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LiF agroforestry site in Bakka (Photo by PMSPL II)

# MID-TERM PERFORMANCE EVALUATION LIVELIHOODS IN FORESTRY (LiF) LEBANON REFORESTATION INITIATIVE (LRI)

## FINAL REPORT

May 2021

This publication was produced by Social Impact, Inc. for the United States Agency for International Development through the Performance Management and Support Program for Lebanon (PMSPL II). It was prepared by Sandra Fahd and Juliette Amidi in collaboration with Joanna Khater and Carine Khoury from Social Impact.

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# MID-TERM PERFORMANCE EVALUATION

## LIVELIHOODS IN FORESTRY (LiF)

### LEBANON REFORESTATION INITIATIVE (LRI)

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Prepared by Social Impact, Inc. for the United States Agency for International Development under USAID Contract/Order No. AID-268-C-15-00001 – Performance Management and Support Program for Lebanon (PMSPL II).

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Social Impact, Inc. Corporate Office  
2300 Clarendon Boulevard Suite 10300  
Arlington, VA, 22201  
Tel: (703) 465-1884  
Fax: (703) 465-1888  
[info@socialimpact.com](mailto:info@socialimpact.com)

Or

Social Impact, Inc.  
Arz Street  
Librex Bldg. Bloc B – 3<sup>rd</sup> Floor  
Zalka, Metn, Lebanon  
Tel: +961-1-879260

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## ABSTRACT

In March 2021, USAID/Lebanon tasked the Performance Management and Support Program for Lebanon II (PMSPL II), implemented by Social Impact, Inc., with conducting an external mid-term performance evaluation of the Livelihoods in Forestry (LiF) Activity implemented by the Lebanon Reforestation Initiative (LRI) non-governmental organization from September 24, 2018 to September 23, 2021 at a total cost of \$5,019,815. USAID/Lebanon provided nine evaluation questions that seek to examine LiF's effectiveness to date, review USAID's contributions to the forestry sector, measure the progress achieved in the reforestation and forest management sector in Lebanon, and provide recommendations for USAID and LiF to follow now and in the future. The evaluation team used a combination of methods to address these questions. The findings show that LiF's restoration component (Sub-purpose 1) is the most significant in terms of community engagement, job creation, gender and youth inclusion, and securing social stability. Construction works are still ongoing at Anjar National Park (Sub-purpose 2), and a longer time will be needed to be able to measure the results. The agroforestry component (Sub-purpose 3) has shown a high probability of success and replicability and could potentially be adopted by other donors and/or farmers. It is the most promising component, as it contributes to food security and economic development. LRI was proactive in the face of Lebanon's many crises and proved highly capable of operating under challenging circumstances. While the economic, financial, and health crises negatively affected LiF's overall progress and activity implementation, they also contributed to increasing community, youth, and women engagement. The project's cash-for-work activities were timely and impactful. USAID is one of the biggest contributors to the forestry sector in Lebanon and has helped raise public awareness and build the capacities of various stakeholders. Given the current situation in the country, environmental activities including forestry will need to be reoriented towards food security and livelihood activities. The evaluation provides several recommendations for USAID and LRI to consider in LiF's remaining duration as well as in future USAID programming.

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## ACRONYMS

ADS	Automated Directives System
AFDC	Association for Forest Development and Conservation
AFD	Agence Française de Développement
AOR	Agreement Officer Representative
CA	Cooperative Agreement
CDCS	Country Development Cooperation Strategy
CNTPL	Cooperative of Native Tree Producers of Lebanon
COVID-19	Coronavirus Disease of 2019
CO2	Carbon Dioxide
CPC	Corridor Planning Committee
CSR	Corporate Social Responsibility
EQ	Evaluation Question
EQUI™	Evaluation Quality Use and Impact
ET	Evaluation Team
EU	European Union
FAO	Food and Agriculture Organization
FTE	Full-Time Equivalent
FY	Fiscal Year (USAID – October 1 to September 30)
GEF	Global Environment Facility
IP	Implementing Partner
IR	Intermediate Result
IRB	Institutional Review Board
KII	Key Informant Interview
LiF	Livelihoods in Forestry
LRI	Lebanon Reforestation Initiative
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation, and Learning
NGO	Non-Governmental Organization
PPP	Public-Private Partnership
PSD	Private Sector Development
PMSPL II	Performance Management and Support Program for Lebanon
SEC	Social and Environment Corridors
SI	Social Impact
SOW	Scope of Work
UNDP	United Nation Development Program
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USFS	United States Forest Service
USG	United States Government
WFP	World Food Programme

# EXECUTIVE SUMMARY

## BACKGROUND AND ACTIVITY SUMMARY

The Livelihoods in Forestry (LiF) activity falls under United States Agency for International Development (USAID)'s Private Sector Development (PSD) project, which aims to increase productive employment in Lebanon through direct support to the private sector. The LiF activity is implemented by the Lebanon Reforestation Initiative (LRI) non-governmental organization (NGO). LiF is the second activity that LRI has implemented since 2015. Following the conclusion of the previous activity in 2018, USAID/Lebanon awarded LRI the LiF activity with a total estimated cost of \$5,019,815. LiF was launched on September 24, 2018 and is set to conclude on September 23, 2021.

The LiF activity is built around one goal, one purpose, and three sub-purposes.

- **Goal:** *To improve rural livelihoods in targeted areas through forestry-related activities while promoting local governance and sectarian harmony in target communities.*
- **Purpose:** *Sustainable forestry activities improved in the target areas through the establishment of models for economic forestry and forest-related rural tourism.*
  - **Sub-purpose 1:** *Social and environmental corridors conserved and expanded through the enforcement of local governance, livelihood gains, and capacity development of local communities.*
  - **Sub-purpose 2:** *The first National Forestry Park in Lebanon established in Anjar.*
  - **Sub-purpose 3:** *Agroforestry for sustainable land management piloted in three sites.*

LRI adopts a grassroots approach to participatory reforestation practices. Its partners include reforestation NGOs, municipalities, unions of municipalities, the Cooperative of Native Tree Producers of Lebanon, the Lebanese ministries of agriculture and environment, and several institutions, universities and individual experts working in forestry research. LRI also partners with private sector companies to leverage funding for reforestation work.

## EVALUATION PURPOSE

With LiF approaching its closing date on September 23, 2021, the LRI/LiF Agreement Officer's Representative (AOR) at USAID/Lebanon requested a mid-term performance evaluation to assess the effectiveness of LiF's activities so far and conduct a review of the forestry sector in Lebanon. The evaluation is intended to provide the Mission with input on LiF's approach and activities in terms of achieving outputs, outcomes, and the stated objectives.

Social Impact, Inc., through the Performance Management and Support Program for Lebanon (PMSPL II) project, conducted this mid-term performance evaluation between April and May 2021. The evaluation analyzed the extent to which LiF's objectives were achieved, evaluating the Activity's outcomes, documenting its successes, challenges, and lessons learned, and analyzing its sustainability for future programming.

## EVALUATION QUESTIONS

This mid-term performance evaluation addressed the following nine questions:

1. What are LiF's headline outcomes and achievements? How have these been documented and analyzed?
2. What are the main factors that influenced positively or negatively LiF's ability to achieve these outcomes? External factors that should be given attention are: COVID-19, the economic

downturn, the currency devaluation, changes in banking operations, the loss of trust in banks, and the Beirut port blast on August 4, 2020.

3. What engagement approaches are perceived to be the most effective and sustainable in contributing to LiF's results in terms of municipality, community, private sector, and NGO (native tree nurseries and others) engagement, and why?
4. How effective were the short-term seasonal jobs that LiF generated?
5. Which previous recommendations were integrated in LiF' scope? Which weren't? And why?
6. How would you describe and measure the progress achieved in the reforestation and forest management sector in Lebanon over the past decade?
7. To what extent do you consider USAID supportive of this sector?
8. How would you anticipate this sector will evolve in the short and long term? Would you recommend any specific policy changes that could facilitate the improvement of this sector?
9. What are the recommendations that USAID/LiF need to take into consideration over the project's remaining duration?

## METHODOLOGY

The evaluation team used a combination of methods consisting of a document review, secondary quantitative data, key informant interviews (KIIs), site visits, and a stakeholder roundtable to address evaluation questions (EQs) specific to LiF in addition to others that examine the forestry sector in Lebanon more broadly. In total, the team reviewed 47 documents (such as progress reports, work plans, agreements, technical reports), visited 11 sites across Lebanon, conducted 25 KIIs with 30 people, and held a virtual stakeholder roundtable with forestry experts.

There were several important limitations to the evaluation methods. The short evaluation timeframe of the evaluation (two months) limited the evaluation team's opportunity to collect primary data, especially in the field, to compare them against secondary monitoring data and the perceptions of KII and roundtable participants. Additionally, since USAID is one of many donors to LRI and to the forestry sector in Lebanon in general, changes and achievements in this sector cannot be solely attributed to USAID and LiF.

## FINDINGS AND CONCLUSIONS

### **EQ1. What are LiF's headline outcomes and achievements? How have these been documented and analyzed?**

LiF has all the foundations and needed tools (e.g., GIS techniques, expertise, connections) to successfully design and implement its tasks, such as connecting the environmental corridors, either as part of its restoration activities or through the agroforestry pilot projects.

For Sub-purpose I, the restoration objectives were partially achieved in all their sub-components. The Fireshed component was implemented in one site out of the three originally selected. Outplanting is at 74%. The CSR component is at 75% as of the end of 2020. LiF still needs time to complete the implementation of planned activities and a longer period after that to measure the direct results and long-term impact.

LRI has shown high capacity to sustain its activities in terms of land restoration, reforestation, and fire prevention. The LiF component complements the previous LRI I and LRI II projects. The work achieved under LiF was boosted by the LRI team's previous and extensive experience in the field including in terms of community engagement.

The achievement of Sub-purpose 2 and its results will need a longer time to be measured, as construction activities are still ongoing in Anjar Park. In addition, since Anjar has environmental, social, and economic assets unique to this area, it will be difficult to duplicate the model in other communities.

As for Sub-purpose 3, LiF achieved the objective of designing and implementing three agroforestry sites. However, the studies that this component must generate are still pending. This component has shown a high probability of success and replicability and could potentially be adopted by other donors and/or farmers. Agroforestry is the most promising component, as it contributes to food security and economic development. However, this sub-sector is still not mature enough among practitioners. During implementation, LiF allotted a lot of time for design and planning and not much time for marketing. While marketing activities are not part of the agroforestry component, they can complement and support it.

