate change, particularly on water scarcity, and inadequate planning, enforcement and legal frameworks. The project will look to add value to and build on the following investments related to agriculture, aquaculture, land use and value chains at national and local levels in recent years, which can be split into the following:

Investments in Planning and Regulations: At national level, the ongoing GEF-UNDP Land Degradation in Mountain Landscape in Lebanon is investing in strengthening legal frameworks and capacities at institutional and individual levels for land use planning and management in areas covered by ECONNECT[28]²⁸. The project seeks to strengthen monitoring and enforcement mechanisms to ensure compliance with land management practices. ECONNECT will closely coordinate with the GEF-UNDP project to ensure that proper enforcement mechanisms are in place in areas targeted for restoration. At local level, integrated land use management plans have been developed for four districts in the Qaraoun watershed through the Sustainable Land Management in the Qaroun Watershed project[29]²⁹. These plans will feed into the establishment of the ERP across the landscape. Moreover, spatially based decision-making tools containing information on the location of critical habitats and thresholds for the use of natural resources will be a critical resource for landscape planning. They will further support the implementation and monitoring of environmental and social safeguards, as well as the overall M&E of the project. In the Shouf Biosphere reserve, a management plan has also previously been developed with a

range of strategies outlined to support the management of natural resources across a range of sectors. A similar plan is being developed for the Mount Hermon Protected Area. As the project will support the establishment of an ecological corridor between the two reserves, linking to these plans will also ensure coordination amongst municipal authorities operating across the landscape to minimise trade-offs and maximise the effectiveness of the corridor for biodiversity, environmental and social aims.

Investments in Production Practices: The aforementioned Land Degradation in Mountain Landscape in Lebanon has invested almost 1 million USD in rehabilitating and restoring degraded farmland through conservation agriculture, integrated crop management, intercropping and other techniques to improve soil health. ECONNECT will also engage with the BASATINE - *Bolstering Agriculture Systems' Ability To Invest, Nourish and Employ* project^{[30]³⁰}, led by the French government, which is currently investing \$17 million in supporting local farms in Akkar and the Bekaa by funding inputs, enhancing resilience to the climate and economic crises and enhancing land tenure. Due to the geographic overlaps, ECONNECT will ensure to coordinate with and enhance the environmental sustainability of some of these interventions. The baseline investment will also build on the strategies 3 and 6 of the [MAVA^{\[31\]} funded Project "Building the ecologic and socio-economic resilience of the Shouf Mountain and West Beqaa Landscape"](#) by restoring and strengthening the socio-cultural fabric which sustains its biodiversity and cultural values^{[32]³¹} - which is implemented by ACS – Al Shouf Cedar Society in partnership with SPNL - Society for the Protection of Nature of Lebanon. Strategies 3 and 6 promote diversification of the local economy, building on the green growth opportunities offered by the marketing of agroforestry products (e.g. wild edible crops or plants) with a special focus on the empowerment of women and youth and building new generation of environmentally aware and conscious citizens through formal and informal educational actions in the Shouf landscape, respectively. ECONNECT will also engage with the FAO supported ‘*Promotion of Good Agricultural Practices, Including Integrated Pest Management, to reduce agrochemical pollution in the Upper Litani River Basin*’. Specifically, ECONNECT will incorporate the lessons learned and best practices from this project to identify and support communities to strengthen biodiversity conservation, improve sustainable agriculture and aquaculture practices, and promote biodiversity-friendly business enterprises to address land degradation. ECONNECT will also support recent national efforts to bolster the freshwater aquaculture sector. A new Fisheries and Aquaculture Law has been drafted by the Ministry of Agriculture - MoA^{[33]³²} with support from FAO and is expected to set out guidance for improving the productivity and sustainability of the freshwater aquaculture sector, as well as indicating measures for pollution mitigation in the lakes and rivers of the Litani basin. Further, the Anjar Center for Aquaculture, located to the north of the basin and a once important hatchery supporting local aquaculture, is currently under rehabilitation through a UNDP project, after decades of disuse. The center is expected to revitalise the aquaculture sector in the area by providing the infrastructure and genetic materials, further contributing to diversified livelihood opportunities for local communities.

Alternative scenario

Despite the significant number of baseline initiatives in the Upper Litani basin, many of these fragmented efforts are limited to restoration of specific areas, such as the Shouf Biosphere Reserve. The development of an ecological corridor between both the Mount Hermon and Shouf protected areas would ensure species are able to move easily across the landscape, contributing to provisioning, regulating and cultural ecosystem services. Specifically, project activities will contribute to crop pollination and healthier soil for food production, buffering of rivers to manage pollution run off and numerous recreational benefits over the long-term. By applying a landscape approach, which coherently tackles degradation, water pollution, biodiversity loss and poverty and unemployment, the proposed GEF project (ECONNECT) attempts to simultaneously achieve social, economic and environmental objectives while ensuring that the needs and interests of all stakeholders are fully captured through the coordination of multiple landscape actors.

ECONNECT aims to address knowledge gaps on sustainable production by building local conditions and capacities to restore ecosystem connectivity for biodiversity conservation and sustainable use and livelihood resilience through an integrated ecosystem restoration plan, sustainable agriculture and aquaculture practices in the Litani basin. ECONNECT's strategy is to address the above challenges and barriers and achieve its goal while generating knowledge and partnerships for sustainability. It sets out to do this in an integrated, sequential manner, firstly developing a coordinated restoration plan for the target landscape. The objective of the plan will be the establishment of an ecological corridor designed to maximise the ecosystem services generated for farmers and local communities. The plan will be transformative in that it will set out long-term restoration aims and guide the actions of landscape

stakeholders to ensure the protection of biodiversity and reduction of ecosystem degradation. Recognising the need for coordinated action from all stakeholders, the plan will ensure the participation of government, private, technical and local stakeholders, including vulnerable communities, in its design and implementation. A stakeholder committee will be set up to ensure coordination across the landscape and connecting reserves, as well as assuring the sustainability of the restoration interventions. The project will add value, where appropriate and possible, to existing initiatives by government, private sector or NGOs in the selected landscapes. It will identify and demonstrate sustainable practices, while building the capacities of local small-scale farmers and national institutions on ecosystem management and its sustainable use.

ECONNECT will promote land and riverine ecosystem restoration and protection practices to reduce biodiversity loss, land degradation, water scarcity and agrochemical pollution. Activities identified in the restoration plan will be implemented in the area between the two protected areas, with full consent and participation of farmers. The protection and restoration activities will include, among others: restoration of riparian woodlands to increase the functionality of the riverbanks, diversification of rangelands flora, terracing of agricultural lands coupled with the promotion of sustainable agroecological practices, including agroforestry and agro-pastoralism; piloting of sustainable aquaculture-agriculture integrated systems. This will be combined with bio-composting or bio-inputs practices and technologies to reduce soil erosion, flood risk and agrochemical pollution into rivers, with positive impacts on soil fertility, biodiversity and vegetative cover. The unsustainable fishing practices will be reduced through the promotion of environmentally friendly aquaculture practices, such as integrated crop-fish systems, sustainable fish feeding formulation and management, improved In-Pond Raceway Systems and recirculation of aquaculture systems. On-farm demonstration through Farmer Field Schools and Aquaculture Field Schools, in addition to business management capacity building, will support the transfer of capacities through ‘learning by doing’. The project will support the rehabilitation of the Anjar Center for Aquaculture through financing state-of-the art equipment and tools for improving the environmental performance at the site. This activity will contribute to the wider efforts done in promoting the establishment of sustainable aquaculture sector in Lebanon across the whole value chain. This is complemented by the drafting of guidelines for sustainable aquaculture, in collaboration with line Ministries.

Addressing the limited financial incentives to enable sustainable food systems, the project will promote and integrate sustainable agriculture and aquaculture practices into specific value chains (*native* and wild fruits, vegetables, local fish, etc.) with an innovative matching grant, building on the [Al-Shouf Cedar Society \(ACS\) small loan programme](#), which has experienced successful results in the Shouf reserve. ECONNECT GEF funding will provide matching grants to small-scale farmers and producers for the implementation of income-generating projects focusing on local crop species (i.e. crop wild species and local fruits, including Gundelia, walnut, pistachio, pomegranate, sumac, figs, almonds, etc.) and fish value chains, in pursuit of restoration plan outcomes. This will attract new entrants and generate jobs through increased supply and demand for on-farm inputs and services, farm managers, processors, traders, among others.

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[3] <https://worldpopulationreview.com/countries/lebanon-population>

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[5] <https://www.care-international.org/news/lebanon-acute-economic-crisis-forces-families-skip-meals>

[6] <http://www.businessnews.com.lb/cms/Story/StoryDetails/5280/One-million-poor,-highest-rate-in-Bekaa>

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- [10] <https://www.spnl.org/wp-content/uploads/2021/05/Monitoring-of-biodiversity-indicators-in-the-West-Beqaa-27-5-2018-Final.pdf>
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- [19] (1) (PDF) CHAPTER VIII ASSESSMENT OF THE STATUS OF SOIL RESOURCES IN LEBANON (researchgate.net)
- [20] https://www.researchgate.net/publication/228433166_Preliminary_contamination_hazard_assessment_of_land_resources_in_Central_Beka_plain_of_Lebanon
- [21] https://www.researchgate.net/publication/228433166_Preliminary_contamination_hazard_assessment_of_land_resources_in_Central_Beka_plain_of_Lebanon
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- [23] 20220426_lebanon_clear_study_climate_change_and_livelihoods.pdf (aub.edu.lb)
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- [30] <https://www.afd.fr/en/carte-des-projets/bolstering-agriculture-systems-ability-invest-nourish-employ-basatine>

[31] <https://mava-foundation.org/>

[32] <https://www.spnl.org/building-the-ecologic-and-socio-economic-resilience-of-the-shouf-mountain-and-west-beqaa-landscape/>

[33] <http://www.agriculture.gov.lb/getattachment/3446e66a-1147-457b-a75f-08a5ca6b97a3/Assessment-of-the-Commercial-Seafood-Chain-in-Lebanon>

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

Project description

Theory of change

As a result of increased reliance on domestic food production, overexploitation of natural resources in the Upper Litani basin is severely contributing to critical environmental challenges, including land and soil degradation and watershed pollution through indiscriminate use of chemical inputs. Sustainable and integrated agriculture and aquaculture approaches, which enrich the natural base and support ecological connectivity, can contribute to mitigating this pressure, while supporting sustainable livelihoods, building resilience to climate change and improving the nutrition of local communities. However, to achieve these outcomes and address land degradation in the watershed, the following constraints need to be overcome: (i) weak management of natural resources, including Qaraoun Lake, caused by unsustainable food production systems (ii) lack of motivation and knowledge for authorities and stakeholders to plan, manage, and or coordinate ecosystem restoration on sustainable land management and biodiversity conservation, (iii) inadequate adoption of sustainable and integrated practices and technologies in production landscape in areas of high biodiversity value, (iv) limited access to finance to support transitions to sustainable, biodiversity-friendly food systems, (v) limited agriculture and aquaculture post-harvest handling capacity and knowledge combined with limited access to profitable markets, (vi) weak support systems for lesson learned and information sharing.

