



REQUEST FOR CEO ENDORSEMENT
PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND:SCCF

PART I: PROJECT INFORMATION

Project Title: Smart Adaptation of Forest Landscapes in Mountain Areas (SALMA)			
Country(ies):	Lebanon	GEF Project ID: ¹	5125
GEF Agency(ies):	FAO	GEF Agency Project ID:	637642
Other Executing Partner(s):	Ministry of Agriculture	Submission Date:	6 May 2016 – Resubmission 26 August 2016
GEF Focal Area (s):	Climate Change	Project Duration(Months)	60
Name of Parent Program (if applicable):		Project Agency Fee (\$):	714,763
	<ul style="list-style-type: none"> ➤ For SFM/REDD+ <input type="checkbox"/> ➤ For SGP <input type="checkbox"/> ➤ For PPP <input type="checkbox"/> 		

A. FOCAL AREA STRATEGY FRAMEWORK²

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Cofinancing (\$)
CCA-1	Outcome 1.3: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	Output 1.3.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	SCCF	3,404,120	16,470,000
CCA-2	Outcome 2.1: Increased knowledge and understanding of climate variability and change-induced threats at country level and in targeted vulnerable areas Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses Outcome 2.3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	Output 2.1.1: Adaptive capacity of national & regional centers and networks strengthened to rapidly respond to extreme weather events Output 2.3.1: Targeted population groups participating in adaptation and risk reduction awareness activities	SCCF	2,043,091	3,640,000
CCA-3	Outcome 3.1: Successful demonstration, deployment, and transfer of relevant adaptation technology in targeted areas Outcome 3.2: Enhanced enabling environment to support adaptation-related technology transfer	Output 3.1.1: Relevant adaptation technology transferred to targeted groups Output 3.2.1: Skills increased for relevant individuals in transfer of adaptation technology	SCCF	1,360,060	6,770,000
		Project management	SCCF	340,364	100,000
Total project costs				7,147,635	26,980,000

¹ Project ID number will be assigned by GEFSEC.

² Refer to the Focal Area Results Framework and LDCF/SCCF Framework when completing Table A.

B. PROJECT FRAMEWORK

Project Objective: To enhance the resilience of vulnerable rural communities and their livelihoods in mountain areas through sustainable forest management.

Indicators and Targets:

i) # Ha of climate resilient forest ecosystems (restored and reforested). Target: 2000ha

ii) # of communities with increased adaptive capacity to reduce risks of and response to climate variability (AMAT 2.2.1). Target: 24 communities

iii) # vulnerable communities with diversified sources of income. Target: 24 communities

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount (\$)	Confirmed Cofinancing (\$)
Component 1: Climate proof forest management for enhanced ecosystem services and livelihoods	Inv/TA	<p>Outcome 1.1: improved forest pest and fire management</p> <p><u>Indicators:</u></p> <p>i) Updated risk and vulnerability assessment (AMAT 2.1.1.1)</p> <p>ii) Risk and vulnerability assessment conducted (AMAT 2.1.1.2)</p> <p>iii) # of Participatory Sustainable Forest Management (PSFM) plans validated and implemented</p> <p><u>Targets:</u></p> <p>i) Fire data collection and analysis in up to 20 selected sites</p> <p>ii) Pest surveys conducted on up to 20 selected sites</p> <p>iii) 16 PSFMs validated and implemented</p> <p>Outcome 1.2: Diversified and sustainable sources of income for vulnerable communities</p> <p><u>Indicators:</u></p> <p>i) Level of access to livelihood assets by households and communities</p> <p><u>Targets:</u></p> <p>i) Secure access to livelihoods resources (from Level 2 to Level 4, AMAT 1.3.1)</p>	<p>Output 1.1.1: Pest outbreak and forest fire risk and vulnerability assessments</p> <p>Output 1.1.2: Participatory and Sustainable Forest management (PSFM) plans with a focus on pest and fire management</p> <p>Output 1.1.3: Enhance the capacity of local communities to apply climate-proof forest management practices</p> <p>Output 1.1.4: Apply sustainable forest management practices</p> <p>Output 1.1.5: Construction of 2 hill lakes for forest fire control</p> <p>Output 1.2.1 Identification of sustainable and innovative use of forest wood and non-wood products (community projects)</p> <p>Output 1.2.2 Implementation of community projects</p>	SCCF	2,892,240	6,970,000

<p>Component 2: Participatory reforestation for increased adaptive capacity of fragile forest ecosystems and rural mountain forest communities</p>	<p>Inv/TA</p>	<p>Outcome 2.1: Reduced soil erosion, fragmentation of forest resources and biodiversity loss for more resilient forest and rural mountain forest communities.</p> <p><u>Indicators:</u> i) % change of soil erosion ii) change in fragmentation index iii) # of participatory reforestation plans</p> <p><u>Targets:</u> i) TBD during Project Year I ii) TBD during Project Year I iii) 8 plans</p>	<p>Output 2.1.1: Study of the sedimentation levels in selected hill lakes</p> <p>Output 2.1.2: Analysis of land use and land cover changes along the ecological corridors based on remote sensing data</p> <p>Output 2.1.3: Prepare and implement Participatory Reforestation Plans (PRF)</p>	<p>SCCF</p>	<p>3,232,000</p>	<p>19,670,000</p>	
<p>Component 3: Enhanced enabling environment for climate proof forest management</p>	<p>TA</p>	<p>Outcome 3.1: Increased technical and institutional capacity at national level to replicate</p> <p><u>Indicators:</u> i) Number of trained MoA staff at central and local level participating in SALMA implementation</p> <p><u>Targets:</u> 23 people including MoA staff and local forest authorities trained.</p> <p>Outcome 3.2: Project monitoring and communication</p> <p><u>Indicators and Targets:</u> i) 1 M&E system established ii) 1 Communication and awareness strategy developed and implemented</p>	<p>Output 3.1.1: Enhanced capacity on sustainable forest management of the Reforestation Programme Coordination Unit (RPCU) in MoA</p> <p>Output 3.1.2 Updated and extended assessments of existing ecosystem services in selected forests</p> <p>Output 3.2.1 Develop and implement a monitoring and evaluation plan for adaptive project management and lessons learnt</p> <p>Output 3.2.2 Develop and implement a communication and public awareness raising strategy</p>	<p>SCCF</p>	<p>683,031</p>	<p>240,000</p>	
Subtotal					<p>6,807,271</p>	<p>26,880,000</p>	
Project management Cost (PMC)³					<p>SCCF</p>	<p>340,364</p>	<p>100,000</p>
Total project costs					<p>7,147,635</p>	<p>26,980,000</p>	

³ PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount (\$)
National Government	Ministry of Environment (Government of Lebanon)	Cash	11,000,000
National Government	Green Plan	Cash	8,340,000
CSO	Lebanon Reforestation Initiative (LRI)	Cash	6,900,000
GEF Agency	FAO	Cash	640,000
GEF Agency	FAO	In-kind	100,000
Total Co-financing			26,980,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in \$)		
				Grant Amount (a)	Agency Fee (b) ²	Total c=a+b
FAO	SCCF	Climate Change	Lebanon	7,147,635	714,763	7,862,398
Total Grant Resources				7,147,635	714,763	7,862,398

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
International Consultants	152,000	350,000	502,000
National/Local Consultants	1,199,500	4,300,000	5,499,500

G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? No

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF⁴

The SALMA project concept (PIF) was approved by the GEF in October 2012 and transferred from the World Bank to FAO on 27 May 2015. The original SALMA WB project (Sustainable Agricultural Livelihoods in Marginal Areas) was co-financed through a USD20 million WB loan supporting the establishment of supplemental irrigation infrastructure (including 14-15 hill lakes). The loan, and therefore the baseline of the SALMA project, was cancelled. As a result, WB suspended the SALMA project preparation work and eventually transferred the project to FAO, which had already been involved in project preparation activities, particularly activities pertaining to the reforestation component of SALMA and the design of the Participatory Reforestation Plan Manual. With changing baseline context and initiatives, a different GEF Agency with distinct comparative advantages, and an evolving socio-economic context (e.g. dramatically influenced by the protracting Syria crisis and the increasing amount of refugees in Lebanon's urban and rural landscapes), the project as described in the PIF has gone through a number of