**EQ2. What are the main factors that influenced positively or negatively LiF's ability to achieve these outcomes? External factors that should be given attention are: COVID-19, the economic downturn, the currency devaluation, changes in banking operations, the loss of trust in banks, and the Beirut port blast on August 4, 2020.**

LRI was proactive in the face of Lebanon's many crises and proved highly capable of operating under challenging circumstances. While the economic, financial, and health crises negatively affected LiF's overall progress and activity implementation, they also contributed to increasing community, youth, and women engagement. The project's cash-for-work activities were timely and impactful.

In Maaser el Shouf, achieving the intended results had already been compromised since the beginning due to the specificities of the area, and when the economic crisis struck, implementation was further complicated. The area is managed by Chouf Biosphere Reserve (CBR) and has its own development priorities and preferred implementation mechanisms. As stated in LRI's final evaluation (2018), the reserve's management felt they already had community mechanisms in place and preferred to work directly with the project, rather than have the project work directly with communities' committees. As per key informants, the CBR's NGO under the LiF project did not fully engage in the implementation and the monitoring phase and preferred to work on its own. To mitigate this, LiF directly assigned a field officer to follow up on the implementation. The crisis affected the private sector's engagement enormously and had its toll on the performance of many nurseries.

**EQ3. What engagement approaches are perceived to be the most effective and sustainable in contributing to LiF's results in terms of municipality, community, private sector, and NGO (native tree nurseries and others) engagement, and why?**

Stakeholder involvement in LiF's activities varied considerably according to the type of activity conducted and throughout the phases (project identification, design, implementation, and operation or management). Private sector (companies and landowners) engagement is more marked where there is a higher economic interest.

Communities are more engaged in LiF's work compared to the previous LRI project, mainly due to people's increased awareness of forestry issues over the past decade. The engagement of municipalities on the other hand is highly dependent on the type of activity and the municipalities' financial ability to manage, monitor, and execute tasks under the fire prevention and land restoration components.

Local NGOs were not involved in decision-making under the restoration component and only acted as the main link between communities/municipalities and LRI. The project had a more extensive collaboration with international agencies, which leveraged funds in several USAID activity sites.

As for the Anjar National Park, LiF extensively involved a local NGO in decision-making in addition to execution and operation management. This NGO is likely to remain engaged beyond LiF's lifetime, as it is very active in Anjar and its members are all locals.

Nurseries didn't play a major role under LiF, and their activities were limited to supplying seedlings for outplanting activities upon a preorder agreement.

#### **EQ4. How effective were the short-term seasonal jobs that LiF generated?**

The COVID-19 lockdowns and the economic crisis helped LiF get closer to achieving its intended results, as many people moved back to their villages from the city and were in need of work. This population shift increased participation in reforestation and forest management activities, which contributed to people's livelihoods.

LiF helped create seasonal jobs in villages at a time when employment opportunities were scarce locally and nationwide. Under Sub-purpose I, the project helped generate continuous job opportunities for locals in planting, weeding, etc. throughout the year. LiF also created jobs in seasons during which economic activity is low and few work opportunities are available, i.e., when rural tourism and agriculture harvesting are minimal.

The difficult situation also encouraged the participation of women and youth who needed a source of income close to their homes.

#### **EQ5. Which previous recommendations were integrated in LiF' scope? Which weren't? And why?**

First, it is important to indicate that the LiF project was launched in September 2018, before LRI II's final performance evaluation was conducted in November 2018.

LiF does not take into consideration the LRI II final evaluation recommendations related to the rehabilitation of quarries, the sustainability of fire prevention, the inclusion of diverse species that have economic value, and the CO<sub>2</sub> sequestration tool.

The CO<sub>2</sub> sequestration method is included in the ongoing study on Ecosystem Services. Regarding the inclusion of diverse tree seedlings, including for charcoal production, while LRI didn't incorporate this activity under LiF, it did include it under another project funded by UNDP. LiF did not tackle the quarry rehabilitation component at all, as this activity is costly, and the private sector was not interested in collaborating on this front.

Despite LRI II's negative experience in Maaser el Shouf in the past (as indicated in the LRI II final performance evaluation), LiF still included the Shouf corridor and area as part of the three selected corridors.

Under LiF, just like under LRI I and II, fire prevention's sustainability is still an issue that needs to be addressed more broadly, as it doesn't involve the local communities alone, but also diverse stakeholders (such as the civil defense) that are not directly involved in USAID projects. As for Firewise, it was scaled up to Firesheds under LiF.

#### **EQ6. How would you describe and measure the progress achieved in the reforestation and forest management sector in Lebanon over the past decade?**

In 2012, the Ministry of Agriculture launched the "40 million trees" reforestation project to restore degraded lands and increase Lebanon's forest cover while meeting the ecological, social, and economic needs of sustainable forest management across regions. This initiative increased international donors' interest in reforestation activities. Unfortunately, there are no comprehensive data at the national level to measure or track to what extent and how this project is being implemented.

During the past decade, the techniques used and activities conducted in reforestation work, such as large scale planting days and the monoculture of pines and cedars, have progressed. Reforestation campaigns and interventions have moved from large scale, one-day planting to short-term projects, and they sometimes take up to three years to get completed, e.g., the USAID-funded LiF activity and the

Improving Livelihood Through Forestry project funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and supported by World Food Program (WFP) MENA.

Despite the use of new techniques, the cost of reforestation did not go down during the past years and remains a challenge for the sector in the absence of funding from international donors. Furthermore, reforestation has a narrow socio-economic impact, as it does not incorporate a productive or objective management of natural resources.

In addition to the technical aspect, there is an increased awareness of the positive impact of forests on the environment and the wellbeing of people among both urban and rural communities. Forests are now seen as a favorable factor on many levels, including rural tourism, livelihoods, education, spirituality, etc. The involvement of communities in planting days and awareness campaigns created a sense of ownership of the projects among people who now understand and demand the protection of their natural resources, be it for reforestation purposes or livelihood support.

Pilot projects, mainly under urban afforestation, funded by the private sector and involving volunteers are being implemented under a project called Beirut RiverLess Forest in Sin el Fil and Zouk using the Miyawaki method. Their goal is to restore municipal and private lands/gardens using a landscaping approach. The Miyawaki method ensures high survival rates and allows for the successful restoration of forest patches in a timely manner.

#### **EQ7. To what extent do you consider USAID supportive of this sector?**

USAID is one of the biggest contributors to this sector with around \$25 million mobilized under LRI and LiF. It has helped build the capacities of local communities, nursery owners, and experts; created the needed tools for assessing land degradation and fire risks; implemented pilot reforestation and agroforestry projects across the country; enriched the knowhow of stakeholders by developing initial data baselines; and provided technical support to nurseries. Under LRI project, USAID also developed the National Guidelines for Nursery Management (in October 2018) and began mapping available public land plots suitable for planting and specifying the types of trees that can be planted on each site.

Thanks to USAID's efforts, Lebanon's forestry sector took a major leap forward. For instance, the seedling survival rate rose from less than 10% to more than 70% due to the improvement of the seedling quality and the adoption of technical guidelines achieved under LRI Project. USAID has also contributed to raising community awareness of fire prevention and forest management. Many donors are building on USAID's implemented projects and focusing on scale-up work.

#### **EQ8. How would you anticipate this sector will evolve in the short and long term? Would you recommend any specific policy changes that could facilitate the improvement of this sector?**

Given the current situation in the country, most donors are redirecting their focus towards food security and livelihoods activities. Environmental activities, including forestry, should follow the same path. Agroforestry in particular is a natural evolution from the conventional reforestation activities that have been implemented so far. Regulating rural tourism activities will help prevent damage to the ecosystems from which these activities benefit. Finally, urban forestry projects benefit many people at once due to the high population density in cities, especially since there is already a huge demand for parks and recreational areas there.

### **RECOMMENDATIONS**

#### **EQ9. What are the recommendations for USAID and for LIF that need to be taken into consideration for future interventions or during the remaining project timeframe?**

##### ***Land Restoration (LIF)***

Should reforestation activities continue during an extended implementation period, LiF should increase biodiversity and boost natural regeneration further by planting nursing species or companion crops. The reintroduction of key species is fundamental to increase biodiversity and enhance the natural vegetation under environmental constraints (climate, soil, etc.) without further human intervention.

The adapted Miyawaki tool could provide a fast and new innovative method for the forestry sector in Lebanon to restore degraded lands in urban and rural areas and recreate an entire ecosystem, from shrubs to canopy trees. LiF should also encourage small landowners, municipalities, and agriculture players to plant trees native to their regions.

In addition, LiF should promote the use of fast-growing species with high economic value for the benefit of the local communities in agroforestry and reforestation, i.e., the Charcoal method.

### ***Nurseries (LiF and USAID)***

Within the project's remaining timeframe and should outplanting activities continue, LiF should change nurseries' business engagement in the project and consider payment associated with deliverables. The deliverables can be set by the implementing partner according to technical specifications, such as the purchase of seeds, the preparation of soil and planters, and the delivery of seedlings. Such arrangement would secure a much-needed financing to the seedlings' production. In future activities, USAID should consider assisting nurseries by developing a new marketing strategy for native species.

### ***Private Sector (LiF and USAID)***

LiF and USAID should encourage companies/diaspora to direct their CSR efforts towards livelihood assistance besides restoration activities. In other terms, they should encourage the private sector/diaspora to adapt their CSR approach to respond to emerging priorities, such as food security, fire prevention, and/or agroforestry instead of focusing on reforestation and planting activities only.

### ***Agroforestry (LiF and USAID)***

LiF should consider adopting the dense seeding technique in new agroforestry sites using native species and fast-growing plants. This should be included in the design and implementation phases.

Furthermore, LiF should avoid investing in auxiliary equipment and infrastructure such as installing kiosks and providing dairy machinery at late stage of implementation, as their impact and generated income won't be captured within the project's timeframe.

For future agroforestry activities USAID should also encourage implementing agroforestry practices in lands and orchards that have already been planted as opposed to unplanted lands. This would help capture the real impact of the agroforestry component faster and implement it at a lower cost.

Additionally, USAID should consider promoting agroforestry within its agriculture activities and projects.

### ***Fire Prevention (LiF and USAID)***

If the implementation period is prolonged (at least till January 2022), LiF should mobilize budget and resources to prioritize the completion of the remaining Fireshed sites. LiF should expand the Firewise tasks to also provide tools, devices, and small equipment to municipalities to ensure the sustainability of fire prevention and management if there is enough budget to be reallocated.

### ***Forest Management (USAID)***

USAID should continue its support for a better sustainable management of forests and raising public awareness of regulations and good practices, including making sure that people understand that forests are a shared resource and should not be overexploited. USAID should also encourage engaging municipalities and agriculture players in promoting the use of native trees and raising public awareness of their importance on many levels (economic, forest management, etc.).