ECONNECT aims to develop an ecological corridor between the Shouf Biosphere Reserve and Mount Hermon Protected Area to restore heavily degraded lands and improve ecological connectivity through the restoration of different ecosystems, combined with the promotion of sustainable agriculture and aquaculture practices. Enhanced ecosystem services resulting from proposed activities will strengthen smallholder's climate resilience and reduce pollution in the watershed, bringing essential benefits for the country's emerging freshwater aquaculture sector.

The restoration work will ensure the long-term resilience of agroecosystem within the context of a changing climate, affecting the drivers of degradation. In terms of crop production, climate change will determine the loss of genetic intra/inter-specific diversity, further undermining the resilience of crops. The project will counteract this phenomenon through an integrated approach, including ecological restoration using wild crops, the adoption of adaptation criteria in the production of seedlings, as well as the spatial zoning, contributing to a better distribution of species in the landscape and increased resistance to drought and pests. Similarly, extreme rainfall events will increase soil erosion, reduce fertility, and lower infiltration. The project will counteract these effects through the expansion of agroforestry and conservation agriculture to conserve soils, combined with windbreaking measures, such as hedgerows, to mitigate the impact of extreme rainfalls. The adoption of organic agriculture and restoration of riparian woodlands will further prevent the risk of erratic precipitations increasing the dispersion of chemical pollutants on land and water. In terms of forest, heatwaves and drought will cause forest dieback and wildfire leading to habitat fragmentation and forest loss. The project will ensure protect the

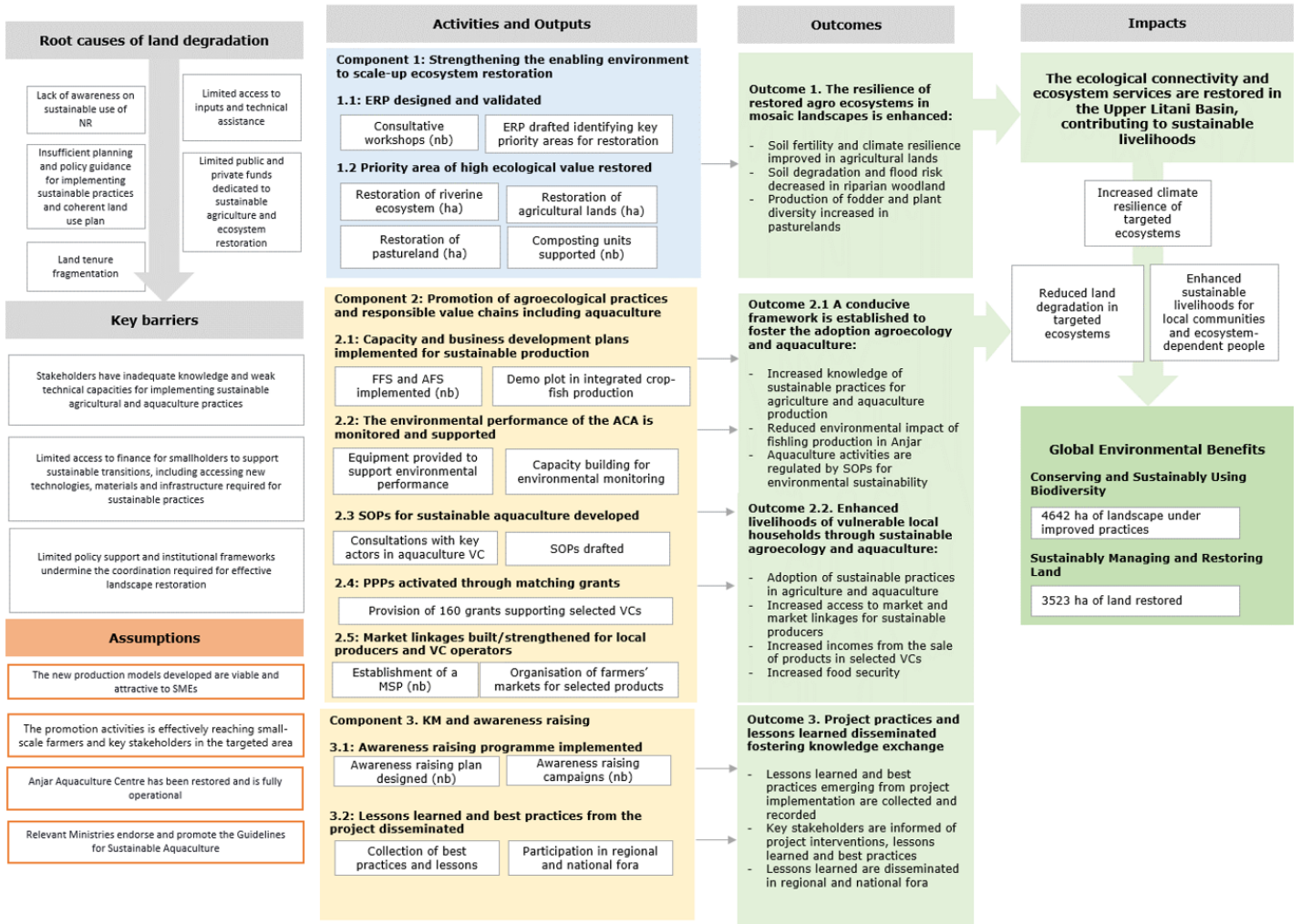
long-term resilience of forests through the expansion of mosaic landscapes and biomass management to reduce the risk of wildfires. Similarly, adaptive reforestation will increase species and ecological diversity of forest habitats. Heatwaves and droughts will further affect grazing lands, contributing to their degradation in combination with increased anthropogenic pressure. ECONNECT will prevent this risk by establishing tree islands in the pastures and increasing the production of woody fodder to alleviate the pressure on grass. Pressure on pasturelands will be further reduced through the rationalisation of grazing and other measures of livestock management.

The targeted project outcomes depend on the following set of assumptions: (i) the new productive models developed are viable and attractive to Small and Medium Enterprises (SMEs), (ii) the promotion of project activities effectively reaches small-scale farmers and key stakeholders in the target area, (iii) the ACA has been restored and is fully operational, (iv) relevant Ministries endorse and promote the adoption of the SOPs for sustainable aquaculture.

Implementation Arrangements

The project will be implemented by the NGO Arz El Shouf, the primary entity responsible for the management of the Shouf Biosphere Reserve, in collaboration with local partners. Arz El Shouf will be responsible for the overall project implementation, relying on its current project management unit. In terms of activities, under component 1, the ERP will be designed through consultative workshops and the involvement of key stakeholders. Restoration activities will be implemented by Arz El Shouf in collaboration with local entities, such as the Lebanese Reforestation Initiative (LRI). Under component 2, FFS and AFS will be implemented with the support of FAO, due to its longstanding experience in developing such activities. The development of aquaculture activities will also benefit from the technical support of Balamand University. The provision of grants will rely on the managing structure established by Arz El Shouf for the provision of Cedar Loans. A detailed due diligence on Arz El Shouf will be conducted at design stage to assess their capacity to manage and monitor the environmental and social risks connected with external financing. Finally, the development and dissemination of SOPs for sustainable aquaculture will entail a strong coordination with relevant Ministries.

Project Theory of Change (ToC)



Project Components

Component 1: Strengthening the enabling environment to scale-up ecosystem restoration in degraded mosaic landscapes

This component will support the design of an ecosystem restoration plan in the landscape of the Upper Litani watershed and the implementation of field restoration interventions in priority sites identified through the planning exercise. The ecosystem restoration plan (ERP) will be managed by the Al-Shouf Cedar Society (ACS) NGO, working in the Shouf Biosphere Reserve (SBR), building on their experience and similar landscape management plan exercises that are currently being developed in the SBR and Mount Hermon Protected Area (MHPA) through internationally supported projects. The ERP for the Upper Litani Watershed will upscale these efforts, connecting the two protected areas through a landscape where depleted patches of natural and semi-natural ecosystems coexist with extensive and intensive agriculture, rangelands, and a network of towns and villages, in a typical Mediterranean-type mosaic pattern. The final aim of the exercise is to: (i) reach a shared, science-based vision among all concerned stakeholders on a land management model that will restore and preserve biodiversity and ecosystem services, while supporting sustainable agricultural productions and improve livelihoods, and (ii) implement priority restoration actions while providing local actors – authorities, private sector and the civil society – with a clear road map for the full, long-term implementation of the plan beyond the lifetime of the project. By doing so, the project seeks to address the current lack of coherent planning in the watershed contributing to increased land degradation, pollution, and biodiversity loss.