⁴ For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter "NA" after the respective question.

iterations. Though there has been an attempt to stay truthful to and fully aligned with the approved PIF, important differences must be noted, including:

- Title – In the attempt to preserve the acronym with which many partners and stakeholders in the country have already familiarized themselves, SALMA now stands for *Smart Adaptation of Forest Landscapes in Mountain Areas*. This new title better reflects the focus of the current SALMA project, i.e. the fragile forests and forest ecosystems and the communities living in and around them and relying on forest products and services for their incomes and livelihoods.
- Anchor in LDCF/SCCF Programming Strategy – Though the current project proposal targets the same LDCF/SCCF objectives as identified in the PIF, the SCCF priority programmes it is contributing to changed, namely from water resources management and agriculture to fragile ecosystems, including mountain ecosystems and supporting capacity building.
- Project implementation areas – Where the SALMA at PIF stage targeted marginal mountain areas, in the far North and far South of the country, the recent security situation hampers on-the-ground operations, particularly in the far North of Lebanon. Moreover, focusing on fragile forest ecosystems and forest restoration and sustainable management for more resilient ecosystems and ecosystem services, PPG studies identified (see longlist in Annex 8 of the Project Document) other priority areas than the ones originally identified for the WB SALMA. A description of the project implementation areas is provided in the Project Document.

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAI NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.

At the national level the project is in line with the 2005 *National Physical Master Plan for the Lebanese Territory* (NPMPLT) adopted in 2009 by the Government of Lebanon, which promotes forest corridors in mountain areas. It is aligned with the 2014 *National Afforestation and Reforestation Programme* (NARP), which aims at reaching 20% forest cover by 2030, and the *MOA and MOE 2015-2019 Strategies*.

Sustainable forest management and reforestation are a major component of the implementation plans of the 3 Rio Conventions signed by the Government of Lebanon, i.e. the United Nations Convention on Biodiversity (UNCBD), United Nations Convention to Combat Desertification (UNCCD) and the United Nations Framework Convention on Climate Change (UNFCCC). The country reports for UNCBD and UNCCD highlight forests as a major contribution for achieving the convention goals and objectives in Lebanon.

The National Action Plan to Combat Desertification (NAP) mapped the risk of desertification in Lebanon and developed a guiding document for land degradation in forest areas and scrublands and adopted a participatory approach involving communities of affected areas and concerned stakeholders. An institutional framework was put in place to ensure the implementation and mainstreaming across sectors of the NAP based on two principles: (i) implementing appropriate land use planning based on soil capability and land suitability to sustain soil and water conservation; and (ii) limiting the risks of desertification and ensuring economic and social development based on sustainable production and safe environment.

The MOE is currently finalizing its National Biodiversity Strategy and Action Plan (NBSAP), embedding Aichi targets within the plan. The NBSAP will contribute to restoration of degraded and fragmented forest habitats and will focus on expanding the cover of fragmented forest ecosystems. Consequently, the project will be reducing the threats affecting biodiversity in Lebanon, and would be in line with the UNCBD.

Although there is no national strategy or plan on climate change adaptation or mitigation in Lebanon, the 2013-16 EU ClimaSouth program is helping Lebanon improve data management, vulnerability assessments, national adaptation strategies and plans. Moreover, Decision 196/1 of 2013 initiated the Nationally Appropriate Mitigation Actions (NAMA) process in Lebanon. The Second National Communication (SNC) conducted a vulnerability and impact assessment of climate change on different sectors, including agriculture, water, human settlements and natural ecosystems. Pine forests on lowlands were identified as vulnerable due to the high forest fire risk, while the high altitude forest ecosystems such as cedar, junipers are vulnerable through habitat loss and pest outbreaks. The

SNC suggested a list of adaptation measures focusing mainly on forest management, pest monitoring and control, and the implementation of the national strategy for forest fire fighting. The Third National Communication (TNC) is still under review and a number of potential elements for Lebanon's Intended Nationally Determined Contribution have already been prepared for several sectors including biodiversity where the target by 2030 calls for vulnerable ecosystems to climate change to be identified and adaptation plans to be developed and implemented. Specific actions include: (i) identifying key ecosystems vulnerable to climate change and their adaptation needs; and (ii) piloting national monitoring sites and species, representing the various ecosystems, to monitor medium and long-term effects of climate change and implement pilot action to adapt natural ecosystems to climate change.

TNC adaptation measures are targeted to assist the natural resilience of forests, anticipate future changes and promote landscape scale and include: (i) strengthening the legal and institutional framework to integrate climate change needs; (ii) integrating landscape level planning in local/regional development plans; (iii) strengthening awareness, education and support research; and (iv) developing forest management plans for most vulnerable ecosystems. The TNC suggests the following actions, to which SALMA aligned itself:

- In order to maintain and increase Lebanon's forests and other wooded land cover, an integrated approach involving improved legislation and law enforcement, land use planning, education and awareness, economic valuation of forests, and funding is necessary. Lebanon will reduce the extent of new losses of forests due to urbanization and compensate it through afforestation/reforestation activities. In addition, Lebanon will implement the National Strategy for Forest Fire Management, specifically through modifying fire risk through fire vulnerability reduction and prevention of harmful fires and facilitating the natural post-fire recovery of vegetation.
- Economic instruments such as payment for environmental services, conservation payment programs for land conversion, establishment of community forests and subsidy for reforestation will be used for maintaining and increasing the forest cover in Lebanon. The lack of vocational training, the weakness of the training programs, the scarcity of applied research, and the lack of information on ecosystem services and the forest values are only aggravated by the chronic lack of funding.
- Agro-forestry and indigenous tree production as a potential socio-economic co-benefit of environmentally integral planting regimes, and tree breeding as an adaptive response to changing landscape conditions will also be encouraged.

A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities

SALMA is in line with the Programming Strategy on Adaptation to Climate Change for the LDCF and SCCF (2010-2013), and relates particularly to objectives CCA-1, CCA-2 and CCA-3 as the project will achieve successful demonstration, deployment, and transfer of relevant adaptation technologies/practices related to forestry, forest management and reforestation, reduce the vulnerability of fragile forest ecosystems and local communities in rural forest areas, and improve the capacity of local and national stakeholders to achieving climate proof reforestation and forest management plans at the landscape level. The SALMA project aims at contributing to the desired outcomes of the GEF 2010-2013 adaptation strategy by reducing biodiversity and ecosystem services losses provided by forests due to climate change, involving communities in planning, preparedness and prevention through inclusive and participatory forest management plans, diversifying and strengthening livelihoods of vulnerable mountain people, and enhancing climate resilience of fragile forest ecosystems.

A.3 The GEF Agency's comparative advantage

FAO has a strong comparative advantage in providing technical support to the Government of Lebanon in developing national policies and strategies regarding forest resources. In 2004, in collaboration with the Ministry of Agriculture (MOA), FAO conducted the first national forest resources assessment. In 2009, FAO supported the development of the national strategy for forest fire fighting and implemented several projects aimed at strengthening national capacities and coordination amongst key stakeholders involved in forest fire management. In 2010, the MOA requested FAO to provide assistance in setting up the institutional and organizational framework for reforestation activities in Lebanon, leading to the elaboration of the National Afforestation and Reforestation

Plan (NARP), and the creation of a National Reforestation Coordination Unit at the MOA. FAO is currently supporting the establishment of a reforestation register system which will allow the different stakeholders to integrate and mainstream their activities in order to achieve the NARP in the most effective and efficient manner. Through the Forest and Landscape Restoration Mechanism, FAO is also supporting Lebanon improving the enabling environment, institutional arrangements, organizational and technical capacity and other concerns related to designing, planning and implementing a large scale and comprehensive FLR programme. Details on co-financing projects from FAO are provided in section 1.2 of the Project Document.