In addition, USAID should promote balance between community development and forest preservation. USAID should also support forest management activities in a way that ensures the sustainability of forest resources and their sound management by local communities to prevent the latter from overexploiting or depleting them due to poverty.

Furthermore, USAID, through its Local Development portfolio, might consider implementing a financing scheme for municipalities to support local ecosystems and the communities that protect forests. For instance, there's a USAID-funded project that supports local NGOs to maintain (prune, clean, etc.) forests. Another way could be by supporting municipalities to partner with a private company specialized in maintaining forests and ecosystems. A public-private partnership (PPP) could be developed and supported by a USAID-funded activity. For instance, every year, the municipality of Bkessin invites companies to bid and exploit its pine forest. Such model could be replicated in other municipalities with different purposes, such as pruning and using the resulting wood to make charcoal.

LiF is currently conducting an Ecosystem Valuation study that assesses all the ecosystem services from which a community can benefit and has identified these as potential income generating activities from forests. USAID should strengthen the relationship between people's livelihoods and the various ecosystem services (provisioning, regulating, supporting, and cultural services) in the short and long term. Rural communities that rely on non-wood forest products such as honey, pine nuts, and wild zaatar picking to improve their livelihood by providing food, additional income, and employment opportunities could benefit from additional USAID support in these areas. Climate change should also be taken into consideration in all practices and planning and production phases, for example in terms of species diversification, species selection, afforestation method, etc.

USAID and other sector stakeholders should encourage small landowners to use native trees in their landscaping. They should also conduct and disseminate studies on urban forestry, such as biodiversity studies on ecosystems, habitat regeneration, etc. The urban forestry sector should be considered beyond rural reforestation and corridor rehabilitation.

### ***Local Development and Governance (USAID)***

Sector stakeholders, including USAID, should promote more collaboration between key stakeholders to avoid the duplication of efforts and activities and help these stakeholders to build on previous projects using the developed tools and studies to achieve a holistic approach in environmental conservation and land restoration. They should also coordinate and collaborate with the Ministry of Agriculture's regional offices to reach out to actors in remote areas and monitor forest lands and restored lands.

Additionally, key stakeholders should advocate for integrating forestry into policies and laws as a major contributor to the economy and expand the list of species to be protected and conserved.

Furthermore, USAID should help organize rural tourism activities and mitigate this sector's adverse effect on reforested areas.

### ***Economic Growth (USAID)***

USAID should consider supporting municipalities or local cooperatives to process agricultural residues (such as residues and by-products of the olive-oil production chain) and wood resulting from tree pruning to generate secondary products that can be used by the community, such as wood logs for

heating purposes. This type of assistance would be very useful in light of the recurrent fuel crises (availability and/or price hikes) and could prevent illegal logging.

USAID should consider implementing similar cash for work and livelihood activities during the current economic crisis, these should be focused on maintenance and sustainable forest management.

USAID should consider conducting a value chain assessment to cover all services provided by forest ecosystems (provisioning, regulating, supporting, and cultural services) and integrate its recommendations in USAID's Economic Growth and Local Development Offices' portfolios.

### **Visibility (LiF)**

LiF should prioritize the dissemination and release of the studies it conducts and should carefully schedule these studies to serve their objective within the project's life.

LiF should also enhance the visibility of USAID branding and signage during implementation in all activity sites, such as agroforestry sites, fire prevention sites, and reforestation sites.

## INTRODUCTION

The United States Agency for International Development (USAID) awarded a \$5 million Cooperative Agreement (CA) to the Lebanon Reforestation Initiative (LRI) non-governmental organization (NGO), under CA No. 720-268-18CA-00003 to implement the Livelihoods in Forestry (LiF) activity. LiF is to run from September 24, 2018 to September 23, 2021.

### ACTIVITY SUMMARY

<b>Activity Name</b>	Livelihoods in Forestry
<b>Acronym</b>	LiF
<b>Start Date</b>	September 24, 2018
<b>End Date</b>	September 23, 2021
<b>Budget</b>	\$5,019,815
<b>Awardee</b>	Lebanon Reforestation Initiative (LRI)
<b>Cooperative Agreement #</b>	720-268-18CA-00003

### CONTEXT

The LiF Activity falls under USAID/Lebanon's Private Sector Development (PSD) project which supports the achievement of the 2014-2020 Country Development Cooperation Strategy (CDCS)'s Development Objective 2 "Inclusive Economic Growth Enhanced." More specifically, LiF supports the achievement of PSD Result 2 "Livelihoods improved particularly to rural areas and for women," by contributing to PSD Intermediate Result (IR) 2.3 "Improved environmental managements," both of which designed to meet the PSD project purpose "Increased productive employment in Lebanon through Direct Support for the Private Sector."

The LiF Activity is built around one goal, one purpose, and three sub-purposes.

- **Goal:** *To improve rural livelihoods in targeted areas through forestry-related activities while promoting local governance and sectarian harmony in target communities.*
- **Purpose:** *Sustainable forestry activities improved in the target areas through the establishment of models for economic forestry and forest-related rural tourism.*
  - **Sub-purpose 1:** *Social and environmental corridors conserved and expanded through the enforcement of local governance, livelihood gains, and capacity development of local communities.*
  - **Sub-purpose 2:** *The first National Forestry Park in Lebanon established in Anjar.*
  - **Sub-purpose 3:** *Agroforestry for sustainable land management piloted in three sites.*

LiF is implemented by the LRI NGO whose mission is to restore Lebanon's native forests and instill commitment to reforestation and wildfire prevention and response through capacity building of local communities and organizations. Their team was formed under the former LRI Activity, a Participating Agency Partnership Agreement (PAPA no. AID-268-P-00-10-00046/ Modification No. 7) with USAID and the US Forest Service (USFS). The LRI activity was launched in 2010 by USFS's Office of International Programs through USAID's support and funding. Phase I of the LRI Activity was completed in June 2015 with a total funding of \$12.6 million. In July 2015, the LRI NGO embarked as a sub-awardee on LRI Activity's Phase 2, a three-year, \$7-million Activity with a modified scope. The USFS worked in close partnership with USAID/Lebanon to implement Phase 2, which was completed in December 2018.

## DEVELOPMENT HYPOTHESIS

The LiF Activity is based on the theory that rural communities that sustain their forest resources will have improved livelihoods through the economic benefits of seasonal job creation and increased income from reforestation if they are supported to 1) have good governance over their shared resources, 2) participate in forest conservation activities, 3) improve their skills in forest management, and 4) establish forest-related economic activities.

In addition, the LiF Activity aims at bridging the gaps identified in the forestry sector to achieve a long-lasting impact that adds to the impact already achieved through the previous LRI Activity (Phase 1 and 2) and to bring the sector to a more self-sustainable status.

## CRITICAL ASSUMPTIONS

The major critical assumption, as listed in LiF's monitoring, evaluation, and learning (MEL) plan, is that the security situation in the areas of coverage—namely the North (from Ehden to Ehmej), Chouf, Rachaya, West Bekaa, Metn, and Kesserwane districts—would remain the same and would allow for a safe and successful activity implementation. In case the security situation changed or the current conflicts on the borders expanded to any of the work areas, the affected area would have to be removed from the activity implementation zones.

Minor assumptions include the following:

- The Activity assumes a stable administrative context at the municipal level, and a continuity of activities with the possible change of municipal boards. The risk in this assumption resides in the fact that some municipalities are elected based on political backgrounds and new municipal boards might refuse to continue a project started by the previous one. Such risks will be assessed as they arise and negotiations with new municipal boards will be carried out to continue previously set activities with minor modifications responding to the new boards' objectives.
- The Activity also assumes that all target municipalities proposed will be willing to collaborate and interested in implementing the project activities. In case some of those municipalities are not interested and refuse to be included in the project, the municipal land of those towns will be excluded, after several negotiations and attempts for motivation, from all related activities.
- The Activity assumes that the private sector will be willing to collaborate with relevant municipalities and contribute to the implementation of the planned activities. In case local private sector entities are not available, entities from across Lebanon will be outreached to be engaged in relevant activities.

## EVALUATION PURPOSE AND QUESTIONS

### PURPOSE

With LiF approaching its closing date on September 23, 2021, the LRI/LiF Agreement Officer's Representative (AOR) at USAID/Lebanon requested a mid-term performance evaluation to assess the effectiveness of LiF's activities so far and conduct a review of the forestry sector in Lebanon. The evaluation is intended to provide the Mission with input on LiF's approach and activities in terms of achieving outputs, outcomes, and the stated objectives.

Social Impact, Inc., through the Performance Management and Support Program for Lebanon (PMSPL II) project, conducted this mid-term performance evaluation between April and May 2021. The evaluation analyzed the extent to which LiF's objectives were achieved, evaluating the Activity's outcomes, documenting its successes, challenges, and lessons learned, and analyzing its sustainability for future programming. It also addresses gender as a crosscutting element in all activities, showing to what extent LiF has adhered to USAID's gender integration requirements.

### EVALUATION QUESTIONS

The evaluation addressed nine evaluation questions (EQs) based on a scope of work (SOW) and consultations between USAID/Lebanon, PMSPL II, and the evaluation team (ET).

#### LIF EFFECTIVENESS

##### **To what extent has the LiF Activity achieved its intended purpose and outcomes?**

1. What are LiF's headline outcomes and achievements? How have these been documented and analyzed?
2. What are the main factors that influenced positively or negatively LiF's ability to achieve these outcomes? External factors that should be given attention are: COVID-19, the economic downturn, the currency devaluation, changes in banking operations, the loss of trust in banks, and the Beirut port blast on August 4, 2020.
3. What engagement approaches are perceived to be the most effective and sustainable in contributing to LiF's results in terms of municipality, community, private sector, and NGO (native tree nurseries and others) engagement, and why?
4. How effective were the short-term seasonal jobs that LiF generated?
5. Which previous recommendations were integrated in LiF' scope? Which weren't? And why?

#### SECTORAL REVIEW

6. How would you describe and measure the progress achieved in the reforestation and forest management sector in Lebanon over the past decade?
7. To what extent do you consider USAID supportive of this sector?
8. How would you anticipate this sector will evolve in the short and long term? Would you recommend any specific policy changes that could facilitate the improvement of this sector?

#### RECOMMENDATIONS FOR USAID/LIF

9. What are the recommendations for USAID and for LIF that need to be taken into consideration for future interventions or during the remaining project timeframe?

## EVALUATION METHODS

The ET used a mixed evaluation methodology consisting of a document review, secondary quantitative data, key informant interviews (KIIs), site visits, and a stakeholder roundtable to address questions specific to LiF and others that examine Lebanon’s forestry sector more broadly.

Qualitative methods included a document review and 25 remote KIIs (see Table 1) with a total of 30 participants. This information was supplemented with quantitative data available from activity monitoring reports. However, no primary quantitative data were collected. This evaluation also relied on the review of activity documentation (e.g. CA, work plans, annual reports, technical reports and studies, activity website, etc.).