Outcome 1.1: The resilience of restored agro ecosystems in mosaic landscapes is enhanced, contributing to biodiversity connectivity and sustainable livelihoods

This outcome will establish the foundations for the ecological corridor and sustainable food systems activities. Sub-component 1.1 foresees the setup of a design team for the ecosystem restoration plan (ERP), followed by participatory planning workshops that will bring together representatives from the local society, including small-scale farmers and pastoralists, local entrepreneurs, the public sector, and the civil society to map out the area and the restoration hotspots, ensuring a gender balanced exercise. This process will also address issues over competing land uses and land tenure, facilitated by land tenure diagnostic tools^{[1]33}. The innovative Diversity for Restoration tool^{[2]34} will also aid the choice of suitable species for restoration and value chain development, linking to component 2, based on their adaptability to the local environment and future climate scenarios. The workshops will feed into the draft ERP. The ERP will cover the whole landscape, identifying priority areas where the restoration work will take place during the project, and an exhaustive menu of possible interventions (including ecological restoration interventions to increase the extension and improve the quality of natural habitats, the restoration of agricultural terraces in cultivated lands, the improved management of biomass and agricultural waste, the reforestation of riverine forests, etc.), both in the priority sites and in the whole landscape. These will be translated into a user-friendly language and set of maps to facilitate understanding and buy-in by interested parties, such as farmers and communities within the project areas, municipality officers, private sector entities, and civil society organisations, among others. The ERP will build on previous restoration plans and on the existence of solid knowledge and best practices on Forest and Landscape Restoration (FLR) in the Shouf Biosphere Reserve (SBR) and other sites of the landscape. The ERP will be critical in informing the restoration, setting the basis for the establishment of the integrated aquaculture and agriculture (IAA) pilot and value chain activities, set out in component 2. For example, the plan will highlight areas where agriculture could have the greatest impact on biodiversity or, on the contrary, where the restoration of biodiversity and ecosystem services can have a stronger impact on the yields of sustainable agriculture initiatives. The project will establish a multi-stakeholder working group that

will act as the informal steering committee of the ERP, with the critical task of facilitating dialogues and buy-in, assessing performance and ensuring the sustainability and upscaling of the restoration actions. It will also support building local smallholder coalitions and cross-sector alliances to work together to address shared challenges in implementing the restoration plan, as well as promoting sustainable governance of the restoration activities beyond the project. Once the ERP is finalised and validated, sub-component 1.2 envisages the implementation of the restoration interventions in parts of the landscapes that the plan has classified as priority ones, based on the fragile status of the ecosystems, their strategic location to ensure landscape connectivity, or their high potential for replication. The actual restoration work will be carried out by a team of experts/practitioners led by SBR, with local workers and with inputs and collaboration from other national and local institutions, looking specifically at NGOs already working in the project area. All the activities will be carried out in the area between the two protected areas (PAs), dependent on land tenure arrangements, consent and participation of farmers and landowners. Keeping in mind the time and budget limitations, it is foreseen that the project will be able to achieve the restoration of approximately 3,523 hectares of land within the identified landscape. Although the detailed nature of the interventions will only be agreed during the formulation of the ERP, it is foreseen – based on the information gathered so far and on the experience of project partners – that the work will mostly comprise three types of interventions:

1. **Restoration of riverine ecosystems.** These interventions will address the riverbanks and wetlands of the Litani, or their immediate surroundings. They will include: (i) planting of native trees and shrubs, especially species of the Genus *Salix*, *Populus*, *Alnus*, *Quercus*, *Fraxinus* and others to be identified. The restored riparian woodlands will enrich plant and animal biodiversity, while helping regaining riverbank functionality and reducing soil erosion and flood risk. A healthier riparian ecosystem will also improve the habitat of migratory birds moving through the Eastern Mediterranean Flyway, and it will facilitate the recolonisation of flagship species such the Eurasian Otter (*Lutra lutra*) that was recently extinct in the Ammiq wetland but still inhabits the Anjar area upstream, where it is the target of a specific conservation effort.
2. **Restoration of extensive agriculture systems.** The restoration of private plots devoted to extensive agriculture may include measures to restore soil fertility and stop/reverse land degradation, the introduction of new crop species and varieties, the provision of improved fruit trees varieties grafted on rootstocks of native wild species relatives, including Gundelia, walnut, pistachio, pomegranate, sumac, figs, almonds and others, and interventions such as the establishment of “biodiversity hedgerows” that will act as windbreaks while increasing biodiversity and providing the habitat of useful species such as bats and insectivorous birds.
3. **Restoration of pastureland.** According to the preliminary findings during PIF design, pasturelands in the project area are being degraded at an increasingly fast pace due to lack of management, excessive pressure, and the recent introduction of new breeds - especially goats - that are not well adapted to local conditions. Restoration interventions may include the enrichment of degraded pastures with selected fodder species, temporary fencing, rotational grazing and the creation of “tree islands” to increase biodiversity and ultimately provide shade and additional fodder.

Prior to, and during the early implementation stages of the ERP, the project team will secure the availability of required inputs – especially high-quality seedlings and compost – required for the restoration actions. Strategic partnerships will be forged with the Association of Lebanese Nurseries and other private companies active in the Bekaa Valley. Building on the partnerships developed in the SBR, protocols will be negotiated for the provision of climate adapted seedlings of diverse native tree/shrub/crop (vegetables, herbs, aromatic plants) species. A network of small composting units will also be established in strategic locations of the project area, as an alternative source of organic fertilizer for local farmers, improving soil fertility and reducing demand for chemical fertilisers. This action will build on the best practice knowledge and lessons learned from previous initiatives in the Shouf Reserve. A series of capacity building activities will also be rolled out to stakeholders including land users, producers, protected area managers, and other private and public stakeholders in biodiversity conservation and sustainable land and riparian management practices with the goal of implementing the actions identified in the restoration plan. Community facilitators, or extension service agents, will be identified and trained as trainers to ensure that restoration actions are sustained beyond the lifetime of the project.

Component 2: Promotion of agroecological and sustainable aquaculture practices and responsible value chains

Building on component 1, which sets the framework for restorative agriculture across the landscape, component 2 focuses on the implementation and promotion of sustainable agriculture and aquaculture production activities, which ensures the protection of natural resources and sustainable use of biodiversity, contributing to ecological connectivity. The component will support the establishment of a network of committed farmers and fishers, producers, and business operators including businesswomen, engaged in green value chains and sustainable production. Support interventions will take place along the different steps of the value chain to strengthen and innovate the economy linked to the primary sector in the project area identified in the ERP. The component will enhance food and nutrition security at a time of serious hardship for the country. It is responding to the demand for sustainable and biodiversity-friendly agriculture and aquaculture products at reasonable prices in the local and national markets, as well as the specific requests of local farmers and fishers during the PIF design phase. Through project activities, native and wild species relatives' trees, improved fruit varieties, new crop species and varieties, and local fish species diversification will be promoted, as well as environmentally friendly integrated agriculture and aquaculture (IAA) production systems, from which water used for fish farming will be reused to irrigate crops and optimize water use. Special attention will be paid to the Anjar Centre for Aquaculture to support its environmental sustainability vis a vis the production of fishlings. In this regard, the component aims to (i) build capacity and strengthen infrastructures in place for a conducive framework to agroecology and aquaculture in priority areas identified by the ERP and (ii) enhance livelihoods of vulnerable local households through sustainable agroecology and aquaculture. The component is articulated in 5 sub-components, with sub-component 2.1 focusing on capacity building and business plan preparation, sub-component 2.2 working in parallel on the environmental performance of the fishling production of the ACA, sub-component 2.3 focusing on the development of SOPs and guidelines for sustainable aquaculture, sub-component 2.4 establishing a system of grants to support the implementation of the business plans and sub-component 2.5 on strengthening market linkages for the sale of products from selected VCs.

Outcome 2.1 A conducive framework is established to foster the adoption agroecology and aquaculture in priority areas identified by the ERP

This outcome 2.1 will address the community of farmers, fishers and producers of the project area identified in ERP (component 1) and support sustainable agriculture practices with environmentally friendly agriculture and IAA systems. In-depth research will be carried out during the full project design phase and in collaboration with the local municipalities, to better profile the primary sector and pre-identify those farmers and fishers who will be the beneficiaries of this project component, ensuring an equal participation of women. Interested farmers and fishers will be invited to join the project's capacity building programmes, including a Farmers' Field Schools (FFS) on the sustainable agroecology practices shaped along the [FAO farmer field schools](#) and [CARE farmer field and business school](#) guidelines. The Aquaculture Field Schools (AFS) programme will be developed following [IFAD, World Fish Centre and CGIAR Integrated aquaculture-agriculture: Fish culture and plant crops module for arid areas Farmers](#) guide and [FAO Fisheries, aquaculture and Farmer Field Schools](#) guidelines. Funding will go towards five separate FFS and five AFS activities, which will be carried out by facilitators trained on the FAO approach, with previous experience in sustainable agriculture capacity building in the Shouf Reserve. Currently, there are no operating aquaculture farms in the target area. Therefore, an initial investment will be the establishment of a demonstration site for aquaculture and IAA systems in the Qaraoun area, based on a location and environmental and climatic factors identified in the ERP. Key sustainable practices to be promoted on the demonstration site include: i) an integrated agriculture and Aquaculture (IAA) production system to facilitate the reuse of nutrient-rich water from the pond of fish culture for agriculture irrigation; ii) improved In-Pond Raceway Systems (IPRS) technology using locally available construction materials for water efficient; iii) rainbow trout culture systems; iv) recirculation of aquaculture systems (RAS) using green energy; and v) sustainable and quality fish feeding formulation using locally available feed ingredients, including exploring the prospects of raising insects into feed formula. Business training activities will build smallholders entrepreneurship and business managerial capacities while shifting the traditional focus on improved productivity and scale up the business case for agroecological and sustainable aquaculture production. FFS and AFS will be executed through an 'action-learning' approach focusing on the development of business plans and marketing strategies development. A strong emphasis will be put on gender and women empowerment to promote an equitable and inclusive agricultural system.

The project will also provide specific support to the Anjar Centre for Aquaculture (ACA) to ensure its environmental sustainability and make it as a reference center for aquaculture in Lebanon. ECONNECT will complement a UNDP project aimed at regaining the centre's functionality, after years of disuse, to produce and supply fingerlings to growers. However, additional financial support is required for the environmental monitoring and management of ACA. The renewed ACA facility will be instrumental to helping to achieve the aquaculture subcomponent of the project, to supply beneficiaries with fingerlings; and ensure sustainable environmental monitoring for water efficiency, but also to provide the needed technical

assistance and backup. The project will build on IFAD's strong track record of supporting small scale aquaculture and integrated agriculture-aquaculture (IAA) at smallholder level, in countries such as Egypt and Ethiopia. Working in partnerships with the MoE, MoA and ACA, this part of the project will include operational support to improve the environmental performance of the Anjar Centre, coupled with the required capacity building activities, based on a needs analysis to be conducted at design stage. Further, [environmental monitoring guidelines](#)^{[3]³⁵} will be developed for improved water efficiency at the ACA and help inform water and environmental pollution status.