A.4. The baseline projects and the problem that they seek to address

Section 1.2 of the Project Document provides a detailed description of the situation with regards to forest ecosystem management and landscape restoration in Lebanon, and of climate related impacts and threats to forest reliant communities as summarized below:

Forest and ecosystem initiatives that were conducted in Lebanon targeted initially the increase of the forest cover of the country, and later the restoration of degraded forest ecosystems, namely after fire. However, these initiatives have not considered imminent and future climate change effects, and how to increase the resilience of communities by building up adaptive capacity and by climate proofing reforestation activities, forest management and water conservation. Yet, it is expected that the formulation and implementation of the Nationally Appropriate Mitigation Actions NAMA (still under preparation and across sectors) will help address some of these shortcomings.

Between the sixties and mid-seventies, the Government of Lebanon (GOL) initiated afforestation/reforestation activities, mainly through the Green Plan. Further, after the end of the Civil War in 1989, the MOA RDNRD took over the activities of the Green Plan, albeit with a reduced budget. The MOA established its own nurseries and undertook several forestation activities between 1990 and 2001. Several stakeholders were involved in reforestation activities, combining governmental agencies (MOA, MOE), NGOs, CBOs and the private sector. It is noteworthy that most of the reforestation activities have been conducted on communal lands, managed by Municipalities and Unions of Municipalities. According to FRA 2010, Lebanon has achieved some 10 500 ha of reforestation, of which governmental institutions, NGOs and CBOs including international support reforested about 4 000 ha. It is estimated that municipalities and private entities including waqfs (religious trusts) and farmers account for more than half of the total reforested areas. However, the majority of reforestation by these municipalities and private actors favored planting pine nut-producing trees.

As of today, MOA nurseries are still providing NGOs, CBOs, cooperatives, municipalities, and privates with forest tree seedlings and supervising municipalities in conducting reforestation activities. MOA is also managing the revolving reforestation fund that is provisioned by a share of the usufruct from the exploitation of natural resources in municipal communal lands. Currently, MOA has the biggest capacity of seedling production with more than 6 million seedlings per year. The National Center for Forestry Seeds of Lebanon is being established with financial support from the Embassy of Norway (USD 350 000). This seed bank will be housed at the Lebanese Agriculture Research Institute (LARI) under the MOA tutelage, with the following objectives: (i) ensuring the proliferation of native tree species diversity by collecting, selling, distributing and registering quality seeds of species used for reforestation; and (ii) preserving native tree species' diversity against human-made disasters, disease, natural disasters and climate change effects. The seed bank is an essential complementary activity for the integrated adaptive reforestation drive that will be initiated under SALMA to be scaled up over the next years through tapping new funding from Lebanese emigrants, development partners and the private sector seeking to adopt a green corporate social responsibility as a code of conduct.

Despite the above mentioned significant past and ongoing initiatives, a vast number of programmes and projects particularly in the forestry sector are still falling short of incorporating the special needs to effectively address the adverse effects of climate change. This is aggravated by a limited coordination among programmes/projects, a weak regulatory environment, as well as the limited knowledge about the ecosystem services provided by the forests.

SALMA will directly engage with the following baseline projects and programmes that will also provide co-financing to the project:

The Lebanon Reforestation Initiative (LRI). In 2010, the United States Forest Service (USFS), through the support and funding of the United States Agency for International Development (USAID), launched the Lebanon Reforestation Initiative. The LRI works in collaboration with local NGOs and local communities to promote sustainable reforestation activities and wildfire prevention in Lebanon. By the end of 2014, LRI disbursed USD 12 million, and enabled the partnering NGOs as well as the committees managing the natural reserves, to support reforestation and fire prevention activities. It has reforested approximately 600 ha in different areas of the country with, however, at a very high cost per ha reaching more than USD 7 000 per hectare (at a density of 800 seedlings/Ha – costs ranging from USD 4 400 to USD 10 000 per hectare, which is notably higher than in other countries). SALMA's objective is to reduce this cost to around USD 2 500 per hectare, also building upon and complementing findings from the "Safeguarding and Restoring Lebanon's Woodland Resources Project".

The LRI has been extended until the end of 2018 with three identified goals for communities:

- protecting existing planting sites so they become thriving forests;
- promoting community-led initiatives that replicate tree planting sites on private and municipal lands, especially on site-adjacent lands; and
- supporting a community "multiplier effect" from the tree planting sites, such as eco-tourism, environmental education, parks and recreation activities.

Coordination between SALMA and LRI was convened during SALMA preparation to increase synergies and knowledge sharing. The GEF will leverage LRI's efforts in expanding participatory reforestation activities in the Northern and Eastern slopes of Mount Lebanon by climate proofing community-based reforestation plans while making reforestation more cost-effective, and by training forest communities on diversified sustainable livelihoods options. In addition SALMA will complement LRI's Firewise Component by introducing silviculture practices for the prevention and management of pest outbreaks as well as sustainable forest management. Total co-financing volume is USD 6.9 million.

The National Reforestation Plan (NRP). In 2001, the GOL provided MOE with USD 16.7 million to implement the National Reforestation Plan (NRP). The main objective was to restore the country's forest cover. Between 2001 and 2006, MOE reforested 583 ha through 2 phases in degraded rangelands and abandoned lands in all Lebanese regions (FRA 2010). A new reforestation phase is about to be launched in 2016 and will be considered as SALMA co-financing to the tune of USD 11 million. Still, the NRP, which needs to determine the next phase focus areas, only targeted Municipalities and achieved uneven rates of success, as communities were not engaged in the process. Discussions were engaged with MOE as to adopt SALMA participatory and cost-effective approach and close coordination in site selection for its next reforestation phase.

The Hilly Areas Sustainable Agricultural Development (HASAD) project (2009-2015, after MTR project extended until June 2018) is implemented by the Green Plan and financed by the Government of Lebanon, the International Fund for Agricultural Development (IFAD) and the OPEC Fund for International Development (OFID). GP/HASAD will provide co-financing equaling USD 6 568 000. HASAD targets 4500 farmers in Lebanon's hilly areas, its main goal is to alleviate poverty and increase production through: (i) improved water and soil management in rain-fed areas; (ii) improved quality and quantity of agricultural products as well as improving marketing services; and (iii) capacity building for stakeholders and farmer groups.

The component on construction of hill lakes under HASAD is particularly relevant to SALMA. The construction of medium-sized hill lakes is part of the water and soil conservation strategies that HASAD wishes to promote as the former are used to store runoff rainwater and existing permanent sources of water such as springs for supplemental irrigation of nearby trees. The HASAD project will increase water availability by 868 750 m³ through water harvesting works, constructing i) 18 small lakes with storage capacity ranging between 20 000 to 50 000m³; ii) 2 medium size lakes with storage capacity between 50 000 to 150 000 m³; and iii) 50 earth and 50 concrete reservoirs. SALMA will have a positive impact on HASAD deliverables introducing a sustainable forest management dimension to ongoing activities.

The hill lake-construction record of accomplishment of the Green Plan is very good. Private consulting firms and contractors are solicited to bid to carry out the design, the environmental and social safeguards and the construction of the hill lakes where a sustainable built-in operations and maintenance scheme allows the hill lake trained water management association to use a share of the stored volume to defray the cost of operations and maintenance. Unlike SALMA's objective to increase forest fire preparedness, none of the existing hill lakes was meant for forest fires. The GEF grant will leverage infrastructure investments in water harvesting and mobilization and soil conservation works and will build on the project's capacity building efforts, especially in relation to sustainable forest management adding particular emphasis on technologies and practices to enhance adaptation interventions in fragile forest ecosystems.

The Restoration of Terraces project financed by the Government of Lebanon and implemented by the Green Plan, provides seed money (about USD 10,000 per application for any holding of more than 0.3 Ha) for community-based or community-supervised construction activities that will increase adaptation through better land use and water table recharge. The co-financing to SALMA totals USD 1 773 000. Terracing would allow not only land reclamation for agriculture on mountain slopes, but it also helps to limit erosion on these slopes. Terraces are hence a major tool for soil and water conservation. The limited surface water runoff, would enhance water infiltration and consequently improve table recharge. Terraces allow small farmers to improve their livelihood and their resilience to climate extremes and related risks (floods, drought landslides). The project is therefore a complement to SALMA, working towards achieving a shared development objective.