**Table 1: List of KIIs conducted**

<b>Stakeholder</b>	<b># KII (# individuals)</b>
USAID	1 (1)
LRI	10 (10)
Nurseries	3 (8)
Municipalities	3 (3)
Agroforestry sites	3 (3)
Community members	3 (3)
Private sector	1 (1)
NGO	1 (1)
<b>Total</b>	<b>25 (30)</b>

The ET used a combination of in-person (site visits, KIIs) and remote primary data collection (KIIs, sector roundtable), while adhering to all national health guidelines to ensure the safety of all participants and team members in light of COVID-19. Informed consent was obtained from every participant, and the interviews were conducted using KII guides developed for each participant category. These instruments were reviewed and approved by Social Impact’s Institutional Review Board (IRB).

These approaches, in addition to a sector roundtable with 16 forestry sector stakeholders, allowed the ET adequate information to address the EQs within a limited period of time. The EQs were mapped against data sources, collection methods, and analysis methods. A more detailed description of the evaluation design and methodology is presented in Annex B.

## FINDINGS AND CONCLUSIONS

The sections below present the findings and conclusions of EQs 1 to 8. Based on these and on the roundtable discussion, EQ9 provides recommendations for USAID, LRI, and any other entity interested in working in the forestry and reforestation sectors.

### LIF EFFECTIVENESS

#### EQ1. What are LiF's headline outcomes and achievements? How have these been documented and analyzed?

##### EQ1 FINDINGS

The findings here are presented according to LiF's three sub-purposes.

- Sub-purpose 1: Social and environmental corridors conserved and expanded, through enforcement of local governance, livelihood gains, and capacity development of local communities

Sub-purpose 1 is a logical extension of the previous LRI project. It includes several sub-components such as reforestation, forest management, fire prevention, corporate social responsibility (CSR) engagement, youth, and general public awareness and covers the livelihood aspect under each. It also focuses on community engagement and networking, capacity building, change of perception, linking forests to livelihoods, forest conservation, etc.

All interviewed LRI team members and USAID representatives agreed that the most significant component is restoration (connecting corridors and fire prevention program), as it contributed the most in terms of community engagement, job creation, gender and youth inclusion, and social stability.

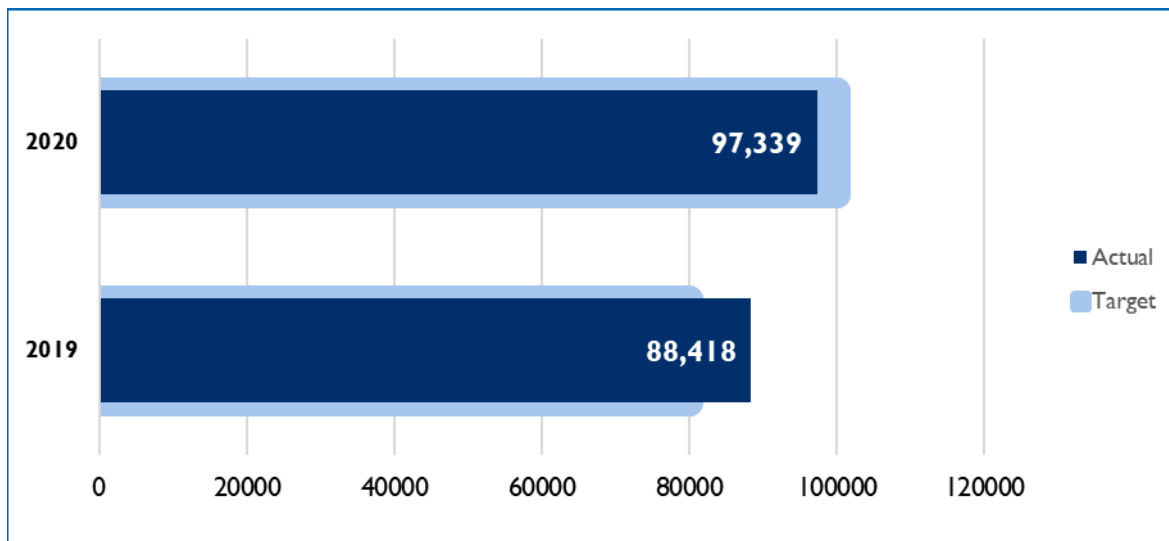
LiF's monitoring data in this regard indicate the following:

- Seedling survival rate: average of 76% (vs. a target of 75%) across different areas.
- Community engagement: 72 communities (vs. a target of 44). These are communities represented in the Socio-Environmental Corridors (SEC) and Firewise/Fireshed committees and communities involved in reforestation activities.
- Number of people with increased economic benefits: 848, of which 711 were reached through reforestation activities (vs. an overall target of 300).

LRI has designated three community committees—the corridor planning committees (CPCs) of the North, Rachaya and Shouf corridors—to be connected under LiF. At a later stage, the Shouf corridor was shelved due to several factors (discussed below in EQ2).

Although LiF surpassed its target in FY2019 in terms of the number of seedlings planted in restoration sites, it failed to meet the target for FY2020 due to the COVID lockdowns. By the end of 2020, it had planted 185,757 seedlings vs. a target of 250,000, which places it at 74% of its Life of Project (LOP) target.

Commonly, LiF preorders the seedlings one year earlier from the Cooperative of Native Trees and Plants in Lebanon (CNTPL) nurseries. Due to delays in planting and the rejection of several low-quality seedlings, many nurseries were left with a lot of unsold plants on their hands. Moreover, according to eight key informants, seven out of ten nurseries do not meet the standards and often encounter problems with unsatisfied customers (LiF in this case) who are left with no other option but to return the low-quality seedlings to the nursery.



**Figure 1: Planted seedlings vs. targets in FY2019 and FY2020**

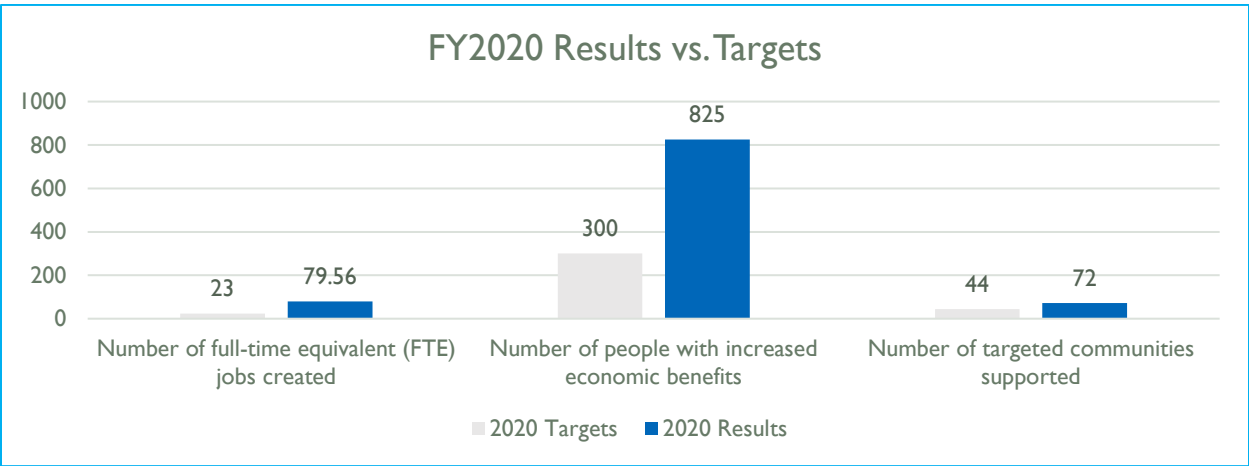
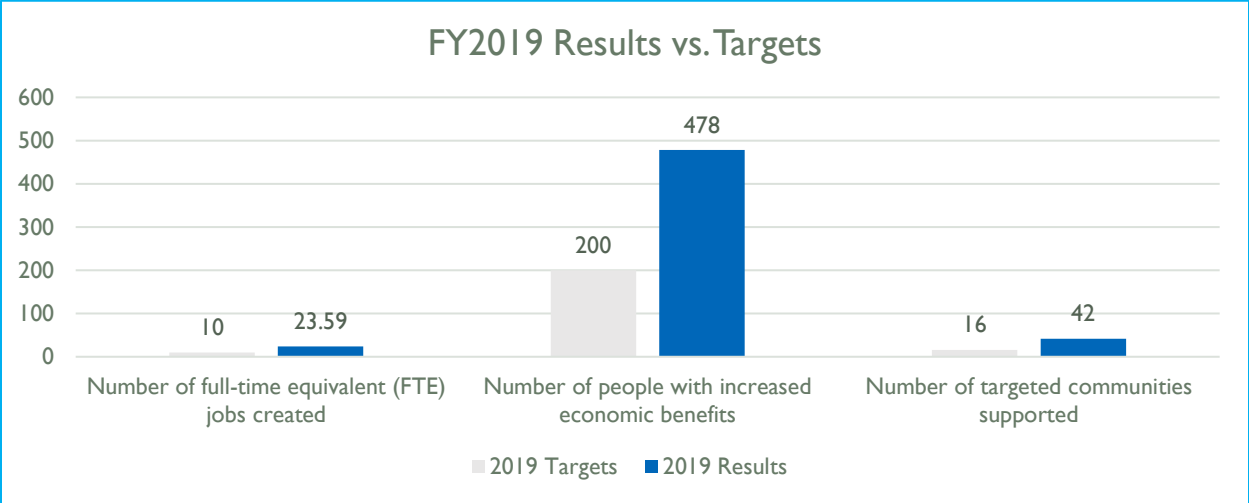
According to key informants from LRI and CTNPL, restoration sites are generally planted with one main native tree species (such as *Cedrus libani* or *Pinus pinea*) accounting for more than 60% of the planted seedlings in a given site, which creates a favorable environment for the spread of disease, a situation that is exacerbated further by climate change. During the field visit to Anjar, the ET was able to confirm that many pines planted during the past projects (LRI phases I and II) were diseased.

LiF offered several awareness sessions on natural resource management, fire prevention, and gender equity to community representatives and activists.

As part of the fire prevention component, LiF selected three fire-affected sites (Nahr el Kaleb, Hasbaya, and Qadisha) to implement fire prevention activities. However, the project implemented activities in Nahr el Kaleb only and was unable to push activities in Hasbaya and Qadisha past the design stage due to several factors (discussed below in EQ2). LiF was able to implement the fire-affected activity in Nahr el Kaleb because studies and fire risks assessments had already been conducted under LRI phase II (2014-2018), addressing fire hazards and site vulnerabilities in the area, in addition to the fact that the United Nations Development Program (UNDP) leveraged funds to procure the needed equipment and tools such as pruning shears and trimmers.