The component is transformative in how it interlinks with national policy on aquaculture. Under sub-component 2.1, guidelines and standard operating procedures (SOPs) will be developed based on technical and local knowledge and innovations piloted in component 2, with a focus on social inclusion. As Lebanon invests in the aquaculture sector, the documents will be critical in guiding policy makers, farmers and relevant stakeholders in implementing different types of aquaculture systems, including IAA, as well as supporting the environmental management of these systems, notably with regards to feeding, water quality and disease management. The guidelines will also feed back into project activities, ensuring that aquaculture production is regulated and environmentally sustainable.

Outcome 2.2. Enhanced livelihoods of vulnerable local households through sustainable agroecology and aquaculture

Outcome 2.2 outlines the financial support needed to couple the capacity development efforts and create the network of sustainable and innovative small-scale agriculture and aquaculture business initiatives that are one of the main project objectives. The initiatives to be sustained will stem from the ecosystem restoration planning of Component 1, as well as the scoping research work to be carried out at full project design and the requests/proposals of the beneficiaries during the capacity building work of outcome 2.1. [A matching grants scheme](#) of the project, inspired by the existing [Al-Shouf Cedar Society \(ACS\) small loan programme](#) will be rolled out. The scheme started in 2013 and has until today served 198 beneficiaries, adapting to the current financial crisis, and targeting actions related to rural development such as land restoration and post-harvest activities. Based on this, the project will produce the documents needed to support the grant-awarding process: operational manual, investing support agreement template, and template for grant application including financial part. The projects grants will have a maximum amount of 5,000 USD/grant, which will have to be matched by the applicant with another 5,000 USD half cash and half in-kind contribution. Priority will be given to women, youth, and stakeholders that are strongly involved in other project's initiatives, aiming at a target of 40% women benefitting from this activity. Along the project's lifetime, a total of approximately 160 grants will be awarded, or a total of 800,000 USD. It is anticipated that the awarded grants, combined with previous business and technical trainings, will give life to a broad range of initiatives linked to sustainable agriculture and aquaculture, including (i) purchase of agricultural assets and inputs including seedlings for new crops and fruit trees grafted on wild relatives, (ii) actions and work to stop/revert soil degradation, aquaculture water pollution, and improve fertility, (iii) processing units and actions needed to add value to agriculture produce (pasteurizers, mixing tanks, juice filters, kits for honey and jam production, etc.), and aquaculture produce (solar oven, dryer, cooler, refrigerator, etc.) (iv) acquisition of infrastructure and equipment for small scale aquaculture including materials for ponds, fish nets etc, (v) provisioning of local fingerlings and diversify feeding ingredients for one production cycle, after which fish farmers can reinvest their earnings from fish sale. The selected project grantees must be attendees of farmer field schools (FFS) and aquaculture field schools (AFS) and have attended business skills training to have the practical knowhow and knowledge on how to sustainably manage the business aspects of their production and value chain work and help manage business risks.

To enhance farmer's links to markets, a [multi-stakeholder platform \(MSP\)](#) will be developed to link various value chain actors in the project area, inclusive of small-scale farmers, producers' groups, farmer organizations, local businesses, local authorities, investors producers, intermediators, and end-market players in the agriculture and aquaculture sectors, with special attention to female organisations. The platform will not only increase opportunities for smallholders by promoting commercial links between different actors in a value chain, negotiating contracts and helping them access finance, but also facilitate innovative processes to market products and encourage private sector partnerships. The platform will forge partnerships with the profitable eco-tourism and hospitality sectors, especially in the Shouf and Mount Hermon Protected Areas, providing organic and sustainably produced agricultural and fish products to hotels and restaurants, who otherwise are forced to travel to wholesale markets in the coastal cities to buy their produce. This action builds on the consolidated experience of the Shouf Biosphere Reserve in the western side of the protected area, which has fostered the the creation/renovation of a small farmers' market that has become a reference in the region and experiences a steady flow of visitors and buyers from all Lebanon. The project, through the guidance of the MSP, will expand the Shouf's farmers' market

to serve the target landscape, providing opportunities to link beneficiary small producers with consumers interested in healthy, traditional food.

Component 3: Knowledge management and awareness raising

Component 3 will ensure that awareness of project activities is fostered through a number of channels and the knowledge generated by the project are collected and shared. Stakeholders mobilized under Components 1 and 2 will equally be of importance under Component 3, as best practices and lessons learned from project recipients will be captured and disseminated widely.

Outcome 3.1 Project practices and lessons learned disseminated among relevant audiences through awareness raising and knowledge exchange at the national and international level fostering learning

Under sub-component 3.1, an awareness and extension program will be designed by ACS, in collaboration with the main partners. The programme will be tightly tailored to the social reality of the project area, and it will raise awareness on the issues tackled by the project, always with a positive approach and striving to position the ecological corridor as a place where positive change and better living conditions can materialize, in harmony with a healthier environment. The subcomponent will build on the extensive experience of Al Shouf Cedar Society (ACS) on communication, awareness raising and education at international, national, and community levels. It is envisaged that the activities will include: the organisation of events in municipalities, social media and podcasts, participation at local festivals, organisation of extracurricular activities for local children and a common platform for sharing data/knowledge in the form of an interactive map showing the restored sites, project progress etc.

Furthermore, knowledge exchange activities will be executed under sub-component 3.2 through regional partnerships and South-South and Triangular Cooperation (SSTC). This includes participation in regional fora in the framework of existing cross-Mediterranean networks led by international organisations, including MedForVal^{[4]36} and Sylva Mediterranean^{[5]37}, of which the Shouf Reserve is an active member. IFAD's engagement with the UN Decade on Ecosystem Restoration will create opportunities to scale up and replicate results and lessons learned emerging from the project activities, while also learning from similar initiatives. Building on experiences of IFAD funded investments in aquaculture and restoration both globally and regionally, South-South and Triangular Cooperation study tours and exchanges will be supported. Due to the knowledge gaps around an integrated agriculture-aquaculture (IAA) systems in the watershed, these tours and direct communication between farmers with technical experts working on similar projects, notably the [ACliSAT](#) project in Egypt being implemented by WorldFish^{[6]38}, will strengthen implementation and management of these approaches.

Monitoring and Evaluation

A gender responsive M&E system will include both quantitative and qualitative analyses and impact assessments at project mid-term and completion. The project will also engage with Lebanese universities which have participated in projects in the Shouf reserve for specialised studies, likely on improved soil health, water quality in rivers and a cost-benefit analysis of sustainable agriculture. Collection and dissemination of good practices and lessons learned will be achieved through the M&E system, but also community-level lesson learning workshops. In such spaces, small-scale farmers, and fishers, as well as local communities will present progress, challenges faced, and lessons learned. Those with the best "stories of change" will be assisted to present at national and regional fora.

Global Environmental Benefits

ECONNECT will support (i) restoration of priority ecosystems, (ii) sustainable use of biodiversity, (iii) improved climate resilience and (iv) biodiversity conservation and improved economic permanence of the agriculture and aquaculture sectors in the Upper Litani Watershed.

Through establishing and implementing plans for effective restoration of priority zones based on sound scientific and participatory evidence, ECONNECT will contribute to reversing land degradation and thus protect the ecosystem services the landscape provides for communities and the local environment, including the reduction of pollution into the watershed's rivers and lakes. The planting of native species, which are adapted to the rapidly changing climate will strengthen the resilience of ecosystems to climate shocks, and ensure the permanence of the restoration programme.

The project will also enhance the protection of endangered species through the establishment of a well-defined ecological corridor. Further, it will promote the sustainable use of biodiversity through native and underutilised crop value chain activities, which will provide farmers and local communities with options to adapt to a changing climate and strengthen their food and nutritional security. The resilience of local communities in the watershed will be further enhanced through climate-sensitive activities at community level, such as the establishment of a pilot IAA system and strengthened water quality monitoring to address expected biophysical effects of climate change in freshwater ponds (less dissolved oxygen, increased disease incidences etc).

The project will take a landscape management approach, informed by lessons learned on the interlinked challenges of poverty, ecosystem services, climate change, biodiversity conservation, institutional performance, governance, and community-based engagement and management.

ECONNECT will engage the local communities and the private sector in locally-driven planning and replicable, innovative investment actions. It will generate environmental benefits in line with the following GEF 8 core indicators:^{[7]39}

- Area of land restored
- Area of landscape under improved management practices:

Additional Global Environmental Benefits:

- Enhanced sustainable livelihoods for local communities and ecosystem-dependent people;
- Forest conservation and management with sustained carbon sequestration and the avoidance of greenhouse gas emissions;
- Conservation and enhanced carbon stocks in agriculture, forestry, and other land use

Role of the private sector: the project will actively support the development of collaborative working partnerships between private sector businesses (e.g. agricultural producers, seed nurseries, processors) and local smallholders. Private sector partnerships will cut across the various facets of the project. In designing the ERP, the private sector will have an active voice in identifying key value chains with marketing potential. This will be complemented through a needs and market assessment. Similarly, embedding the production of seedlings in existing private nurseries will underpin the sustainability of the restoration actions by ensuring that the production of local and climate-adapted varieties is sustained beyond the project's lifetime. Private lands are also part or adjacent to the corridor and will be included in the ERP, fostering the participation of private producers in the restoration efforts. A polycentric governance model will be promoted for the restoration actions, with a committee featuring public, private and community-based actors set up to ensure coordination of the activities and facilitate inclusive dialogues. Under Component 2, . A system of matching grant will ensure the development of small businesses related to sustainable production or agri-business. For aquaculture, the implementing entity will identify fish producers who express

readiness to test the integrated production approach. Furthermore, ECONNECT will promote market linkages for local enterprises and small-scale producers through a multi-stakeholder platform, designed to encourage investment in the innovative agricultural and processing approaches piloted by the project.