FAO supported projects that are co-financing the SALMA project are i) Piloting the Forest and Landscape Restoration Mechanism (FLRM) in Lebanon, and ii) Strengthening the Coordination of the NARP in Lebanon.

The FAO Forest and Landscape Restoration Mechanism, a global initiative developed in the context of the Bonn Challenge and the Aichi Targets, has included Lebanon as a pilot country. This piloted initiative in Lebanon will co-finance SALMA for a total of USD 400 000 up until the end of 2018. The main objective of the initiative is that FLR programs are implemented in Lebanon with an integrated landscape approach taking into consideration the multiple land uses and the diverse interests of the local stakeholders. The work plan 2016-2018 of the FLRM pilot program in Lebanon is focused on three outputs:

- Governance, institutional support to the Ministry of Agriculture and enabling environment of Forest and Landscape Restoration (FLR);
- Facilitate the access of national institutions to sustainable financing for FLR; and
- Pilot actions focused on the implementation of new methodological models potentially replicable in other Lebanese regions.

These three FLRM outputs will contribute to achieving SALMA's objective to enhancing resilience of fragile forest ecosystems and vulnerable communities in forested mountain areas. The piloted FAO FLRM program will also support Lebanon to meet its obligation towards the Strategic Framework on Mediterranean Forests (SFMF), which aims to:

- Develop and promote goods and services through: (i) improving sustainable production of goods and services from Mediterranean forests; (ii) enhancing the role of the Mediterranean forests in rural development; and (iii) promoting forest governance and land tenure reform at the landscape level.
- Promote resilience under global changes through: (i) promoting wildfire prevention in the context of global changes; (ii) managing forest generic resources and biodiversity to enhance adaptation of the Mediterranean forest to climate change; and (iii) restoring degraded Mediterranean forests to climate change.
- Enhance capacities and mobilizing resources through: (developing knowledge, training and communication on Mediterranean forests; (ii) reinforcing international cooperation; and (iii) adopting existing financing schemes and develop innovative mechanisms to support implementation of forest policies and programs.

This in turn will lead to the creation of a conducive environment for the implementation of the SALMA project.

The MOA requested FAO to launch a Reforestation Programme Coordination Unit which will allow the different stakeholders to integrate and mainstream their activities in order to achieve the NARP in the most effective and efficient manner. The project Strengthening the Coordination of the NARP in Lebanon (2015-2017) will co-finance

SALMA for a total of USD240 000. The expected long-term impact of the project is to enhance the Lebanese forestry sector for the provision of environmental goods and services, contributing to improved livelihoods. To achieve this long-term goal, the project will work with all relevant stakeholders (government, civil society, scientific/research/educational institutions and the private sector) to plan and implement reforestation projects and promote sustainable forest management. This will be pursued through applying an ecosystem management approach, while developing capacity of institutions, improving governance and legislation, developing planning and monitoring tools and establishing fund raising mechanisms. The project will provide a conducive enabling environment for SALMA and will help ensuring sustainability and outscaling of project results. SALMA's project management unit will be housed within the Reforestation Programme Coordination Unit where all the tools developed under SALMA will be deployed, fine-tuned and mainstreamed in this one-stop-shop.

A. 5. Additional cost reasoning: describe the additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated adaptation benefits (LDCF/SCCF) to be delivered by the project

The above mentioned baseline programmes and projects represent a real opportunity to make substantial improvements towards climate smart forest landscapes in Lebanon, in particular for the large number of rural people engaged in forest management activities. However, the programmes and projects mentioned above face several common challenges that undermine their effectiveness and limit their impact as they fail to provide an adequate analysis of climate variability and climate change, and do not identify appropriate adaptation measures at the landscape level. SALMA offers to work at a scale that goes beyond administrative borders and focuses on ecological corridors and watersheds in order to achieve climate change adaptation benefits through the reduction of forest fragmentation and soil erosion. Ecological corridors, connecting core zones such as the neighboring Biosphere and natural reserves, help maintain and recover cohesion in the fragmented forest ecosystems in the intervention areas. It is believed that through the connection of fragmented habitats, the viability of animal and plant species is improved. The ecological corridor landscape has been introduced into the SALMA project, and will be achieved particularly through its reforestation component, as it is believed to help build more climate change resilient forest ecosystems. Indeed, because of climate change, the borders of suitable habitats are continuously changing. It is therefore important for many species to be able to migrate over greater distances. Watersheds are being considered when determining the potential impact of the reforestation activities on soil erosion and siltation of waterbodies and waterways. To this end, preferred locations for restoration and reforestation activities will be informed by open source remote sensing data (obtained via the application of CollectEarth on the intervention areas), which will complement the rich data already available at MOA.

The following challenges were assessed through the PPG studies:

1. Lack of a cohesive strategy to address forest fragmentation at the landscape level

Despite an overarching reforestation strategy (NARP) and a National Forest Program (2015-2025) aimed at sustainably managing the Lebanese forest resources, ongoing interventions in the forest sector are implemented on a piece-meal basis with isolated, stand-alone activities in small plots of forest scattered over a large area – a recipe for long term ecological decline.

While much attention has been placed on increasing the forest cover through the protection of existing forest, afforestation and reforestation, much less attention has been placed in implementing sustainable forest management at the landscape level through coordinated and integrated actions. Lack of cross-sectoral coordination and planning amongst key players involved in forest related activities remains a major constraint to adaptive forest management. The different sectors (e.g. forestry, agriculture, grazing, water) either compete with each other, or have contradictory aims, thus leading to uncoordinated planning and actions. The result is that government actions and investments aimed at strengthening the resilience of forest ecosystems occur with limited regard to impact at the landscape level.

Although some national initiatives, such as the Lebanon Reforestation Initiative (LRI), the Lebanon National Forest Program (LNFP), as well as activities supported by NGOs (AFDC, Jouzour Loubnan) are adopting an ecosystem approach to reforestation, resources and costs to promote integrated adaptation measures, are underestimated and do not sufficiently account for different extra actions aimed at the economic and social development of forest reliant

communities. As argued in Lebanon's Second National Communication (SNC), adaptation actions fall short in including the costs of pest management to fight pest infestation resulting from climate change implications on nature reserves.

Moreover, legal constraints give little economic incentives for sustainable use of forests at the landscape level. Local communities and even private persons are not allowed to use their wood resources, even though the trees grow on their own land. Tree-felling is prohibited throughout the country. This ban has helped a lot in conserving the existing forest resources, but at the same time, it has also led to a decreased interest in planting trees and conducting afforestation measures, or to adoption of a "prevention" ethic for forests, and thus represents a perverse incentive for sustainable forest management and landscape restoration.

SALMA's additionality

SALMA seeks to initiate a drive to restore, preserve and sustainably manage forest ecosystems while creating ecological corridors between fragmented forest patches to ensure forest landscape connectivity. The project will mainly target mountain slopes owned by the state, local communities and religious waqfs. The landscape approach promoted by SALMA will ensure that the planning and management of forest ecosystems and their services are done at the scale needed for effective and climate resilient forest fire and forest pest control. To enhance cross-sectoral coordination and upscale integrated approaches required to achieve adaptation benefits, SALMA will promote a coordinated multi stakeholder and multi-disciplinary approach that acknowledges the fact that local action planning increases ownership, institutional capacities and coordination. This will be demonstrated using practical and participatory approaches and tools such as the participatory reforestation plan and the sustainable forest management plan developed in the context of this project.

2 - Lack of awareness at community and decision-making levels of the ecosystem services provided by the forests and climate change induced impacts in order to fully harness benefits accruing to communities and the environment

Forest ecosystem services are not properly perceived, assessed and valued in Lebanon. There is a general lack of awareness of climate change and the importance of forest cover and the multiple roles that forests play in the country and there is no reliable statistics to allow careful planning and implementation to properly apply ecosystem restoration.