Some tasks were delayed and other cancelled. For instance, Activity 1.8.2. “Assess environment degradation caused by one private sector entity” and Activity 1.8.3 “develop a proposal for this entity to rectify the damage” were dropped because LiF could not engage the private sector in them due to lack of interest in the selected areas (more on this in EQ2 below). As such, LiF will not be able to achieve the final target of planted seedlings. Yet, despite all the challenges, and as reported in LiF’s progress reports, the project has partially achieved and, in some cases, surpassed, all the indicators used to measure the progress towards the indicators’ targets aligned with the Y1 and Y2 annual workplans.

There is no unanimity among the respondents on how activity 1.8 “Model Economic-based proposals for reforestation and forest management for the private sector and Lebanese diaspora, focusing on valuing ecosystem services” will be carried forward.



**Figure 2: Main indicators’ results vs. targets for FY2019 and FY2020**

- Sub-purpose 2: The first National Forestry Park in Lebanon established in Anjar

Under this purpose, LRI responds to the need for creating work opportunities for youth in Anjar in a positive and eco-friendly concept, while developing the local economy and public awareness of the environment. LRI was able to establish the first national forestry park with responsible tourism in Lebanon as a model for natural resource conservation, environmental public education, and rural economic development. The park serves as a training center for youth and an outdoor educational facility for children.

Anjar Park is composed of different eco-tourism activities scattered across the village. LiF implemented the activities identified in the design plan with the local community and hired a group of six youths. These activities are centralized within the park’s “House,” which is managed by a local NGO. At the time of this evaluation, LiF had not yet completed all the tasks stipulated in the contract. These are expected to be concluded by the project’s end date.

LiF dropped the installation of solar panels. According to one key informant, this task was technically challenging due to the area’s geographic spread. The activities and infrastructure of Anjar Park are

scattered across the village, which makes the solar panel difficult and costly to install and to connect to a centralized plant to generate energy.

The local municipality and community adopted the park, which became a tourist attraction for locals and outsiders with a potential of income-generating activities. Per the contract, the park is supposed to generate “income through diversified means including low fee entrance tickets, activity tickets for biking, hiking, or canoeing, with an additional option for hiring local guides, strawberry and blueberry picking activity fees, nursery seedling sales, sales of food items developed at the processing facility, lodging at the bangalows, group rentals for the outdoor green field for meditation and sports and a series of packages and events that can be developed around the Park.” However, during data collection, the municipality informed the ET that the park had not begun generating revenue because it was only partially established and because several challenges such COVID-19 were delaying its full functionality.

- Sub-purpose 3: Agroforestry for sustainable land management piloted in three sites

Agroforestry was initially introduced as an incentive program to be piloted on private lands in the three corridors, with the ultimate aim of achieving sustainable land management and conservation through agroforestry designs and principles.

At the time of the evaluation, LiF had implemented all three targeted pilot sites and designed four other pilot sites, according to the project’s 2020 monitoring data. By April 2021, LRI had also secured funding for a total of six additional sites through different donors such as UNDP and WFP, according to key informants.

However, the selection of the three pilot sites did not reflect the different corridors as initially stated in the activity proposal (Maasser el Shouf was dropped due to several reasons -stated in EQ2). The three selected sites are owned by current or former heads of municipalities (Bakka, Mdoukha, and Makne). LiF is supporting agroforestry in the three sites through design, planting materials (irrigation system, plants, shrubs, etc.), fencing, and technical assistance. In addition, the project is planning to provide a kiosk to the Mdoukha agroforestry site, to be used to sell local products, in addition to cheese-making equipment to the Bakka agroforestry site.

Based on the ET’s observations on the ground, LRI has not yet installed any USAID/LiF signage in any of these agroforestry sites.

## EQ1 CONCLUSIONS

LiF has all the foundations and needed tools (e.g., GIS techniques, resources, connections) to successfully design and implement its tasks, such as connecting the environmental corridors, either as part of its restoration activities or through the agroforestry pilot projects.

For Sub-purpose 1, the restoration objectives were partially achieved in all their sub-components. The Fished component was implemented in one site out of the three originally selected. Outplanting is at 74% and won’t be achieved if the LiF ends in September 2021 before the planting season. The CSR component is at 75% as of the end of 2020. LiF still needs time to complete the implementation of planned activities and a longer period after that to measure the direct results and long-term impact.

LRI has shown high capacity to sustain its activities in terms of land restoration, reforestation, and fire prevention. The LiF component complements the previous LRI project. The work achieved under LiF was boosted by the LRI team’s previous and extensive experience in the field including in terms of community engagement.

The achievement of Sub-purpose 2 and its results will need a longer time to be measured, as construction activities are still ongoing in Anjar Park. In addition, since Anjar has environmental, social, and economic assets unique to this area, it will be difficult to duplicate the model in other communities.

As for Sub-purpose 3, LiF achieved the objective of designing and implementing three agroforestry sites. However, the studies that this component must generate are still pending. This component has shown a high probability of success and replicability and could potentially be adopted by other donors and/or farmers. Agroforestry is the most promising component, as it contributes to food security and economic development. However, this sub-sector is still not mature enough among practitioners. During implementation, LiF allotted a lot of time for design and planning and not much time for marketing. While marketing activities are not part of the agroforestry component, they can complement and support it.

**EQ2. What are the main factors that influenced positively or negatively LiF's ability to achieve these outcomes? External factors that should be given attention are: COVID-19, the economic downturn, the currency devaluation, changes in banking operations, the loss of trust in banks, and the Beirut port blast on August 4, 2020.**

### EQ2 FINDINGS

The main factors that hindered LiF's progress are the surge of COVID19 and the ensuing lockdowns and the economic and financial crisis paralyzing the country.

#### ***Factors that affected LiF's implementation negatively***

- Due to the COVID-19 lockdowns, many delays occurred in restoration sites. LiF was unable to conduct its outplanting activities in the right season and the right weather conditions to guarantee the seedlings' survival. Thus the project is unlikely to achieve its targets before its expected end of life in September 2021. With these delays, in addition to the cancellation of the Shouf corridor, CNTPL found itself with seedlings that did not meet the defined standards for future reforestation activities. Unsold seedlings became more than one year old, whereas reforestation standards state that seedlings need to be one year old when planted. This was confirmed by three KIIs and through the field visit to the Bcharre planting site and nursery. The deterioration of the seedlings' quality and the various delays were challenging to LiF 's implementation.
- Based on LRI's final performance evaluation, activity implementation in Maaser el Chouf's restoration site faced several challenges that were mainly related to establishing a committee from neighboring villages since the Shouf Biosphere Reserve has its own formal committee. Ever since LiF launched, the Maaser el Shouf site has been faced with a lack of engagement by the Shouf Biosphere Reserve. As a result, LiF had to hire a field officer to monitor the implementation of the planting activity.
- Interviews with key informants and private sector entities showed that CSR engagement was shelved due to the economic crisis, which hit the private sector hard and affected its ability to contribute to reforestation activities. Private firms' priorities also shifted to sustaining their daily operations. For example, a leading Lebanese bank, which is the main CSR contributor to the Shouf site, ended its engagement due to the financial crisis. According to the latest MEL document shared by LiF, most signed agreements were put on hold and several contracts were cancelled due to the unstable economic situation including the banking crisis and the exchange rate fluctuation. Other contracts were pushed back to the next planting season (2021).
- According to four KIIs and the desk review, due to the lockdowns and the lack of access to some communities, LiF implemented fire prevention activities in one fireshed (Nahr El Kaleb) only and postponed those meant for two other sites (Qadisha and Hasbaya).
- The political unrest that started in October 2019, followed by the COVID-19 lockdowns in 2020, impacted the implementation of Anjar Park, mainly because this component relies heavily on outsourcing products and procurement, as reported in LiF's progress reports and confirmed by

the Klls. In addition to the fact that payments have to be made in U.S. dollars, there were no products available in the market to begin with. The park's launch was thus delayed.

- The agroforestry component was delayed because it is new to LRI and there is a lack of knowhow among applicants, i.e., landowners and implementers.
- The higher number of youth and men that showed readiness to participate in LiF's activities (as a source of income in light of the lockdowns and the economic downturn) resulted in a decrease in the proportion of women participating in income-generating activities in 2020, despite the higher number of women who took part in this work.
- The desk review showed that due to the economic crisis and the devaluation of the local currency, municipalities were struggling to implement their local strategies. The government had been abstaining from paying its dues to municipalities for the past three years; and with the emergence of COVID-19, municipalities found themselves in a worse situation and had to change their priorities accordingly. They allocated their available resources to addressing the pandemic and enforcing lockdowns rather than engaging in environmental activities.

### ***Factors that affected LiF's implementation positively***

According to the most recent monitoring and evaluation (M&E) data made available to the ET, LiF was able to achieve its targets with regards to the number of full-time equivalent (FTE) jobs created and the number of people with increased economic benefits. The Klls linked the achievement of these results to the economic crisis and the lockdowns. In other words, these circumstances increased demand for work and seasonal jobs, with more youth being available to participate in reforestation activities in outdoor settings within their communities. This increased demand for income-generating activities and employment in rural areas is also due to the fact that locals have started focusing more on agriculture and rural/local tourism.

## **EQ2 CONCLUSIONS**

LRI was proactive in the face of Lebanon's many crises and proved highly capable of operating under challenging circumstances. The team shifted to conducting workshops and offering training remotely via the internet. While the economic, financial, and health crises negatively affected LiF's overall progress and activity implementation, they also contributed to increasing community, youth, and women engagement. The project's cash-for-work activities were timely and impactful.

In Maaser el Shouf, achieving the intended results had already been compromised since the beginning due to the specificities of the area (as shown in LRI's final evaluation as well), and when the economic crisis struck, implementation was further complicated. The crisis affected the private sector's engagement enormously, and the lack of private sector funds led to cancelling reforestation activities in the area altogether. With the private sector suspending its cost-sharing, the implementation of future projects might suffer.

CNTPL member nurseries operate differently from one another. As such, the withdrawal of private sector funding and delays in the implementation have impacted them in uneven ways, which in turn reflected differently on their respective performance.

### **EQ3. What engagement approaches are perceived to be the most effective and sustainable in contributing to LiF's results in terms of municipality, community, private sector, and NGO (native tree nurseries and others) engagement, and why?**

## EQ3 FINDINGS

LiF implemented activities on various levels and with different kinds of stakeholders, namely the private sector, municipalities and communities, nurseries, and NGOs.