[1] **Example of land tenure diagnostic tool:**

<https://www.worldbank.org/en/programs/land-governance-assessment-framework>

[2] <https://www.etc.uma.es/bioconnect/>

[3] **The guidelines will build on existing [WHO water quality Guidelines, Standards and Health: Assessment of risk and risk management for water-related infectious disease](#) and [Palintest Water Quality Testing Guide for Aquaculture Systems](#).**

[4] Mediterranean Network of High Ecological Value Forests, coordinated by Istituto OIKOS (Italy)

[5] <https://www.fao.org/3/x1880e/x1880e0a.htm>

[6] <https://www.ifad.org/documents/38711624/40968919/ACliSAT+Grant+Design+Document.pdf/d688690a-530c-b7cd-9f2a-8a05d134ab22?t=1559012542000>

https://xdesk.ifad.org/sites/ecg/OPS/sfg/Shared%20Documents/NEN/Lebanon/Lebanon-GEF8/1-Design-PIF/2023-11-07-2nd%20submission/GEF8-11348-Lebanon_ECONNECT-PIF-7Nov23-track.docx - ^[7] At this early stage of project proposal development, GEB indicators can be only approximate. Project preparation activities are particularly geared toward substantiating these indicators in close collaboration with the envisaged stakeholders. They will therefore evolve alongside the proposal in the project preparation phase.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

No

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

The project will coordinate with ongoing initiatives in the project area, building on mutual synergies to achieve local and global benefits. In terms of ecosystem restoration, ECONNECT will coordinate with the multiple initiatives implemented in the SBR. Specifically, it will work in close cooperation with the project RESILAND, funded by the Italian Agency for Development Cooperation (AICS) and ensure that the restoration of agro-sylvo-pastoral ecosystems is coordinated with the ongoing efforts and draws from tested best practices. ECONNECT will further cooperate with the AFD and IFEEL projects, implemented by Arz El Shouf, to support the reforestation of forests in the corridor, with a focus on riparian ecosystems. The project will also coordinate with the afore-mentioned projects plus the Hans Wildorf foundation project to restore abandoned terraces and agricultural lands, working towards restoring their productivity.

In terms of sustainable management of resources, the project will build on the Sustainable Land Management in the Qaraoun Catchment Project (SLMQC), implemented in the municipality of Rashaya by UNDP, and funded by GEF. ECONNECT will specifically build on the master plans developed by the SLMQC project, as a basis to develop its ecosystem restoration plan.

The establishment of the ecological corridor will be coordinated with the BIOCONNECT project, funded by the European Union with the aim of strengthening ecological connectivity between SBR, Mount Hermon, and Sour's beach. The cooperation between the two projects will be critical and ensure a multiplier effect to the benefits achieved. Specifically, the projects will collaborate on the restoration of different ecosystems and on increasing awareness in the targeting communities. Farmers and land-owners will receive training and capacity building to ensure adoption of sustainable practices.

For the aquaculture component, the project will closely cooperate with UNDP, currently working at the rehabilitation of the Anjar Centre for Aquaculture. The successful rehabilitation will be critical to ensure the sustainability of the aquaculture sector in the target area.

Core Indicators

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
3523	0	0	0

Indicator 3.1 Area of degraded agricultural lands under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Cropland	398.00			
Rangeland and pasture	2,200.00			

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
925.00			

Indicator 3.3 Area of natural grass and woodland under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
4642	0	0	0

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
4,642.00			

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Documents (Document(s) that justifies the HCVF)

Title

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	71,400			
Male	68,600			
Total	140,000	0	0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

The primary target group will be individual small-scale farmers and fishers willing to engage in conservation and sustainable use of biodiversity through sustainable agriculture and aquaculture practices, specifically the resource-poor ones. The direct beneficiaries who will receive support from GEF resources will be 140,000 beneficiaries representing 33,333 households. Out of the total number of beneficiaries, 2400 will receive trainings under Component 2 and 160 will receive grants. The proposed targets are based on the costs of achieving the target per beneficiary, land area available in target locations and the total investment available. Women represent at least 40% of people directly involved in project activities and 51% of the total beneficiaries. An appropriate social targeting strategy will be developed, and the targeting performance will be monitored continuously. All people-centred data will be disaggregated by gender and age. A detailed targeting strategy for women, youth, and PwDs will be developed at design. The Global Environment Benefits targets align with the government's national biodiversity strategy and action plan (NBSAPs), Land Degradation Neutrality Targets, the costs of implementation, challenges, and the capacity that will be available to implement the activities.

A total of 500ha will be subject to restoration, following the development of an ecosystem restoration plan (ERP). The sub-indicator are an estimate at the moment, including the three ecosystem targeted (pastureland, forest, cropland). An additional

3942ha will be targeted within the project area and subject to improved practices. Again, the sub-indicator is estimated at the moment, mostly referring to cropland, given the agricultural vocation of the corridor. A total of 115 000 people are expected to benefit from the project.

Risks to Project Preparation and Implementation

Summarize risks that might affect the project preparation and implementation phases and what are the mitigation strategies the project preparation process will undertake to address these (e.g. what alternatives may be considered during project preparation—such as in terms of consultations, role and choice of counterparts, delivery mechanisms, locations in country, flexible design elements, etc.). Identify any of the risks listed below that would call in question the viability of the project during its implementation. Please describe any possible mitigation measures needed. (The risks associated with project design and Theory of Change should be described in the “Project description” section above). The risk rating should reflect the overall risk to project outcomes considering the country setting and ambition of the project. The rating scale is: High, Substantial, Moderate, Low.

Risk Categories	Rating	Comments
Climate	Moderate	<p>The main climate risks to ECONNECT objective include extended drought period, decrease in precipitation due to snow melt, and change in temperature and rainfall. Precipitation is expected to reduce by 4% and up to 10-40% by end of century. Temperatures are expected to increase by 2.0°C by 2050 with an increase in the number of very hot days (over 35°C) by 21 days or 56 days by the end of the century. Increase in dry spells and high temperatures may lead to low production for both agriculture and aquaculture, land degradation, increase in pests and diseases, soil erosion impacting water availability and soil fertility. The country will be more prone to natural disasters, such as flooding and wildfires.</p> <p>ECONNECT will employ an adaptive management approach to promote sustainable and climate and biodiversity friendly agriculture (agroecology) and integrated aquaculture practices to help offset the climate risks. Active restoration interventions will be timed to maximise water availability for plants</p>

Environment and Social	Moderate	<p>The environmental vulnerabilities for ECONNECT activities include soil erosion, due to increased drought or dry conditions, and water scarcity. The current use of agrochemical fertilizers is a key driver of pollution in some locations. The project ECONNECT seeks to promote biodiversity and environmentally friendly approaches to help offset the environmental risks (e.g. water-saving technologies and practices, nature-based solutions to reduce reliance on chemical inputs). A detailed IFAD Environmental & Social impact assessment will be undertaken at the beginning of project implementation before starting any on-the-ground interventions</p>
Political and Governance	Moderate	<p>The current political crisis as well as changes in the government priorities may result in delays or ineffective implementation of the project interventions. The country experiences political instability and a high influx of refugees, particularly from neighbouring countries, that could affect government priorities in biodiversity conservation and land degradation neutrality. ECONNECT is aligned with the government development goals and maintains an active dialogue with stakeholders and relevant Ministries. In parallel, the project collaborates extensively with decentralised authorities in the Litani rural areas. This will engender solid political will to support the project in target regions, a main factor that will enhance its success.</p>
Macro-economic	High	<p>The niche nature of biodiversity-friendly income generating businesses may result in low demand for such goods (local wild crop</p>

		<p>species including fruits) as well as potential volatility in global markets. To mitigate this risk, ECONNECT will focus on diversifying the commercialization opportunities for biodiversity-friendly products and building local capacity to respond to market changes. By identifying potential markets and strengthening value chains, the project aims to reduce the reliance on a single market and increase the resilience of local enterprises to market shocks. ECONNECT will also provide support for partnerships for financing small businesses of selected targeted producer groups and will provide matching grants for co-investment in biodiversity-friendly micro and small businesses. This will increase the financial sustainability of the activities. In parallel, the establishment of a multi-stakeholder platform under component 2 will enhance the marketing of biodiversity-friendly and local products. Notwithstanding the importance of counterpart finance from the Government of Lebanon, the project will take strides to mobilise counterpart finance from the private sector. This should insulate the project to some degree from the uncertainties embedded in the macroeconomic climate of the country.</p>
Strategies and Policies	Moderate	<p>The policy environment immediate to ECONNECT is favourable, as the comprehensive national biodiversity strategy action plan, the national restoration work plans and programmes initiatives; national aquaculture initiatives; Lebanon national agriculture strategy; national action plan for combating degradation and desertification</p>

		<p>policies underscore key tenants of the project. ECONNECT will support the will support the design of an ecosystem restoration plan in the Upper Litani watershed inspired by the globally accepted FLR criteria</p>
<p>Technical design of project or program</p>	<p>Low</p>	<p>Technical design risks are identified as low. IFAD has an extensive quality assurance mechanism to ensure projects are designed appropriately and in line with GEF standards. ECONNECT technical design has benefitted from consultations with government agencies and has received political will. The design of the PIF has been informed by local stakeholders and drew largely on activities piloted in the Shouf area. The engagement with other stakeholders will continue at PPG and during implementation.</p>
<p>Institutional capacity for implementation and sustainability</p>	<p>Low</p>	<p>Institutional capacity for implementation and sustainability risks are identified as low. Lack of institutional expertise at local, national and regional level to deliver capacity building activities.. Comprehensive and detailed consultations among relevant institutions will be undertaken throughout development and implementation of the project. A capacity needs assessment of relevant institutions will be undertaken during project preparation to inform capacity-building during project implementation, which will also support project sustainability. ECONNECT will support capacity building where needed. The involvement of key private sector will be instrumental in mitigating this risk.</p>

Fiduciary: Financial Management and Procurement	High	<p>Financial Management and Procurement risks correspond to any potential mismanagement of funds. As GEF implementing agency, IFAD will ensure that all financial management and procurement processes are conducted as per agreed fiduciary standards. The operational capacities of tentative execution partners will be assessed during the design of ECONNECT. Financial audits will be carried out on a regular basis to avoid any potential misuse of funding</p>
Stakeholder Engagement	Low	<p>Cultural constraints and family responsibilities may lead to a limited participation of woman in project activities. ECONNECT will pay special attention to social and cultural barriers preventing women from effectively participating in the project. Targets for women involvement will be set at the PPG stage. The project will focus on promoting the participation of women, especially in Farmer and Aquaculture Field and Business Schools, trainings, workshops, and piloting income generating business projects (there are opportunities for women-led small business development under component 2). Female beneficiaries will also play a key role in multi-stakeholder platforms and processes, contributing to the identification of needs with regards to the restoration activities. ECONNECT will support an extensive stakeholder engagement will continue to be undertaken during project preparation and implementation, with special focus on inclusive engagement processes for women, youth and other vulnerable groups. This will be informed by the development of</p>

		detailed stakeholder engagement plans.
Other		
Financial Risks for NGI projects		
Overall Risk Rating	Moderate	The risks associated with ECONNECT may be classified under the Moderate bracket because of the vulnerability of the agriculture and aquaculture sub-sector and the target areas selected. Biodiversity loss, land degradation, food insecurity and malnutrition have always been major issues in Lebanon, which are amplified by the effects of climate change.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

The project design is consistent with the following objectives of the GEF8 Land degradation focal area, as reflected in the GEF8 document. This project is aligned with:

Land Degradation Objective 1: Avoid and reduce land degradation through sustainable land management (SLM) and Objective 2: Reverse land degradation through landscape restoration.