The lack of control and appropriate legislation in the last few years, the growing needs of the population and ignorance of the negative impacts of poor natural resource management have resulted in a general reduction of forest functions. Lowered water tables, soil erosion and changes in unique micro-climate are some of the consequences of this rapid deterioration coupled with insufficient forest management, land abandonment, over-exploitation of wood, intended and unintended forest fires (inadequate prevention measures), grazing in cut areas and agricultural expansion.

The lack of actionable knowledge and information on the economic benefits derived from forests, leads to a weak inclination to get involved in reforestation and forest management activities on privately owned, religiously-owned and state owned/communal land as investments are considered of low profitability when compared to construction opportunities, especially since logging is forbidden in Lebanon. The deterioration of the economic situation in the country since 2011 induced the rural population to increase their dependency on the natural resources including land reclamation for agriculture, water allocation for irrigation, grazing, fuel wood collection, and other types of exploitation that are significantly increasing although there is no quantitative data to substantiate these altered consumption patterns. As a result, rural communities are reluctant to initiate reforestation activities in their land lots, and municipalities are tailoring reforestation plans solely based on their direct economic return (mainly targeting *Pinus pinea*).

Moreover, in Lebanon, once an area has been deprived from its natural forest cover (for whatever reason), it is rarely replanted, and usually becomes wasteland or rangeland. The lack of rehabilitation of degraded woodland results from a lack of stewardship.

SALMA's additionality

SALMA will show case community-based sustainable activities in communal land, religious endowments and state land that investing in reforestation and forest management could outweigh forest degradation and abandonment in the future while improving the livelihood of mountain rural communities prone to climate change effects.

The project will capitalize on available quantitative analyses and complement existing data on forest ecosystem services that have not been valued yet to show case the overall benefits to communities. Furthermore, SALMA will promote uptake of available information on forest goods and services into policies and plans through capacity development at MOA. SALMA together with partner projects (ARDP) and co-financing projects and programmes will particularly target technical staff of concerned authorities at central level (Council for Reconstruction and Development, MOA, MOE, etc.) as well as local level (municipalities and their unions) as well as forest users and forest engineers and local forestry officers, to assess forest environmental services. This will inform decision making on broader level planning.

In terms of Adaptation benefits, SALMA is believed to contribute to the achievement of forest fire prevention and control, pest management, reduced soil and water erosion, diversification of livelihood income (from ecosystem services) of 24 vulnerable communities, and improved adaptive capacity of these communities through reforestation (1 000 ha) and sustainable and participative forest management at the landscape level (1 000 ha).

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks

The risks confronting the project have been carefully evaluated during project preparation, and risk mitigation measures have been internalized into the design of the project. The project strategy includes adaptive management and will continually monitor if the assumptions continue to stand. The identified risks, their ratings and mitigation measures are summarized in the table below:

Risk	Rating	Response / Mitigation Strategy
Political instability may focus the public interest to areas other than environmental issues	Low	Despite the fact that the country is situated in a difficult political situation, no direct influence on the activities of ongoing environmental projects is noted.
Local populations are not interested in engaging in reforestation and sustainable forest management activities	Low	PPG studies evidenced that local needs for improving sustainable forest management and reforestation are so high that this is unlikely. In addition, as local communities will be directly involved in planning for reforestation and sustainable forest management activities, it is assumed that their interests will be reflected and accounted for in the participatory management plans. Moreover, for potentially successful community projects, SALMA will provide seed funding. This will incentivise the wider community to participate to project activities.
Limited capacity at central and local levels on sustainable forest management, fire management and pest management	Low	SALMA will aim at strengthening the Reforestation Programme Coordination Unit (RCMU), complementing the capacity development support already provided through the baseline investments. At the central level, SALMA will build capacity through a number of training activities and the deployment of 3 full-time experts in the RCMU. These 3 experts will in turn train MOA staff at central and local levels, follow-up project activities, monitor progress and results, and work closely with beneficiaries in such a way that their capacities are enhanced.
Heavy administrative procedures, mainly related to expenditures modalities and processing	Medium	The project will build on the experiences and modalities developed for other GEF projects in the country.

A.7. Coordination with other relevant GEF financed initiatives

Coordination will be sought with the GEF financed project *Sustainable Land Management in the Qaroun Catchment* (2014-2018), implemented by UNDP and executed by the Lebanese Ministry of the Environment. This project aims at alleviating land degradation, maintaining ecosystem services, and improving livelihoods in the Qaroun Catchment, through SLM and integrated natural resources management.

Coordination with the above mentioned GEF project will be undertaken through: (i) informal communications among GEF agencies and implementing partners of other programs and projects; and (ii) exchange of information and dissemination materials between projects. In order to guarantee an effective coordination and collaboration between different initiatives, specific coordination responsibilities have been assigned to the Project Management Unit and included in the terms of reference of the Project Manager, whose results shall be explicitly reflected in the Project Progress Reports (PPRs).

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE

B.1 Describe how the stakeholders will be engaged in project implementation

The Ministry of Agriculture (MOA) is the institutional anchor of SALMA, and this in the following ways:

- Through its Rural Development and Natural Resources Directorate (RNDRD/MOA), MOA will provide policy, planning and technical guidance to the SALMA PMU. The RNDRD/MOA will also play a liaison role between PMU, the IMC and the Tri-partite Steering Committee of SALMA. Nurseries under the RNDRD/MOA will provide free seedlings and/or seeds to the project, if requested and available. RNDRD/MOA will also be responsible to coordinate with MOA nurseries through liaising with the PMU in transporting seedlings to reforestation sites. Forest guides under the regional RNDRD will provide support to the project in terms of monitoring and evaluation of reforestation activities and technical support to reforestation NGO-Community Consortia.
- The Minister of Agriculture heads the Inter-Ministerial National Reforestation Committee (IMC) which coordinates the NARP nationally. This Committee includes members from the following entities: Ministry of Agriculture, Ministry of Environment, Ministry of Interior and Municipalities (MOIM), Ministry of Finance (MOF), Ministry of Defense, Ministry of Education and Higher Education, Ministry of Youth and Sports, Ministry of Justice, Ministry of Energy and Water, Green Plan, Lebanese University (Agriculture Department), American University of Beirut (Agriculture Department), Université St. Joseph (Agriculture Department), NGOs (AFDC and SBR) and 5 members from the private sector. The modus operandi (administration and financial) of this Committee is still under preparation and the Minister of Agriculture has the authority to endorse a reforestation initiative such as SALMA if the Committee does not meet.
- The Ministry of Agriculture will also be represented in the Tri-partite Steering Committee of the SALMA project.

A Project Steering Committee (PSC) will be established. It will be comprised of representatives from MOA, MOE, Green Plan and FAO and chaired by the National Project Coordinator who is also representing MOA. The MOE and Green Plan PSC members will be appointed by their relevant respective entities, prior to project effectiveness, while the FAO PSC member will be the FAO Representative to Lebanon. The PSC will meet at least twice a year to: (i) monitor the progress of the project and the results achieved such as those presented in the twice-yearly progress report; (ii) facilitate cooperation between the project and other pertinent projects and programs underway; (iii) ensure the sustainability of the key results of the project, in particularly tailoring the actions to other contexts and (iv) supervise efficient coordination between implementation partners. The members of the PSC will each fill the role of focal point for the project in their respective agencies. As a result, and as such a focal point, they will ensure: (i) the technical supervision of the activities in their sector; (ii) a fluid two-way exchange of information and of knowledge between their agency and the project; (iii) coordination and communication between the activities of the project and the work plan of their agency; and (iv) the provision of co-financing for the project.

Moreover, letters of agreement (LoAs) will be signed between the FAO and several service providers. FAO-Lebanon, together with the Lead Technical Officer in the Regional Office for the Near East and North Africa (RNE-Cairo), will be responsible for setting up all necessary LOAs with Executing Partners to be defined at the inception phase of project implementation. They will be administratively managed by the project budget holder, and the funds received by the service providers, as part of the LoA, will be used to carry out project activities conforming to the rules and procedures of FAO.

In terms of stakeholder engagement in field activities, sustainable forest management plans and participatory reforestation plans will be formulated and validated through multi-stakeholder consultations, and implemented by selected communities, under the overall guidance of the MoA. This is further explained in section 1.3.3 of the project document and the Participatory Reforestation Plan Manual is attached in Annex 7.