### ***The Private Sector***

Private sector players had different levels of engagement with LiF. For example, a bank and a car rental firm were involved in funding restoration activities since the beginning of the activity. Private establishments' level of involvement depends on their interest in the proposed work, their CSR strategy, and the visibility and accessibility of the implementation site. In general, the private sector's major contributions were to outplanting activities that provide visibility for the involved funder. Smaller amounts were cost-shared in Sannine and Bekich.

Under Sub-purpose 3, the private sector (private landowners) was engaged as a main cost-sharing partner under the agroforestry component. The direct economic benefit of the agroforestry approach was appealing to these landowners who cost-shared in terms of labor and land preparation. They were involved in the design, implementation, and maintenance of the pilot projects as well as in the selection of plants.

### ***Municipalities and Communities***

Both the desk review and KIIs showed that LiF's activities had not been completely halted during the COVID-19 lockdowns thanks to the strong community base and networking (with CPCs, municipalities, and local communities) that LRI's team built over the past decade under the LRI project and which enabled them to conduct field activities remotely. All communities were highly engaged in LiF's activities with the exception of Maaser el Shouf which had already been minimally engaged since LRI.

The Nahr El Kalb firehed municipalities were highly involved in the design and implementation of the fire prevention component. However, due to the financial crisis, they could no longer cost-share paid labor and the provision of tools. Their major contribution was obtaining permissions and access to sites from the concerned ministries.

Anjar's municipality was also very cooperative and ensured the continuation of the park's implementation to the extent possible during lockdowns.

### ***CNTPL - Nurseries***

Since LRI project and throughout LiF, the CNTPL has positioned itself as the main supplier and provider of native tree seedlings for reforestation projects and initiatives in Lebanon. Under LiF and as stipulated in the CA, native tree nurseries continued to serve as seedling suppliers but received no technical assistance from the project. Key informants indicated that only three in ten nurseries today met the standards that were previously established under the LRI project. Nurseries that were most affected by the degradation of the seedlings' quality are those that rely on the LRI NGO as their main outlet and client. Others that managed to secure an alternative source of funding were less affected by these delays of outplanting activities due to the contextual challenges previously described. According to one KII, there is a need to develop and diversify the nursery market and put a new marketing strategy in place to face the current challenges.

### ***NGOs***

Local NGOs were not involved in decision-making under the restoration component and only acted as the main link between communities/municipalities and LRI. During the lockdowns, LiF successfully collaborated with a local NGO in Baskinta to reach and monitor planting sites on municipal land in

Sannine and Bekich. LRI had a more extensive collaboration with international agencies such as UNDP, WFP, and the Food and Agriculture Organization (FAO) which leveraged funds in several USAID activity sites (for maintenance purposes in particular, e.g., in Ain el Rihani).

As for the Anjar National Park, LiF extensively involved a local NGO in decision-making in addition to execution and operation management. According to three KIIs, this NGO will continue to be engaged beyond LiF's lifetime, as it is very active in Anjar and its members are all locals.

### EQ3 CONCLUSIONS

Stakeholder involvement in LiF's activities varied considerably according to the type of activity conducted and throughout the phases (project identification, design, implementation, and operation or management). Private sector (companies and landowners) engagement is more marked where there is a higher economic interest.

Communities are more engaged in LiF's work compared to LRI's work previously. This is mainly due to people's increased awareness of forestry issues over the past decade. This effect has also extended to neighboring communities such as Feytroun, Ballouneh, Ain el Rihani, and Rachiine. The engagement of municipalities on the other hand is highly dependent on the type of activity and the municipalities' financial ability to manage, monitor, and execute tasks under the fire prevention and land restoration components. Municipality engagement is expected to scale up previous reforestation activities into income-generating ones (such as rural tourism, Anjar Park, etc.).

Nurseries didn't play a major role under LiF, and their activities were limited to supplying seedlings for outplanting activities upon a preorder agreement, in line with the scope of involvement mentioned in the CA. The relative lack of high-quality seedlings due to some nurseries' underperformance limited the timely achievement of LiF's Sub-purpose 1.

### EQ4. How effective were the short-term seasonal jobs that LiF generated?

#### EQ4 FINDINGS

LiF helped create seasonal jobs in villages at a time when employment opportunities were scarce locally and nationwide. Under Sub-purpose 1, the project helped generate continuous job opportunities for locals in planting, weeding, etc. throughout the year. LiF also created jobs in seasons during which economic activity is low and few work opportunities are available, i.e., when rural tourism and agriculture harvesting are minimal. In addition, the project helped develop the skills of locals through capacity-building activities, making them more suited to seasonal jobs that require skill and efficiency.

According to the KIIs and the M&E data available, LiF did not discriminate based on gender and age and included women and youth in all project activities, allowing them to benefit equally (compared to adult men) from the seasonal jobs created. Some activities even targeted women specifically, such as beekeeping in Akoura and planting medicinal and aromatic plants in Makne. Women's role in the project varied between communities, and all key informants linked the level of women's engagement to the cultural aspects of the region and community where they lived.

In general, LiF was able to engage more women compared to the LRI project. Women who took part in the project's activities were able to provide income to their families in this time of crisis while staying close to their homes.

The gender analysis report developed under LiF helped integrate women in forestry activities more efficiently. However, this is reflected in terms of numbers only, not proportions, as more men were involved as well. Women's role and level of engagement are related to the social norms in their communities and to the location of restoration sites (women tend to not participate in activities taking

place in remote areas). In 2020, LiF achieved a 22% rate of women participation in forestry-related activities versus a target of 38%, as seen in Table 2 below.

**Table 2: LiF economic indicators results vs. targets for FY2019 and FY2020**

Indicator	FY2019 Results	FY2019 Targets	FY2020 Results	FY2020 Targets
Proportion of female participants in USG-assisted programs designed to increase access to productive economic resources (Female/Total participants)	45/486	24/200	127/868	39/300
Number of full-time equivalent (FTE) jobs created with USG assistance	3.77	2	10.80	4.6
Number of people with increased economic benefits derived from sustainable natural resource management and conservation as a result of USG assistance	43	24	119	39
Number of firms, farmers or other organizations who have applied improved technologies or management practices as a result of USG assistance	7	6	10	8
Percentage of women participating in forestry related activities	38.48%	36%	22.42%	38%

#### EQ4 CONCLUSIONS

The COVID-19 lockdowns and the economic crisis helped LiF get closer to achieving its intended results, as many people moved back to their villages from the city and were in need of work. This population shift increased participation in reforestation and forest management activities, which contributed to people’s livelihoods.

The difficult situation also encouraged the participation of women and youth who needed a source of income close to their homes.

LiF’s gender analysis recommendations were fully followed and have helped the implementation of project activities. They allowed the project to better integrate women in forestry-related activities and create women-only jobs in sub-sectors such as beekeeping and planting aromatic plants.

#### EQ5. Which previous recommendations were integrated in LiF’ scope? Which weren’t? And why?

#### EQ5 FINDINGS

First, it is important to indicate that the LiF project was launched in September 2018, before LRI’s final performance evaluation was conducted in November 2018.

Based on the KII responses and the desk study, the LRI project evaluation finding related to the shelving of the Shouf corridor was not taken into consideration by LiF, which went ahead and included this corridor in its scope of activities. The LRI final evaluation reported, “The approach was shelved in the Shouf Reserve, but LRI worked with the existing Shouf Biosphere Reserve’s management board to implement its activities” and “The initial development of the Shouf area as a social and environmental corridor (SEC) was shelved because the reserve’s management felt they already had community mechanisms in place and preferred

to work directly with the project, rather than have the project work directly with communities.” Still, despite the LRI project’s experience in Maaser el Shouf, LiF included this corridor and area as part of the three selected corridors.

Moreover, after examining the available documentation, the ET found that LiF did not take into consideration the LRI project final evaluation recommendations related to the rehabilitation of quarries, the sustainability of fire prevention, the inclusion of diverse species that have economic value, and the CO<sub>2</sub> sequestration tool.

The LRI project’s final evaluation report stated, *“The project design did not respond to communities’ highest-priority needs—economic growth, as indicated by municipal members and all respondents. Therefore, economic opportunity should be built into the design to ensure clear commercial returns from reforestation (e.g., registration and validity of the project in the Voluntary Carbon Standard [VCS] and Climate Community and Biodiversity Alliance [CCBA] to sell sequestered carbon on the voluntary market [currently valued at around \$7–15 per ton sequestered]). Most respondents also indicated that heating was expensive in the winter (especially for Syrian refugee communities), so it would have been prudent to include fast-growing beneficial species into the mixed planting that have commercial value in the short term (e.g., charcoal production).”*

Key informants indicated that the CO<sub>2</sub> sequestration method was included in the ongoing study on Ecosystem Services. However, the ET did not have the chance to look at it and evaluate how the study would address the implementation of this method.

Regarding the inclusion of diverse tree seedlings, including for charcoal production, while LRI didn’t incorporate this activity under LiF, it did include it under another project funded by UNDP.

With regards to fire prevention, the LRI evaluation stated, *“the project’s fire prevention component has a low likelihood of sustainability because of barriers created by Lebanon’s legal framework for forest management and the lack of funding for implementation indicated by municipal leaders.”* Under the LiF Activity, Firewise was scaled up to Firesheds. The sustainability of fire prevention is linked to the availability of resources and to the laws set by the government (legal framework). Fire prevention’s sustainability is still an issue that needs to be addressed more broadly, as it doesn’t involve the local communities alone, but also diverse stakeholders (such as the civil defense) that are not directly involved in USAID projects.

In terms of quarry rehabilitation, the LRI project’s final evaluation suggested engaging *“the government and the companies responsible for quarries in the rehabilitation efforts (companies should be held responsible for rehabilitation).”* In the KIIs, the respondents were not consistent in their answers, with some saying that LiF had started to work on this activity but later dropped it (Activity 1.8) and others that LiF had not tackled the quarry component at all since it was costly and the private sector was not interested in collaborating on this front (e.g., in Makne and Jbaa).

## EQ5 CONCLUSIONS

The baselines that were set for LiF reflect the achievements of the LRI project and have all proven successful under the project except for the one related to the Shouf corridor where several implementation challenges were encountered.

Fire prevention and management is highly dependent on the engagement of municipalities and communities as well as on the legal framework which can sometimes make it more challenging to implement such activities.

It is not clear how LiF will proceed in terms of using the CO<sub>2</sub> sequestration tool for the Mediterranean forest species assessed in a natural context or in the framework of afforestation, reforestation, and Carbon markets. The United Nations Framework Convention on Climate Change (UNFCCC) is reporting on CO<sub>2</sub> sequestration in the planted lands. The main limitations of this method are: (i) it

doesn't differentiate between species, and (ii) the growth of seedlings varies largely between sites according to climate, soil, altitude, etc.