- **LD-1: Avoid and reduce land degradation through sustainable land management (SLM).** The project will adopt agroecological practices including agroforestry, crop diversification, as well as sustainable integrated crop and fish production, and increase species diversity in agricultural farms, thus contributing to improved soil quality and habitat connectivity and flow of ecosystem services.

LD 2: Reverse land degradation through landscape restoration. The project will focus on strengthening the resilience of ecosystems and assist the recovery of degraded landscapes, through the restoration of riverine and rangeland ecosystems. Degraded agricultural lands will be rehabilitated to restore their productivity.

Further the project is consistent with relevant conventions and national priorities:

National Restoration Work Plans and Programmes initiatives

In 2014, the MoA began the process of developing the National Afforestation/Reforestation Program (NARP), which aims at increasing forest cover across 70,000 hectares to increase the country's forest cover from 13% to 20% by 2030. In 2015, the MoA launched the main instrument for implementing its work on national forestry policy: the first National Forest Program (NFP). It identifies the government's priority intervention areas in the forestry sector and beyond with the aim of engaging public and private actors in sustainably managing Lebanese forest resources.

National Aquaculture Initiatives

The MoA has prioritised the sustainable development of Lebanese aquaculture as a key source of employment and food security, while reducing pressures on terrestrial natural resources. Working closely with FAO and the UNDP, the MoA has undertaken studies, taking stock of the aquaculture farms currently operating in the country, gathering information on the species raised, final products sold, and feeds and chemicals used, among other key factors. The plan for aquaculture also includes the drafting of a new fisheries and aquaculture bill which is set for finalisation in 2023.

NBSAPs

Lebanon is currently updating its NBSAPs in line with the Kunming-Montreal Biodiversity Framework, which is expected to be finalised by 2024. Its most recent NBSAP from 2015 presents sustainable management and use of natural ecosystems and resources as well as ecosystem restoration as priority areas. Lebanon set a number of targets on ecosystem restoration and sustainable use of natural resources. By 2030, rehabilitation plans should be implemented in at least 20% of degraded sites (Target 7, NBSAP 2015), while Lebanon also aims for 50% of all-natural ecosystems to be sustainably managed and properly considered in spatial planning implementation (Target 6, NBSAP 2015). Recognising the high vulnerability of vulnerable communities and ecosystems to intensifying climate change, it also seeks to identify vulnerable areas and develop and implement adaptation plans (Target 14, NBSAP 2015). To achieve its targets on biodiversity, Lebanon intends to mobilize the private sector to implement plans for sustainable consumption and production to mitigate or prevent negative impacts on ecosystems' carrying capacity through the use of natural resources (Target 16, NBSAP 2015) and develop and implement a robust resource mobilization strategy for financing biodiversity initiatives (Target 18, NBSAP 2015). The project would align with a number of targets in the Kunming-Montreal Global Biodiversity Framework, most notably target 2 on Effective restoration of at least 30% of degraded terrestrial, inland water, and coastal/marine ecosystems by 2030; target 10 on sustainable management of agriculture, aquaculture, fisheries, and forestry, target 14 on mainstreaming biodiversity across public and private activities and target 20 on capacity building for the for the conservation and sustainable use of biodiversity.

Lebanon National Agriculture Strategy (NAS) 2020 – 2025

The national ministry developed its latest NAS in 2019, flagging a number of challenges in developing the agri-food sector to make the sector a main contributor to the achievement of food security, while ensuring sustainable management of natural resources. The NAS is structured around five pillars, which includes Pillar 4: Improving climate change adaptation and sustainable management of agrifood systems and natural resources. Interventions encouraged under this pillar include promoting sustainable use of natural resources (soil, pastures, forests and fisheries) and increasing climate change adaptation through promoting climate smart agriculture techniques such as conservation agriculture, smart planting, afforestation and reforestation.

National Action Plan for combating degradation and desertification

Lebanon signed and ratified the UNCCD and has set targets on combatting land degradation and dealing with its root causes. In 2003, the government a National Action Program (NAP) to guide long-term implementation of efforts towards its UNCCD commitments. The document sets out actions plans to address the lack of technical know-how of farmers and authorities alike in supporting sustainable agriculture, while seeking to resolve and address property rights issues. It also proposes actions plans for rangeland management and for leveraging the economic potential of sustainable land management and crop diversity to alleviate poverty. The MoA is currently working to align the NAP with the UNCCD ten-year strategy in the context of the new Sustainable Development Goal 15.

Land Degradation Neutrality (LDN) Targets:

In 2018 the Government of Lebanon, under the leadership of the Ministry of Agriculture, has officially adopted three voluntary LDN targets, with the aim of combating land degradation and desertification. By 2030, the country has committed to:

1. Improve Land Productivity and Soil Organic Carbon stock, in forests, croplands and grasslands
2. Improve the mosaic of the landscape, including forests, other wooded lands, grasslands and croplands and limit their conversion to other land covers
3. Enhance the role of forests and trees in urban and rural areas in providing sustainable products and services.

Several measures will be employed, including the restoration of forest landscape through reforestation and afforestation, the implementation of sustainable forest management practices on all public forests, combined with a promotion of such approach in private forests, the restoration of grasslands in high mountain areas, and the promotion of sustainable agricultural practices on at least 80,000 ha. Similarly, a key measure would be the provision of financial incentives for the implementation of sustainable land management practices, mainstreaming adaptation to climate change and biodiversity conservation.

Contribution to the Kunming-Montreal Global Biodiversity Framework

2030 Targets of the Post-2020 Global Biodiversity Framework	ECONNECT project links
<p>TARGET 2</p> <p>Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity</p>	<p>ECONNECT project will contribute to enhancing ecological connectivity and integrity through a mosaic of sustainable agriculture, integrated aquaculture and pastureland and riparian restoration plan and practices; establishing compositing units and partnering with existing seedling nurseries.</p>
<p>TARGET 5</p> <p>Ensure that the use, harvesting and trade of wild species is sustainable, safe and legal, preventing overexploitation, minimizing impacts on non-target species and ecosystems, and reducing the risk of pathogen spill over, applying the ecosystem approach, while respecting and protecting customary sustainable use by indigenous peoples and local communities.</p>	<p>The project will highly contribute to the promotion of sustainable agriculture and aquaculture practices mainly through component 1 and 2. Through the development of an ecosystem restoration plan (both for agriculture and aquaculture) and development of guidelines for sustainable aquaculture, the project will prevent unsustainable natural resource exploitation.</p>
<p>TARGET 9</p> <p>Ensure that the management and use of wild species are sustainable, thereby providing social, economic and environmental benefits for people, especially those in vulnerable situations and those most dependent on biodiversity, including through sustainable biodiversity-based activities, products and services that enhance biodiversity, and protecting and encouraging customary sustainable use by indigenous peoples and local communities.</p>	<p>ECONNECT will contribute to promoting and supporting sustainable agriculture and aquaculture practices and build capacity through farmer and aquaculture field and business schools. The project will ensure the strengthening of ecosystem services to the local population, dependent on the ecosystem for its livelihoods.</p>
<p>TARGET 10</p> <p>Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices, such as sustainable intensification, agroecological and other innovative approaches, contributing to the resilience and long-term efficiency and productivity of these production systems, and to food security, conserving and restoring biodiversity and maintaining nature's contributions to people, including ecosystem functions and services.</p>	<p>Through component 2, the project will ensure target areas identified in the ERP under agriculture, aquaculture, fisheries and forestry are managed sustainably through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices such as agroecological and integrated crop-fish systems, nature-based solutions, as well as strengthen food and nutritional security.</p>
<p>TARGET 15 (b) Provide information needed to consumers to promote sustainable consumption patterns</p>	<p>ECONNECT will ensure sustainable consumption through and education campaigns across the target area.</p>
<p>TARGET 19 (c) Leveraging private finance, promoting blended finance, implementing strategies for raising new and additional resources, and encouraging the private sector to invest in biodiversity, including through impact funds and other instruments;</p>	<p>The project will provide the financial support and create the network of sustainable agriculture and aquaculture business initiatives..</p>
<p>TARGET 20</p> <p>Strengthen capacity-building and development, access to and transfer of technology, and promote development of and access to innovation and technical and scientific cooperation, including through South-South, North-South and triangular cooperation, to meet the needs for effective implementation, particularly in developing countries, fostering joint technology development and joint scientific research programmes for the conservation and</p>	<p>The development of the ERP and FFS and AFs will ensure the transfer of capacities and improved access to effective approaches to sustainably managed agriculture and aquaculture production. Component 3 has a focus on capacity building linked to the collection and dissemination of good practices and lessons learned.</p>

sustainable use of biodiversity and strengthening scientific research and monitoring capacities, commensurate with the ambition of the goals and targets of the Framework.	
<p>TARGET 21</p> <p>Ensure that the best available data, information and knowledge are accessible to decision makers, practitioners and the public to guide effective and equitable governance, integrated and participatory management of biodiversity, and to strengthen communication, awareness-raising, education, monitoring, research and knowledge management and, also in this context, traditional knowledge, innovations, practices and technologies of indigenous peoples and local communities should only be accessed with their free, prior and informed consent,[2] in accordance with national legislation.</p>	Data and knowledge for decision-makers will be delivered through component 3, focusing on Knowledge Management and learning.
<p>TARGET 23: Ensure gender equality in the implementation of the Framework through a gender-responsive approach, where all women and girls have equal opportunity and capacity to contribute to the three objectives of the Convention, including by recognizing their equal rights and access to land and natural resources and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making related to biodiversity.</p>	Gender equality will be ensured through the project's gender and targeting strategy. The project will ensure that women and girls are actively involved in project activities, contributing to their empowerment through meaningful and informed participation.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations: Yes