B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of adaptation benefits (LDCF/SCCF)

Local communities, the groups of people in rural mountain areas depending at least in part on forest resources (products and services), include poor households living largely on remittances, shepherds and forest dwellers and refugees from neighboring countries with limited access to decent jobs and livelihoods. They are amongst the most vulnerable groups in Lebanese rural mountain communities. These groups of people from the local communities will be directly involved in and benefit from project activities thanks to the participatory approaches adopted by SALMA. Detailed assessments of the communities involved in project activities will be done during project implementation (output 1.1.1). Indeed, the specific intervention sites will be determined with local communities on a demand driven basis (see selection process in the *Participatory Reforestation Plan Manual* as well as the *Guidelines for Participatory Reforestation* in Project Document Annex 7) and per selected site a detailed vulnerability assessment will be conducted. Land resource users (local communities) such as farmers, shepherds, beekeepers, or other persons at grass-root level will be included in the whole process to circumvent conflict of interests and ensure the sustainability of the project.

In the context of the PPG phase, a social analysis was carried out, in order to make the proposed project interventions more people-centered, socially inclusive, equitable and sustainable by ensuring a close fit with local contexts, culture and livelihoods, and to safeguard the interests of the weaker sections of the population, including women. The social analysis therefore had the purpose to support the delivery of socio-economic benefits alongside environmental and adaptation benefits.

The main concern that was raised by project beneficiaries (including women) during interviews and focus groups carried out during the social analysis was the potentially restricted access to the selected areas for restoration and/or reforestation, and its impact on activities such as wood collection, grazing, access to water sources, and more. As a response to this shared concern, SALMA suggests to directly engage local communities, and in particular women and local youth, in participatory planning, management and reforestation activities, not the least to recommend resources use and restrictions. Suggested participatory planning processes include the identification of the reforestation sites, pathways for herds, alternative grazing areas, or areas for wood collection and honey production, among others. As mentioned above, Participatory Reforestation Guidelines and Manual have been prepared in the context of the SALMA PPG phase, and will be shared with Consortia of communities and NGOs that are participating in SALMA activities. These guidelines and manual describe in detail how the civil society can be involved in the planning, implementation, and maintenance of the reforestation sites (see Annex 7 of the Project Document). Moreover, SALMA will provide grants to selected community groups, to support ecosystem based activities and businesses aimed at improving the livelihoods and employment opportunities of targeted municipalities, including for instance, setting up community run businesses on forest waste to produce wood briquettes and/or supporting community groups in developing and setting the basis for Wood and Non Wood Forest Products (NWFP) value chains, production, processing and marketing of nuts, honey or/and aromatic plants. Community groups will be supported in planning for proposals through FAO's RuralInvest toolkit which will provide guidance on the participatory

identification of investment needs and assess natural resources, economic and social activities, institutions and infrastructures in the area to determine opportunities and constraints, future priorities and resulting investment needs. Applicants will be trained through RuralInvest in preparing and appraising their investment proposals and seeking or extending funds (through grants or credit) to support rural investments and business development. The project will ensure that proposed investments are climate proof, gender sensitive and inclusive. Priority will be given to women groups and cooperatives and to the most marginalized community members such as refugees. In each community, one or two such community projects will be sustained and followed-up with through time in collaboration with local NGOs/CBOs.

During the PPG social analysis different levels of women representation in different communities were observed. As a response, SALMA suggests to organize separate sessions for women in those communities where women have a lesser voice, guaranteeing their inputs in decision-making, planning and management activities proposed by SALMA. These separate sessions, at first, hope to enhance the sense of ownership of women over the restored and reforested areas and the project in general.

In conclusion, resulting from the social analysis, SALMA project activities have been designed so to create an enabling environment for women to: (i) participate in and benefit from project implementation and results; and (ii) increase their capacity to adapt and respond to climate and environmental changes. Particularly, the project aims at generating opportunities for additional income from forest wood and non-wood products (e.g. wood bricks, honey, medicinal and aromatic plants, etc.) and equal opportunities to benefit from these opportunities will be ensured, fully accounting for the different needs of women and men. In order to monitor progress on gender equality in the project and its results, gender-sensitive indicators have been included in the results matrix, and during the first 3 months of the project, a gender expert will be working with the M&E expert in order to ensure the set-up of an M&E system that facilitates gender mainstreaming.

B.3. Explain how cost-effectiveness is reflected in the project design

The SALMA project aims at offering cost-effective guidance and approaches/processes for reforestation and forest management resilient to climate change. The participatory reforestation/restoration plans that were developed during the PPG phase and that will be used throughout project implementation, provide special guidance on how to improve work norms, reduce operating costs and enhance benefits to local communities from reforestation and sustainable forest management (see annex 7 of the project document). In terms of reforestation, SALMA's objective is to significantly reduce costs normally ranging from USD 4 400 to USD 10 000 per hectare (at a density of 800 seedlings/Ha) to around USD 2 500 per hectare.

Furthermore, the focus of the SALMA project shifted towards resilient forests and forest ecosystems (and not only reforestation as in the PIF approved SALMA). Resilient forests are less prone to forest fires and forest pest outbreaks. Mitigating the expected negative impacts from climate change on fragile forest ecosystems, SALMA promotes a preventive approach to forest fires and forest pest outbreaks, which is more cost effective than the reactive forest fire control/combating approach.

C. DESCRIBE THE BUDGETED M & E PLAN

Monitoring and evaluation of progress in achieving project results and objectives will be done based on the targets and indicators established in the Project Results Matrix (Annex 1 and described in detail in Project Document section 1.3.3). The project Monitoring and Evaluation Plan has been budgeted at USD 177, 500. Monitoring and evaluation activities will follow the FAO and GEF monitoring and evaluation policies and guidelines. Supported by Component 3 the project monitoring and evaluation system will also facilitate learning and mainstreaming of project outcomes and lessons learned.

Indicators and information sources

To monitor project outputs and outcomes, including contributions to adaptation benefits specific indicators have been established in the Project Results Matrix (see Annex 1). The framework's indicators and means of verification will be applied to monitor both project performance and impact. Following the FAO's monitoring procedures and progress reporting formats, data collected will be of sufficient detail to be able to track specific outputs and outcomes and flag project risks early on. Output target indicators will be monitored on a six-monthly basis and outcome target indicators will be monitored on an annual basis if possible or as part of the mid-term and final evaluations. The project output and outcome indicators have been designed to monitor on-the-ground impacts and progress in building and consolidating capacities for improved sustainable forest management both at the landscape level and at the level of local communities.

The main sources of information to support the M&E programme will be; (i) participatory progress monitoring and workshops with beneficiaries, (ii) on-site monitoring of Participatory Reforestation and Forest Management Plans and related trainings and activities, (iii) PPRs prepared by the NC, (iv) consultants' reports, (v) participants training tests and evaluations, (vi) mid-term and post project impact and evaluation studies completed by independent consultants, (vii) financial reports and budget revisions, (viii) PIR prepared by the LTO supported by the BH and the NC, (ix) FAO supervision mission reports.

The Reporting Schedule is detailed in Section 4.3 of the Project Document.

Evaluations:

An independent mid-term review will be undertaken after two years of project implementation (or at the point where 50% expenditures has been reached). The review will determine progress being made towards achievement of objectives, outcomes, and outputs, and will identify corrective actions if necessary. It will, inter alia:

- review the effectiveness, efficiency and timeliness of project implementation
- analyse the effectiveness of implementation and partnership arrangements
- identify issues requiring decisions and remedial actions
- identify lessons learned about project design, implementation and management;
- highlight technical achievements and lessons learned
- propose any mid-course corrections and/or adjustments to the implementation strategy as necessary.

An independent Final Evaluation (FE) will be carried out three months prior to the terminal review meeting of the project partners. The FE will identify the project impacts and sustainability of project results and the degree of achievement of long-term results. This evaluation would also have the purpose of indicating future actions needed to expand on the existing project in subsequent phases, mainstream and up-scale its products and practices, and disseminate information to management authorities responsible for the management of other project partners.