## SECTORAL REVIEW

Answers to EQ 6 to 8 are directly derived from the roundtable event conducted with forestry sector Stakeholders. The recommendations generated from this roundtable along with those drawn from LiF's performance evaluation will help guide and improve USAID/Lebanon's future programming in this field.

### **EQ6. How would you describe and measure the progress achieved in the reforestation and forest management sector in Lebanon over the past decade?**

#### **EQ6 FINDINGS**

In 2012, the Ministry of Agriculture launched the “40 million trees” reforestation project to restore degraded lands and increase Lebanon's forest cover while meeting the ecological, social, and economic needs of sustainable forest management across regions. This initiative increased donors' interest in reforestation activities, including USAID, WFP, FAO, European Union(EU), Global Environment Facility (GEF), and Agence Française de Développement (AFD). Unfortunately, there are no comprehensive data (GIS mapping, seedling survival rate, number of planted seedlings, etc.) at the national level to measure or track to what extent and how this project is being implemented.

During the past decade, the techniques used and activities conducted in reforestation work, such as large scale planting days and the monoculture of pines and cedars, have progressed. Reforestation campaigns and interventions have moved from large scale, one-day planting activities to short-term projects, and they sometimes take up to three years to get completed, like for example the USAID-funded LiF activity and the Improving Livelihood Through Forestry project funded by German Federal Ministry for Economic Cooperation and Development (BMZ) and supported by the WFP MENA. The involvement of communities in planting days and awareness campaigns created a sense of ownership of the projects among people who now understand and demand the protection of their natural resources, be it for reforestation purposes or livelihood support.

Recently, the practice of monoculture is being gradually reduced due to an increased understanding of the importance of plant diversity and the inclusion of several species of shrubs and trees to increase the resilience and functioning of the ecosystem. Main stakeholders in the forestry value chain agree that major progress has been made in reforestation practices, especially at the level of nurseries, the methods used on the ground, and the monitoring of reforested sites. However, despite the use of new techniques, the cost of reforestation did not go down during the past years and remains a challenge for the sector in the absence of funding from international donors. Furthermore, reforestation has a narrow socio-economic impact, as it does not incorporate a productive or objective management of natural resources, with many players allocating land and water for non-productive reforestation.

In addition to the technical aspect, there is an increased awareness of the positive impact of forests on the environment and the wellbeing of people among both urban and rural communities. Forests are now seen as a favorable factor on many levels, including rural tourism, livelihoods, education, spirituality, etc.

Pilot projects funded by the private sector and involving volunteers are being implemented in Beirut and Zouk using the Miyawaki<sup>1</sup> method. Their goal is to restore municipal and private lands/gardens using a landscaping approach. The Miyawaki method ensures high survival rates and allows for the successful

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<sup>1</sup> The Miyawaki method is a unique technique to grow forests. Under this approach, dozens of native species are planted in the same area, close to each other, which ensures that the plants receive sunlight only from the top, and grow upwards than sideways. In the Miyawaki method, trees grow about 10 times faster. Once stabilized, the forest is left to flourish, forevermore, on its own without further interference. Refer to the document “MIYAWAKI METHOD OF FOREST CREATION” found on <https://www.dropbox.com/s/pgofw7noxmpfwxg/Miyawaki%20Methodology%20Explained.pdf?dl=0>

restoration of forest patches in a timely manner, as demonstrated in areas where traditional reforestation methods had failed (e.g., in Sardinia, Italy).

## EQ6 CONCLUSIONS

Forest management is a hot topic in Lebanon. However, there is a lack of reliable and consolidated data to assess, track, and measure to what extent and how it is being done.

Despite the growing surface of reforested sites, reforestation activities may not be viable economically without the inclusion of responsible tourism, agroforestry, and other related activities.

The Miyawaki method is useful in creating dense patches of vegetation quickly by using forest species to mimic natural forests.

## EQ7. To what extent do you consider USAID supportive of this sector?

### EQ7 FINDINGS

USAID has been funding a wide range of forestry projects in Lebanon since 2010 and is one of the biggest contributors to this sector with around \$25 million mobilized under the LRI and LiF projects.

USAID helped build the capacities of local communities, nursery owners, and experts; created the needed tools for assessing land degradation and fire risks; implemented pilot reforestation and agroforestry projects across the country; enriched the knowhow of stakeholders by developing initial data baselines; and provided technical support to nurseries. Under LRI, USAID also developed the National Guidelines for Nursery Management (in October 2018) and began mapping available public land plots suitable for planting and specifying the types of trees that can be planted on each site. Thanks to USAID's efforts, Lebanon's forestry sector took a major leap forward. For instance, the seedling survival rate rose from less than 10% to more than 70% due to the improvement of the seedling quality and the adoption of technical guidelines achieved under the LRI project. USAID has also contributed to raising community awareness of fire prevention and forest management. Many donors are building on USAID's implemented projects and focusing on scale-up work.

### EQ7 CONCLUSIONS

All roundtable participants agreed that USAID was a major player in the forestry sector. Recently, USAID has been shifting its focus from replanting activities to raising community awareness of economic opportunities in forestry. Other donors are building on USAID's work in this field and making use of the technical knowledge that USAID has created.

## EQ8. How would you anticipate this sector will evolve in the short and long term? Would you recommend any specific policy changes that could facilitate the improvement of this sector?

### EQ8 FINDINGS

The roundtable participants said it was hard to anticipate how the forestry sector would evolve in the long term. Nevertheless, they believe that communities' awareness of the importance of this sector has increased thanks to the many campaigns conducted. Communities' appropriation of projects implemented in their towns has increased and is expected to remain so as long as the current economic and financial crises do not compromise the efforts made to inform them about the importance of forest protection and management. The number of people expressing an interest in being actively involved in environmental activities such as reforestation, land restoration, and fire prevention has been increasing as well.

On the other hand, donors are becoming more interested in agroforestry than in reforestation, which is a promising shift given the current situation and the need to invest in food security.

However, the growing number of interventions in the environment sector in the past few years, especially in terms of rural tourism, has led to the mismanagement of forests, a disastrous exploitation of resources, and an increased risk of grazing and wildfires. In fact, reforestation activities implemented recently mainly focused on boosting rural tourism, which might affect the natural regeneration of forests in the near future. This phenomenon has already started to damage ecosystems (e.g., in Fneidek and Baskinta).

From a legal perspective, actors in the forest management and land restoration sectors have adapted their activities to the current law. However, more enforcement is needed to guarantee results (e.g., issuing fines). Specific policies need to be put in place to support the regulation of the ecotourism and rural tourism sectors to prevent the chaotic expansion of touristic facilities in remote areas and the over-exploitation of touristic sites.

Roundtable participants also agreed that future projects should focus on bringing nature and its benefits into cities by investing more in urban forestry. This includes using native trees in landscaping and architecture. Municipalities and the private sector should both be encouraged to participate in these activities.

## EQ8 CONCLUSIONS

Given the current situation in the country, most donors are redirecting their focus towards food security and livelihoods activities. Environmental activities, including forestry, should follow the same path. Agroforestry in particular is a natural evolution from the conventional reforestation activities that have been implemented so far.

Regulating rural tourism activities will help prevent damage to the ecosystems from which these activities benefit.

Finally, urban forestry projects benefit many people at once due to the high population density in cities, especially since there is already a huge demand for parks and recreational areas there.

## RECOMMENDATIONS

### EQ9. What are the recommendations for USAID and for LiF that need to be taken into consideration for future interventions or during the remaining project timeframe?

The findings of EQs 1 to 9 allowed the ET to come up with the following recommendations for USAID and LiF. These are divided into nine categories.

#### **Land Restoration (LiF)**

Should reforestation activities continue during an extended implementation period, LiF should increase biodiversity and boost natural regeneration further. Reforestation and land restoration practices are now starting to produce results. Most interventions plant one main species such as *Pinus pinea* or *Cedrus libani* (70%) and include other species alongside it (30%). The reintroduction of key species (nursing species in reforestation and companion crop in agroforestry) is fundamental to increase biodiversity and enhance the natural vegetation under environmental constraints (climate, soil, etc.) without further human intervention. (EQ1-EQ9)

The adapted Miyawaki tool could provide a fast and new innovative method for the forestry sector in Lebanon to restore degraded lands in urban and rural areas and recreate an entire ecosystem, from shrubs to canopy trees. LiF should also encourage small landowners, municipalities, and agriculture players to plant trees native to their regions. (EQ3-EQ8-EQ9)

In addition to the above, LiF should promote the use of fast-growing species with high economic value for the benefit of the local communities in agroforestry and reforestation, i.e., the Charcoal method. (EQ3-EQ8-EQ9)

#### **Nurseries (LiF and USAID)**

Within the project's remaining timeframe and should outplanting activities continue, LiF should change nurseries' business engagement in the project and consider payment associated with deliverables. The deliverables can be set by the implementing partner according to technical specifications, such as the purchase of seeds, the preparation of soil and planters, and the delivery of seedlings. Such arrangement would secure a much-needed financing to the seedlings' production. (EQ2-EQ3-EQ8)

As for future activities, USAID could consider assisting nurseries by developing a new marketing strategy for native species. For instance, help create a new market for native species by promoting the substitution of imported non-native landscaping plants and trees with native ones that have high potential in landscaping. (EQ3-EQ8)

#### **Private Sector (LiF and USAID)**

LiF and USAID could encourage companies/diaspora to direct their CSR efforts towards livelihood assistance besides restoration activities. In other terms, they should encourage the private sector/diaspora to adapt their CSR approach to respond to emerging priorities, such as food security, fire prevention, and/or agroforestry instead of focusing on reforestation and planting activities only. (EQ1-EQ3-EQ9)

#### **Agroforestry (LiF and USAID)**

LiF should consider adopting the dense seeding technique in new agroforestry sites using native species and fast-growing plants. This should be included in the design and implementation phases. For a wider protection area and an increased wind reduction, a density of 60% is recommended. (EQ1-EQ3-EQ9)

Furthermore, LiF should avoid investing in auxiliary equipment and infrastructure such as installing kiosks and providing dairy machinery at late stage of implementation, as their impact and generated income won't be captured within the project's timeframe. (EQ1)

For future agroforestry activities, USAID should encourage implementing agroforestry practices in lands and orchards that have already been planted as opposed to unplanted lands. This would help capture the real impact of the agroforestry component faster and implement it at a lower cost. In addition, it will demonstrate to local farmers the benefits of agroforestry systems and encourage them to replicate the models. LiF could refer to the International Center for Research on Agroforestry (ICRAF) for more information in this regard and develop the agroforestry sites business model. (EQ1-EQ8)

In addition, USAID should consider promoting agroforestry within its agriculture activities and projects. (EQ8-EQ9)