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

Brief summary and list of names and dates of consultations

PLACE AND DATE	NAME	POSITION	INSTITUTION
Beirut,	Antoine Renard	Deputy Country Director	World Food Programme

3 July, 09:15 am	Michelle Iseminger	Head of Programme	World Food Programme
	Florian Leclercq	Livelihoods Specialist	World Food Programme
Beirut, 3 July, 10:30 am	Nora Haddad	Country Director	Food and Agriculture Organisation
	Etienne Careme	Liaison Officer	Food and Agriculture Organisation
Beirut, 3 July, 1:00 pm	Raymond Khoury	AGRICal Project Coordinator	Ministry of Agriculture
	Elias Namroud	AGRICal Financial Manager	Ministry of Agriculture
Beirut, 3 July, 2:30 pm	Dario Mancinelli	Agriculture and Environment Team Lead	Italian Agency for Development Cooperation
	Mirko Panichi	Project Manager (STONE)	Istituto Oikos
	Piero Pelleschi	Project Manage (ResiLAND)	Istituto Oikos
Beirut, 3 July, 4:00 pm	Maya Nehme	NGO Director	Lebanese Reforestation Initiative
Beirut, 4 July, 09:30 am	Nasser Yassin	Minister of Environment	Ministry of Environment
	Manal Mousallem	Adviser to the Minister of Environment	Ministry of Environment
	Vahak Kabakian	Climate Change Adviser	Ministry of Environment
	Ibrahim Hawi	Adviser to the Minister of Agriculture	Ministry of Agriculture
Shouf Biosphere Reserve, 4 July, 12:00 pm	Nizar Hani	Manager	Shouf Biosphere Reserve
	Lina Sarkis	Development Coordinator	Shouf Biosphere Reserve
	Kamal Abou Assi	Projects Coordinator	Shouf Biosphere Reserve
	Shouf Biosphere Reserve Personnel		Shouf Biosphere Reserve
Beirut, 5 July, 10:30 am	Sami Alawieh	President	Litani Water Authority
	Manal Mousallem	Adviser to the Minister of Agriculture	Ministry of Agriculture
Anjar, 5 July, 12:00 pm	Vartkes Khoshian	Mayor	Anjar Municipality
	Manal Mousallem	Adviser to the Minister of Agriculture	Ministry of Agriculture
	Garabed Haroutunian	Area Manager (Anjar)	United Nations Development Fund
	Amin Bekai	Area Engineer	United Nations Development Fund
	Fady Asmar	Project Manager	Food and Agriculture Organisation
Qaraoun, 5 July, 3:00 pm	Yehya Daher	Mayor	Municipality of Qaraoun
	Manal Mousallem	Adviser to the Minister of Agriculture	Ministry of Agriculture
Chtaura, 5 July, 4:30 pm	Hanna Samaha	Agricultural Engineer	Samaha Plants
Shouf Biosphere Reserve, 5 July, 4:30 pm	Nizar Hani	Manager	Shouf Biosphere Reserve
	Lina Sarkis	Development Coordinator	Shouf Biosphere Reserve

6 July, 09:00	Kamal Abou Assi	Projects Coordinator	Shouf Biosphere Reserve
	Shouf Biosphere Reserve Personnel		Shouf Biosphere Reserve
Online meeting, 6 July, 4:00 pm	Manal Nader	Director of the Environment Institute	Balamand University
Rachaya, 7 July, 10:00 am	Rachrach Naji	Mayor	Municipality of Rachaya
	Raydan Mahmoud	Representative of Local communities عضو لجنة التعااضد الاهلي	Local Community
	Walid Seifeddine	Protected area committee member	MH nature reserve
	Moufid Mahmoud	Service provider (Shop in Rachaya and Rural products producer-Atayeb Rachaya)	Local Community
	Fares Fayek	Business owner (Rachaya Gardens for rural products and dairy products)	Local community
	Shadi Abou Malek	Rachaya Media	Local Community
	Abeer El Taki	Mount Hermon Protected Area Staff	Mount Hermon Protected Area
	Geryes Haddad	Rachaya Municipal Union president	Rachaya Municipal Union
	Nizar Hani	Manager	Shouf Biosphere Reserve
	Kamal Abou Assi	Projects Coordinator	Shouf Biosphere Reserve
Ammiq, 7 July, 12:00 pm	Michel Skaff	Owner	Ammiq Ramsar Site
Qab Elias, 7 July, 2:00 pm	Team of seed bound) for seed production	Local Community/Business owner	Seed Bound
Qab Elias, 7 July, 4:00 pm	Nasser Yassin	Minister of Environment	Ministry of Environment
	Jihad Zaghloul	Qaraoun Municipality	Qaraoun Municipality
	Zaher Al Rassi	Aitanit Municipality	Aitanit Municipality
	Walid Sayfeddine	MH PA	MH PA
	Roudayna Hatoum	NGO	NGO
	Nagham Abdel Samad	Litani + NGO	Litani + NGO
	Sassine Hanna Chahine	Ammiq Municipality	Ammiq Municipality
	Yolla Ghorra Chamoun	Universite Saint Joseph	Researcher
	Marwan Zeineddine	retired- SBR	retired- SBR
	Badri Azzam	Field worker	Field worker
	Hassan Kamel Achkar	Farmer- grafting	Farmer- grafting
	Wael Bitar	Field worker SBR	Field worker SBR
	Omar Bitar	Field worker	Field worker
	Zaher Bitar	Agriculture- field worker	Agriculture- field worker
	Wajdi Rachid Bitar	Retired- security forces	Retired- security forces
	Issam Tamraz	Farmer	Farmer
	Kamal Achkar	Farmer- retired	Farmer- retired
	Samah Azzam	Field worker	Field worker
	Wissam Achkar	Field worker	Field worker
	Jamal Achkar	Retired	Retired
Naim Achkar	worker	worker	
Bassem Bitar	Field worker	Field worker	
Salah Nidal Azzam	Supervisor	Supervisor	
Rachad Temraz	worker	worker	

Samer Faysal	Worker	Worker
Mohammad Mohieddine	Municipality of Baaloul	Mayor
Yehia Mohammad Daher	Municipality of Qaraoun & Union of Municipalities of the Lake	President
Nina Farhat Younes	Mayor	Municipality of Bab Mareh
Charbel Nohra	Mayor	Municipality of Ain Zebdeh
Antoine Selwan	Municipality of Aitanit	Municipality of Aitanit
Elias B. Hanna	Boulos Nurseries	Boulos Nurseries
Abdallah Hanna	Skaff Estate	Skaff Estate
Majd Khashan	LRI	LRI
Talal Gebara	Qaraoun Club	Qaraoun Club
Farid Ammouri	Ain Zebde Municipality	Ain Zebde Municipality
Mohammad Shibli	Muslim Scout Qaraoun	Muslim Scout Qaraoun
Mohammad Azanki	Muslim Scout Qaraoun	Muslim Scout Qaraoun
Antoun Youssef	ONL	ONL
Mohammad Sultan Al Khayfali	Jeb Jannine	Jeb Jannine
Ali Abou Hamya	Kamed al Lawz	Kamed al Lawz
Mohamad Sharaneq	Jeb Jannine	Jeb Jannine
Hassan Dahabi	MoE	MoE
Michel Skaff	Skaff Estate	Skaff Estate
Hanna Samaha	Samaha Nurseries	Samaha Nurseries

The primary beneficiaries of this project will be the communities within the ecological corridor, involving small-scale producers in the agriculture and aquaculture sector. The project preparation will entail a participatory and inclusive process, involving consultation with key stakeholders in the agricultural, aquaculture and environmental sectors, including local NGOs, community organisations, private sector, and government representatives (MoE, MoA, etc.). The table below presents a list of key stakeholders consulted.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
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Medium/Moderate

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
IFAD	GET	Lebanon	Land Degradation	LD STAR Allocation: LD-1	Grant	2,929,935.00	278,342.00	3,208,277.00
Total GEF Resources (\$)						2,929,935.00	278,342.00	3,208,277.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

100000

PPG Agency Fee (\$)

9500

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
IFAD	GET	Lebanon	Land Degradation	LD STAR Allocation: LD-1	Grant	100,000.00	9,500.00	109,500.00
Total PPG Amount (\$)						100,000.00	9,500.00	109,500.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
IFAD	GET	Lebanon	Biodiversity	BD STAR Allocation	1,440,750.00
IFAD	GET	Lebanon	Climate Change	CC STAR Allocation	428,910.00
IFAD	GET	Lebanon	Land Degradation	LD STAR Allocation	1,448,117.00
Total GEF Resources					3,317,777.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
LD-1	GET	2,929,935.00	9024240
Total Project Cost		2,929,935.00	9,024,240.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Government of Lebanon	In-kind	Investment mobilized	4353500
Civil Society Organization	Arz El-Shouf	In-kind	Investment mobilized	4670740
Total Co-financing				9,024,240.00

Describe how any "Investment Mobilized" was identified

The investment mobilized refers to several projects implemented in the target area that contribute to the restoration objectives. Specifically, Arz El-Shouf has USD 4.6 million of restoration projects in the same target area funded by the EU, Cartier Philanthropy, GIZ, Fondation Hans Wilsdorf, and AICS taking place from 2023 to 2026. Moreover, the Government of Lebanon is investing USD 600,000 in 2024 on the rehabilitation of the Anjar Centre with funding from UNDP. The Adaptation Fund will further contribute to the restoration and climate adaptation efforts with a USD 4.3 million project, with the aim of mainstreaming climate resilience into integrated land use planning and policies and promote impact investments in nature-based solutions to mitigate climate risks in high value ecocultural landscapes.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
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GEF Agency Coordinator	Juan Carlos Mendoza Casadiegos				juancarlos.mendoza@ifad.org
GEF Agency Coordinator	Janie Rioux				j.rioux@ifad.org
Project Coordinator	Walid Nasr				w.nasr@ifad.org
Project Coordinator	Vrej Jijyan				v.jijyan@ifad.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