The Terms of Reference (ToR) for the Final Evaluation team will be prepared in close consultation with the NC, the FAO BH, LTO/LTU and GEF Coordination Unit, and under the ultimate responsibility of the FAO Office of Evaluation, in accordance with the FAO evaluation procedures and taking into consideration the evolving guidance from the GEF Independent Evaluation Office. The ToR and the report will be discussed with, and commented upon by the project partners.

Monitoring and evaluation plan summary

The table below provides a summary of the main M&E reports, responsible parties and timeframe.

Type of M&E Activity	Responsible Parties	Time-frame	Budget
Inception Workshop (IW)	PMU in consultation with the LTO, BH, TSC	Within 1 month after Start-up	USD 3 000
Results-based Annual Work Plan and Budget (AWP/B)	PMU in consultation with the FAO Project Task Force	3 weeks after Start-up and annually with the reporting period July to June	Project staff time
Project Inception Report	PMU in consultation with the LTO, BH, TTC, FAO-Lebanon Report cleared by the FAO BH, LTO and the FAO GEF Coordination Unit and uploaded in FPMIS by the BH	1 month after Start-up	Project staff time
Project M&E Expert	Short Term Consultant	1 month after Start-up	USD 38 500
Supervision Visits	FAO	Mid-term	Project staff time
Project Progress Reports (PPR)	PMU based on the systematic monitoring of output and outcome indicators identified in the project's Results Framework The PPR will be submitted to the BH and LTO for comments and clearance. BH to upload the PPR on the FPMIS.	No later than one month after the end of each six-monthly reporting period (30 June and 31 December)	Project staff time
Project Implementation Review report (PIR)	LTO (in collaboration with the PMU) will prepare an annual PIR covering the period July (the previous year) through June (current year) to be submitted to the BH and the TCI GEF Funding Liaison Officer	August 1, of each reporting year	Project staff time
Co-financing Reports (Disbursement, Output)	PMU	On a semi-annual basis, and will be considered as part of the semiannual PPRs	Project staff time
GEF Tracking Tools	PM and reviewed by FAO LTU	At mid-point and end of project	Project staff time
Technical Reports	Project staff and consultants, with peer review as appropriate	As appropriate	Project staff time and consultants
Mid-term Review	External consultant, FAO Office of Evaluation in consultation with PMU, GEF Coordination Unit and other partners.	6 months before end of project implementation	USD 30 000
Independent Final Evaluation	External consultant, FAO Office of Evaluation in consultation with PMU, GEF Coordination Unit and other partner	3 months prior to terminal review meeting	USD 50 000
Terminal Report	PMU with assistance of other project staff and the FAO LTU	2 months before project end	USD 7 000
Lessons Learned	Project Staff, short-term consultants and FAO	As appropriate	
Overall estimated cost of project staff time for M&E			USD 49 000
Total Budget			USD 177 500

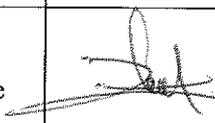
PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S):
 (Please attach the Operational Focal Point endorsement letter(s) with this form. For SGP, use this OFFP endorsement letter).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
H.E. Mr. Nazem EL-KHOURY	Minister	MINISTRY OF ENVIRONMENT	

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Gustavo Merino Director, Investment Centre Division Technical Cooperation and Programme Management FAO Viale delle Terme di Caracalla 00153, Rome, Italy		26 August 2016	Maurice Saade, FAO Representative in Lebanon		Maurice.Saade @fao.org
Jeffrey Griffin Senior Coordinator, FAO GEF Coordination Unit. Investment Centre Division. FAO				+3906 57055680	GEF- Coordination- Unit@fao.org

ANNEX A: PROJECT RESULTS FRAMEWORK

Annex 1 in the Project Document

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Secretariat comment at PIF: *The draft PAD articulates well the key development challenges faced by Lebanon's poor rural communities, and the added risks presented by climate change through higher temperatures and reduced average rainfall. The document could, nevertheless, provide further information regarding the expected impacts of climate change, and associated vulnerabilities, in the proposed targeted areas of (i) North-Lebanon (Akkar Danniyeh); (ii) North Bekaa (North Baalbek and Hermel); and (iii) South Lebanon (South Litani below Lake Karakoun).*

For a number of reasons, including shifting focus of project interventions and eroding security situation in marginal (particular North) areas, the project intervention areas have changed, as mentioned earlier in this document. Nevertheless, for an elaboration on climate change impacts on forests, forest ecosystems and related livelihoods and incomes, please refer to Section 1 of the Project Document and in particular sections 1.1.3 and 1.1.4.

Secretariat comment at PIF: *Moreover, while the document refers to the GEF Strategy on adaptation, it could mention explicitly the relevant CCA objectives, towards which the proposed project is expected to contribute, and identify associated indicators, baselines and targets in the Adaptation Monitoring and Assessment Tool (AMAT).*

Relevant LDCF/SCCF objectives are described in Project Document section 1.3.

The AMAT has been duly completed. Indicators, baselines (were available, otherwise to be completed during FY1) and targets have been identified at the project outcome level as detailed in the Results Matrix (Annex 1 of the Project Document).

Secretariat comment at PIF: *The proposed project seeks to increase access to irrigation and to facilitate access to markets by farmers; and expand the area under reforestation and afforestation in the targeted project areas. While the PDO and several of the key results could entail positive outcomes in terms of reduced vulnerability and increased adaptive capacity, climate change adaptation should be explicitly referenced given the request for SCCF resources.*

The Project Document is now focusing on restoring forest landscape connectivity with targeted interventions addressing both environmental and economic priorities jointly, through the promotion of environmental governance integrating community-based and ecosystem-based adaptation approaches. Please see detailed description of project interventions in Project Document section 1.3.3.

Secretariat comment at PIF: *The project will target three areas, all among the poorest in the country: (i) North-Lebanon (Akkar Danniyeh); (ii) North Bekaa (North Baalbek and Hermel); and (iii) South Lebanon (South Litani below Lake Karakoun). The draft PAD notes that the project would select specific intervention sites based on demand. From a perspective of climate change adaptation and the SCCF, it is not clear whether this approach will allow the project to target the most vulnerable communities, production systems and ecosystems, and thus allow for the most effective use of SCCF resources.*

The Project has been restructured to target selected ecological corridors. Through its community-based approaches to planning and management of forests and forest resources at the landscape level (corridors and watersheds), the Project aims at restoring ecological corridors between fragmented forests patches to ensure forest landscape connectivity. The project will mainly target mountain slopes owned by the state, local communities and religious waqfs. The landscape approach promoted by SALMA will ensure that the planning and management of forest ecosystems and their services are done at the scale needed for effective and climate resilient forest fire and forest pest control. To enhance cross-sectoral coordination and upscale integrated approaches required to achieve adaptation benefits, SALMA will promote a coordinated multi-stakeholder and multi-disciplinary approach that acknowledges the fact that local action planning increases ownership, institutional capacities and coordination. This will be demonstrated using practical and

participatory approaches and tools such as the participatory reforestation plan and the sustainable forest management plan developed in the context of this project.

In 2009, the Lebanese government approved the National Physical Master Plan for the Lebanese Territory (NPMPLT) which provides an initial scheme of land use planning at national level. The master plan foresees different ecological corridors allowing to link together the fragmented natural ecosystems in order to improve their resilience towards different risks, including biodiversity loss and land degradation.

The project targets three ecological corridors, these include:

- (i) The ecological corridor of the western slopes of Mount Lebanon, which on its highest section includes the fruit trees and cedar corridor, and on its lowest section it embeds pine forests and oak woodlands;
- (ii) The ecological corridor of the eastern slopes of Mount Lebanon which is parallel to the previous, from North to South, and includes oak and juniper woodlands; and
- (iii) The ecological corridor of the western slopes of Anti-Lebanon Range, also parallel to the two other corridors and embeds oak and juniper woodlands.

The project seeks to enhance the implementation of these ecological corridors through pilot reforestation activities that would ensure the linkage between the NARP and the NPMPLT. The selected segments of these corridors on which reforestation activities will take place, would respond to the criteria provided by the ARDP project within MOA, concentrating on villages where the participatory approach was conducted, and the willingness of communities to implement these corridors is guaranteed.