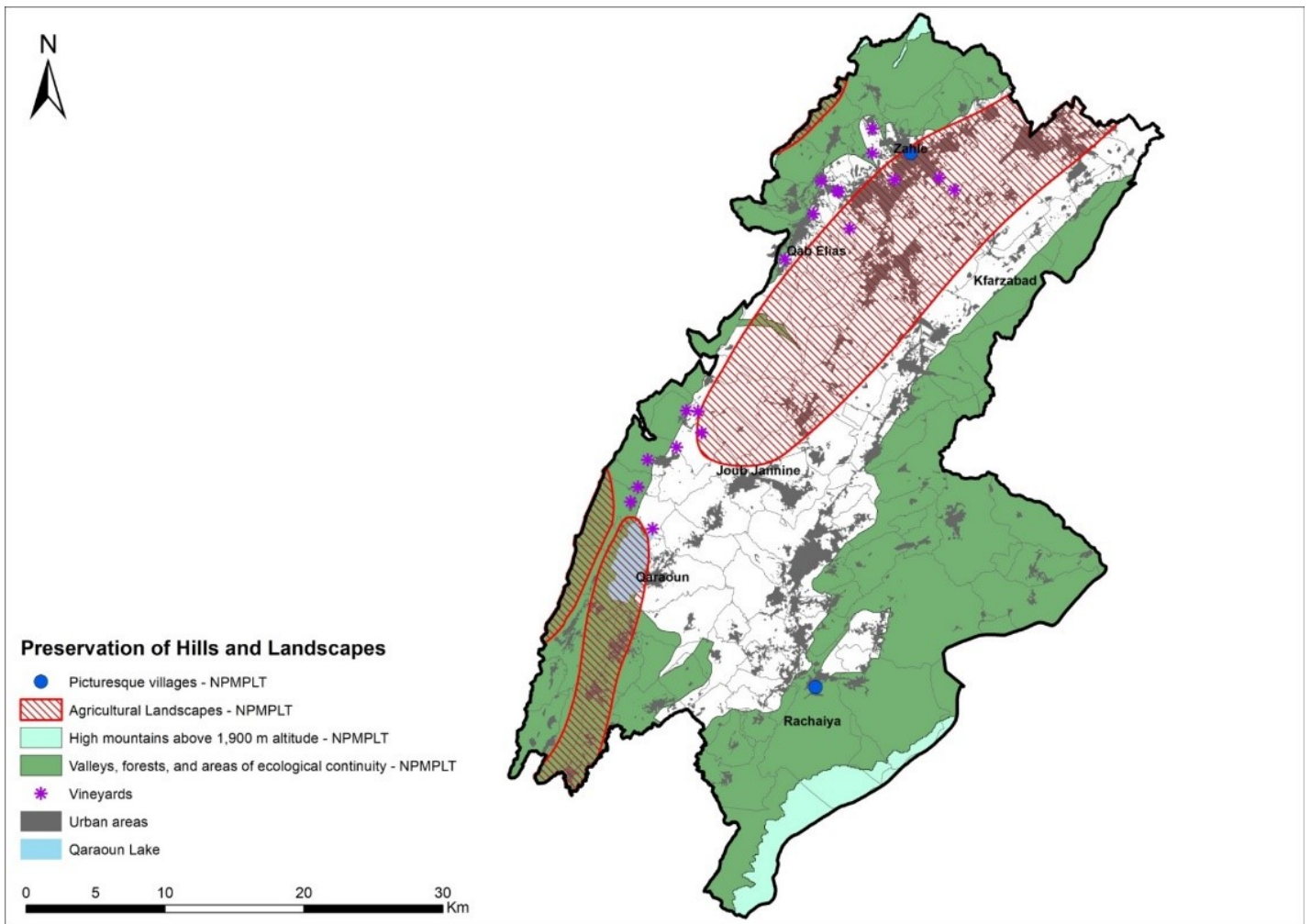
Name	Position	Ministry	Date (MM/DD/YYYY)
Nasser Yassin	Minister of Environment	Ministry of Environment	10/10/2023

ANNEX C: PROJECT LOCATION

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

- -The project target areas will include districts of Shouf, West Bekaa and Rashaya.
- - The specific areas targeted within the districts will be selected based on i) alignment with key outcomes of restoration plan ii) higher levels of land degradation iii) Biodiversity hotspots
- -The specific geo-references for project sites will be provided at start-up.

Figure 1. Map of the Preservation of Hills and Landscapes in West Bekaa

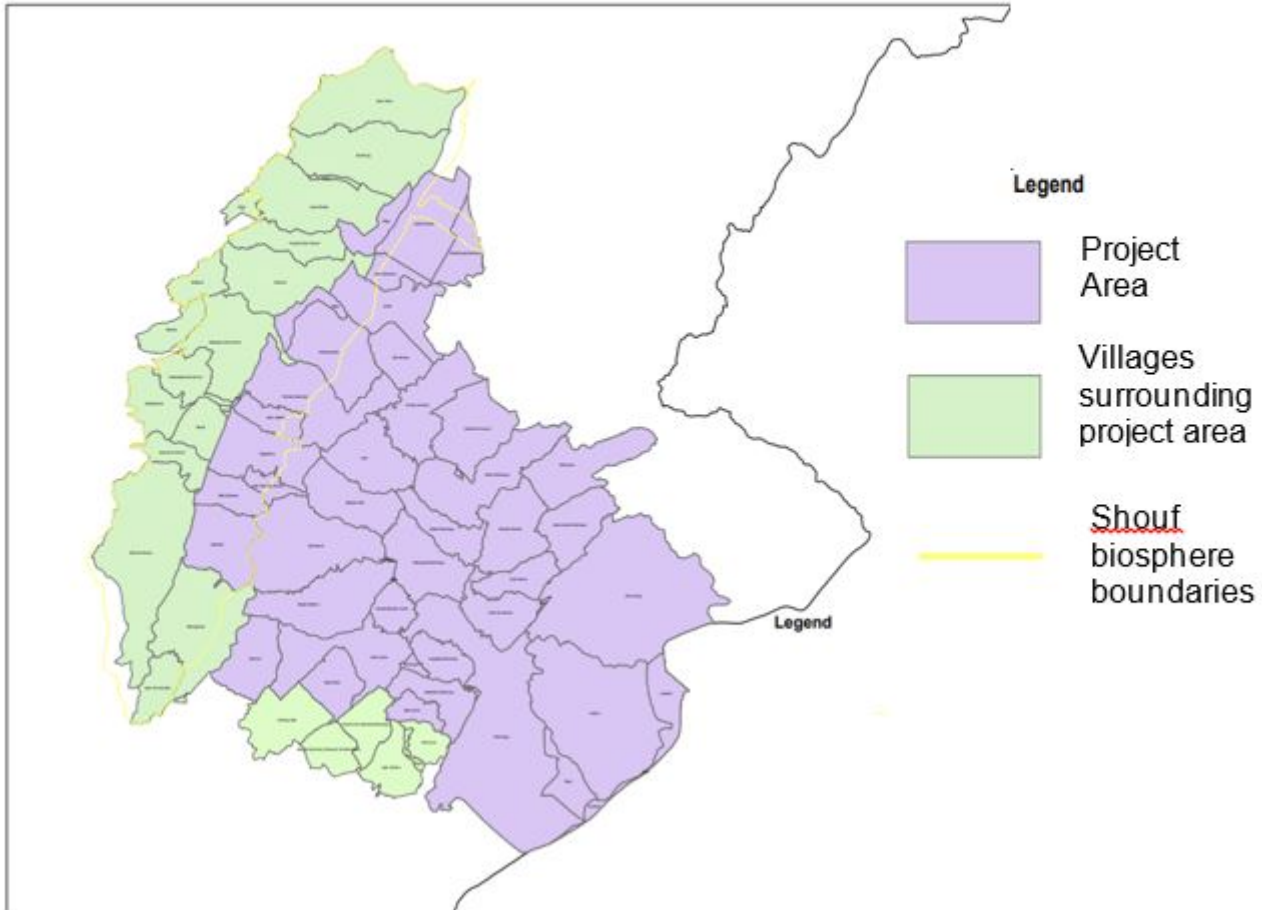


Source: Yagizi Atelier, 2019

Figure 2. Project site area



Pilot Site



Source: Shouf Biosphere Area in collaboration with IFAD design team

ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

Annex D - ESS screen and rating-rev-7Nov23

Annex E - Climate risk assessment and rating

GEF-Lebanon-ECONNECT-Climate Assessment_SECAP

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
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Significant Objective 1

Principal Objective 2

Significant Objective 1

Principal Objective 2

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
Influencing Models	Strengthen institutional capacity and decision-making; Convene multi-stakeholder alliances Demonstrate innovative approaches Deploy innovative financial instruments		
Stakeholders	Private Sector	Capital providers Large Corporations ; SMES ; small scale farmers and fishers Individuels /Entrepreneurs ;	
	Beneficiaries	small scale farmers and fishers Individuels /Entrepreneurs	
	Local Communities		
	Civil Society	Community based organizations, non-governmental organizations	
	Type of Engagement	Partnership Participation	
	Communications	Awareness Raising Education and communication campaign Behaviour Change	
Capacity, Knowledge and Research	Enabling Activities		
	Capacity Development		
	Knowledge Generation and Exchange		
	Learning	Theory of Change; Adaptive Management; Indicators to Measure Change	
	Innovation		
	Knowledge and Learning	Knowledge Management Innovation Capacity Development Workshop	
	Stakeholder Engagement Plan		
Gender Equality	Gender Mainstreaming	Beneficiaries; Women's Groups; Sex disaggregated indicators; Gender transformative indicators	
	Gender Results Areas	Access and Control over natural resources Access to Benefits and Services Capacity Development Awareness Raising	
Focal Area/Theme	Biodiversity	Mainstreaming	Agriculture & agroecology (Agrobiodiversity/agroforestry) and aquaculture

	Forest	Forest and Landscape Restoration	Drylands
	Land Degradation	Sustainable Land Management;	Restoration and Rehabilitation of Degraded Lands; Ecosystem Approach; Integrated and Cross-sectoral Approach; Community-based NRM; Sustainable Livelihoods; Income Generating Activities; Sustainable Agriculture; Sustainable aquaculture Management; Improved Soil and Water Management Techniques Environment monitoring
		Land Degradation Neutrality;	Land Productivity; Land Cover and Land cover change; Land restoration
		Food Security	Resilience, Nutrition