Secretariat comment at PIF: *The draft PAD does not provide a clear additional reasoning for the use of SCCF resources, articulating what the proposed project would have been able to achieve in absence of the SCCF grant, how those investments and their outcomes would have been vulnerable in the face of climate change, and how the SCCF allows relevant vulnerabilities to be addressed.*

This comment is no longer relevant for the current SALMA. For details on additional cost reasoning, please refer to Project Document section 1.2.

Secretariat comment at PIF: *With regard to the proposed adaptation measures requesting SCCF financing, the draft document also departs considerably from the Project Identification Form (PIF) approved by the LDCF/SCCF Council. In particular, the draft PAD proposes to focus nearly all SCCF resources on Component 2, and proposes a significantly higher SCCF funding level for project management (\$1 million compared with \$340,000 at PIF). These constitute major amendments to the project design, for which LDCF/SCCF Council Approval would be required.*

As recommended at PIF, the project should clearly demonstrate that the additional afforestation and reforestation measures financed by the SCCF target areas most at risk from climate change, and that these contribute towards the resilience of the investments carried out under Component 1. In addition, it is not clear to what extent the investments proposed under Component 1 would be informed by relevant assessments of climate change impacts and vulnerabilities.

In short, the relevance and contribution of the proposed project to climate change adaptation as well as its alignment with the objectives and eligibility criteria of the SCCF should be thoroughly revisited and strengthened during appraisal.

This comment is no longer relevant for the current SALMA. Still, for details on GEF alternative, please refer to section 1 of the Project Document.

Secretariat comment at PIF: *The GEF invites the team to identify relevant indicators, baselines and targets in AMAT at an early stage of appraisal, to ensure complementarity and synergies between project-level monitoring and the GEF's RBM requirements.*

Please refer to the Project Results Matrix in Project Document Annex 1.

German Council Member's comments at PIF:

Germany requests that the following points will be taken into account during the drafting of the final project document: Germany appreciates that the proposal targets the vulnerability of small farmers and ecologically sensitive areas. However, Germany underpins the comments provided by the Scientific and Technical Advisory Panel (STAP) which show that due to the lack of details, it is difficult to assess the PIF. Germany requests to further describe the intended interventions and to provide more details to the project components and respective expected outcomes.

In addition to the comments from the STAP, Germany asks for further explanations on how the sites for the hill lakes are chosen and how this will be done in a socially acceptable way (expected output i of component 1), to illustrate how beneficiaries will be trained in the modern irrigation networks and whether locally accepted and known technology is taken into account (expected output ii of component 1), to better describe the agroforestry systems considered for application in and elaborate on the benefits that these agroforestry systems will bring for the adaptation process (component 2).

Site selection for the hill lakes: The project design has undergone a number of amendments with the changing baseline context and scenario and changing GEF Agency. As mentioned in the Project Document, only 2 small hill lakes will be constructed within the context of the new SALMA project, in order to improve the readiness to firefighting. This output is entirely part of outcome 1.1 *Improved forest pest and fire management*. The 2 fenced hill lakes will be constructed near vulnerable and extensive forest reserves, namely Qamouaa in the North and Bkassine in the South. The site selection is based on the AFDC map for areas prone to forest fire (see Figure 3 in the Project Document), the presence of forests in the surrounding zone, the accessibility to the site for both civil defense trucks and army helicopters, the geotechnical feasibility of the hill lake, and the willingness of owners to provide the land for this use.

These selection criteria are additional to the general criteria for site selection, which are described in section 1.3.2 of the Project Document (paragraphs 71-74 and table 1) and which support the selection of priority communities and forest ecosystems. These criteria include both socio-economic indicators (poverty index, reported climate vulnerable communities, reported presence of refugee communities, high dependence on remittances, and more), as well as biophysical indicators (vicinity to high value forest ecosystems such as natural reserve, biosphere, reported pest outbreak vulnerability, reported fire vulnerability, and more). Conflict in Lebanon's neighboring country limits the working conditions in part of the country, and therefore, those areas where project intervention would be inhibited by the protracted Syria crisis have been excluded from the potential project intervention area.

Within these identified project areas, the exact locations for both restoration and reforestation activities will be identified by communities and municipalities, based on their priorities, needs and capacity, and informed by science (in order to ensure climate proofing of reforestation for instance), during project implementation year 1. Also a more thorough vulnerability assessment will be carried out in the selected project intervention areas, as illustrated in output 1.1.1, paragraph 84, p.32 so to ensure that within the selected communities and municipalities, the most vulnerable people will benefit from project results *in primis*. This also includes gender considerations.

Training of beneficiaries: This comment is no longer relevant for the current SALMA. Still, for details on training and capacity development of beneficiaries, please refer to section 1 of the Project Document.

Agro-forestry systems: This comment is no longer relevant for the current SALMA.

STAP comments at PIF:

#1. *STAP recommends providing further detail on each component, and its expected outcome. Also, it suggests detailing explicitly the adaptation benefits expected and indicators for each benefit in the full proposal. Currently, the benefits are not specific in the description of the adaptation activities in B.2. Likewise, STAP recommends including the baseline data, or a timeline when the data will be collected, as well as explain how the baseline will be measured and monitored during project implementation. Furthermore, STAP recommends defining further to what extent the baseline activities will help in addressing future climate change. This information will strengthen the additional cost reasoning of the intended interventions.*

Please refer to section 1 of the Project Document.

#2. *In the project overview, STAP recommends detailing farmers' access to markets in the targeted region (proximity to markets, etc.). This information is important for evaluating farmers' ability to successfully adopt high value horticultural crops as a result of irrigation.*

The project no longer targets the above mentioned intervention. Still, the new SALMA will support, through seed funding, community projects for alternative and ecosystem based livelihoods and sources of income. The feasibility of these community projects will be assessed using the RuralInvest tool developed and successfully applied by FAO. RuralInvest includes access to markets in its assessment, an aspect not overlooked by the project.

#3. *To further understand the climate change risks facing the targeted regions, STAP recommends adding climate change projections for Lebanon, or the project region if possible, in the project overview section. One source for this information is Lebanon's climate change profile from UNDP and the University Of Oxford School Of Geography & the Environment <http://www.geog.ox.ac.uk/research/climate/projects/undpcp/index.html?country=Lebanon&d1=Reports>.*

Please refer to Section 1 of the Project Document.

#4. *Under component two, STAP recommends detailing further what tree species will be used in the afforestation efforts. If the tree species are not native, STAP suggests the World Bank undertakes a risk assessment in the use of exotic species during project development.*

The Project intends to undertake reforestation activities using native species only. The choice of tree species is informed by science (most adapted and adaptable species considering climate and climate change, soil type, etc), by previous projects (ARDP in particular) and also takes into account the potential economic return to investments by the communities. Therefore, communities engaged in reforestation activities will have the option to select tree species from a pre-identified list of species suitable for reforestation in the selected area.

#5. *Additionally, it would be useful for the full proposal to consider the implications of climate change on the tree seedlings, and other forest area changes. Information in the IPCC Special Report on Extremes (Managing the risks of extreme events and disasters to advance climate change adaptation, IPCC 2012) may be relevant.*

Please refer to Project Document section 1. The Project intends to climate proof ongoing national reforestation programs such as the NARP by ensuring the use of appropriate tree seedlings and by making sure that reforested land will deliver the expected ecosystem services (reduce forest fragmentation, biodiversity loss and soil erosion and improve water provision).

#6. *Under component 3, STAP recommends defining the methodology that will be used to train the project recipients to estimate and monitor the carbon stock changes. One potential methodology (and tools) the World Bank may wish to consider is the UNEP/GEF Carbon Benefits Project, which is setup to use Tier 1, 2, 3 default values (The GEF Secretariat has further information on this methodology and suite of tools.).*

The Project does no longer target the above mentioned intervention.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS⁵

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: N/A AS NO PPG GRANT WAS REQUESTED			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Total	0	0	0

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

N/A

⁵ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.