### ***Fire prevention (LiF and USAID)***

If the implementation period is prolonged (at least till January 2022), LiF should mobilize budget and resources to prioritize the completion of the remaining Fireshed sites. LiF should expand the Firewise tasks to also provide tools, devices, and small equipment to municipalities to ensure the sustainability of fire prevention and management if there is enough budget to be reallocated. (EQ1-EQ3-EQ5-EQ9)

### ***Forest Management (USAID)***

USAID should consider a shift towards supporting the sustainable management of forests and raising public awareness of regulations and good practices, including making sure that people understand that forests are a shared resource and should not be overexploited. This will benefit the long-term protection of forests and reforested sites while maintaining seasonal jobs to secure the livelihoods of local communities. USAID should also encourage engaging municipalities and agriculture players in promoting the use of native trees and raising public awareness of their importance on many levels (economic, forest management, etc.). (EQ8)

In addition, USAID should promote balance between community development and forest preservation. Community engagement's purpose isn't only to secure livelihoods but also to develop people's skills and knowledge in the sustainable management and conservation of resources. USAID should also support forest management activities in a way that ensures the sustainability of forest resources and their sound management by local communities to prevent the latter from overexploiting or depleting them due to poverty. (EQ8)

(EQ8-EQ9)

Furthermore, USAID, through its Local Development portfolio, might consider implementing a financing scheme for municipalities to support local ecosystems and the communities that protect forests. For instance, there's a USAID-funded project that supports local NGOs to maintain (prune, clean, etc.) forests. Another way could be by supporting municipalities to partner with a private company specialized in maintaining forests and ecosystems. A public-private partnership (PPP) could be developed and supported by a USAID-funded activity. For instance, every year, the municipality of Bkessin invites companies to bid and exploit its pine forest. Such model could be replicated in other municipalities with different purposes, such as pruning and using the resulting wood to make charcoal.

LiF is currently conducting an Ecosystem Valuation study that assesses all the ecosystem services from which a community can benefit and has identified these as potential income generating activities from forests. USAID should strengthen the relationship between people's livelihoods and the various ecosystem services (provisioning, regulating, supporting, and cultural services) in the short and long term. Rural communities that rely on non-wood forest products such as honey, pine nuts, and wild

zaatar picking to improve their livelihood by providing food, additional income, and employment opportunities could benefit from additional USAID support in these areas. Climate change should also be taken into consideration in all practices and planning and production phases, for example in terms of species diversification, species selection, afforestation method, etc. (EQ8-EQ9)

As for sector stakeholders, they should encourage small landowners to use native trees in their landscaping, as these improve the soil and attract beneficial insects, which in turn restores biodiversity. They should also help forestry activities become more appealing to international funds and incorporate them in new “trending” activities if need be. (EQ8-EQ9)

The forestry sector should conduct and disseminate studies on urban forestry as well, such as biodiversity studies on ecosystems, habitat regeneration, etc. The urban forestry sector should be considered beyond rural reforestation and corridor rehabilitation. (EQ8-EQ9)

### ***Local Development and Governance (USAID)***

Sector stakeholders, including USAID, should promote more collaboration between key stakeholders to avoid the duplication of efforts and activities and help these stakeholders to build on previous projects using the developed tools and studies to achieve a holistic approach in environmental conservation and land restoration. They should also coordinate and collaborate with the Ministry of Agriculture’s regional offices to reach out to actors in remote areas and monitor forest lands and restored lands. (EQ8)

Additionally, key stakeholders should advocate for integrating forestry into policies and laws as a major contributor to the economy and expand the list of species to be protected and conserved. (EQ8)

Furthermore, USAID should help organize rural tourism activities and mitigate this sector’s adverse effect on reforested areas. (EQ8)

### ***Economic Growth (USAID)***

LiF and USAID should consider supporting municipalities or local cooperatives to process agricultural residues (such as residues and by-products of the olive-oil production chain) and wood resulting from tree pruning to generate secondary products that can be used by the community, such as wood logs for heating purposes. This type of assistance would be very useful in light of the recurrent fuel crises (availability and/or price hikes) and could prevent illegal logging. USAID should consider implementing similar cash for work and livelihood activities during the current economic crisis, these should be focused on maintenance and sustainable forest management. (EQ8-EQ9)

Key stakeholders should conduct a value chain assessment to cover all services provided by forest ecosystems (provisioning, regulating, supporting, and cultural services) and integrate its recommendations in USAID’s Economic Growth and Local Development Offices’ portfolios. (EQ8)

### ***Visibility (LiF)***

LiF should prioritize the dissemination and release of the studies it conducts and should carefully schedule these studies to serve their objective within the project’s life. In doing so, not only LiF will benefit from these studies but also donors and governmental institutions, especially if the studies help advance their strategies (i.e., ecosystem services). (EQ2-EQ9)

LiF should also enhance the visibility of USAID branding and signage in all activity sites, such as agroforestry sites, fire prevention sites, and reforestation sites. (EQ1-EQ9)

## **ANNEXES**

### **ANNEX A: EVALUATION STATEMENT OF WORK**

(ATTACHED)

## ANNEX B: DETAILED EVALUATION METHODS

The ET used a combination of in-person (site visits, KIIs) and remote primary data collection (KIIs, sector roundtable), while adhering to all national health guidelines to ensure the safety of all participants and team members in light of COVID-19. Informed consent was obtained from every participant, and the interviews were conducted using KII guides developed for each participant category. These instruments were reviewed and approved by Social Impact's Institutional Review Board (IRB).

**Document Review.** In total, the ET reviewed 47 documents consisting of LiF's CA and its modifications, activity work plan, progress reports, technical reports, and website. Technical reports consulted included agroforestry designs, fire risks assessment reports, post-fire assessment reports, and gender analysis reports. The information collected through this desk review served to design the data collection tools and site observation guidelines and allowed the triangulation of findings.

**Secondary Monitoring Data.** The ET reviewed and analyzed secondary monitoring data from LiF, examining trends and whether the activity implementation and outcomes had met the established targets.

**Site Visits.** The ET conducted visits to 11 sites that were selected by category and geographic spread: three agroforestry sites, one Fireshed site (two municipalities), three reforestation sites (including one municipality), one nursery, and Anjar Park and municipality. The sites were selected to cover all components and allow the team to observe implementation on the ground.

**Key Informant Interviews.** In total, the ET conducted 25 remote and in-person KIIs with 30 people from different entities. The team designed an interview matrix, met remotely with the activity staff and conducted the interviews to obtain more detailed, in-depth understanding about specific issues. The remote KIIs provided detailed and in-depth understanding of the key issues associated with the activity. The discussions focused on how questions of relevance, effectiveness, activity management, partnership and sustainability were addressed. Interviews were also carried out with other key stakeholders using a structured interview guide. A list of key informants was developed and agreed upon by partners and it included nurseries representatives, municipalities, private sector representatives, local beneficiaries, agroforestry land owners, local NGOs.

Below is a list of the KIIs conducted:

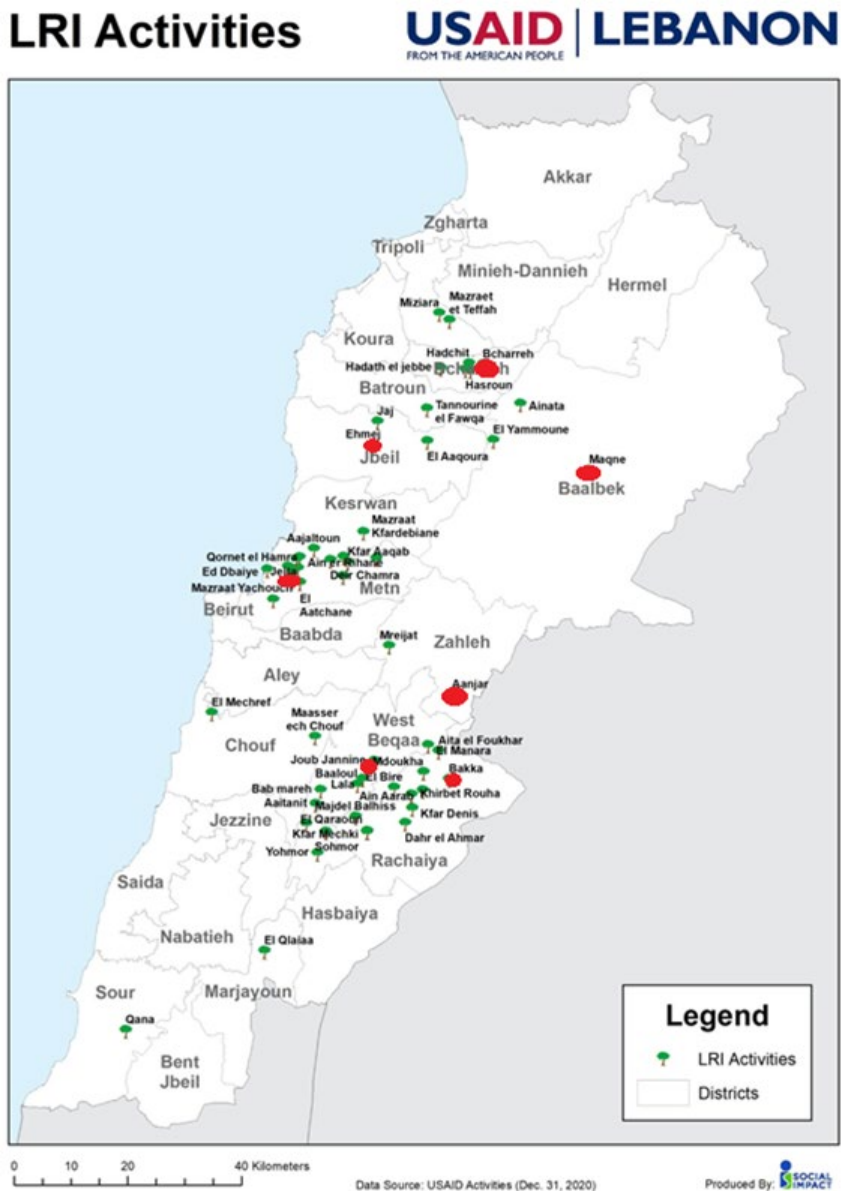
Stakeholder	# KII (# individuals)
USAID	1 (1)
LRI	10 (10)
Nurseries	3 (8)
Municipalities	3 (3)
Agroforestry sites	3 (3)
Community members	3 (3)
Private sector	1 (1)
NGO	1 (1)
Total	25 (30)

**Sector Roundtable.** The ET organized a virtual roundtable event with 16 forestry sector stakeholders to collect their perceptions and feedback regarding the evolution of Lebanon's forestry sector in the past decade and USAID's level of involvement in it. The team also asked these experts' opinion on the future of this sector. Participants included representatives of ministries, academia, NGOs, donors, and international agencies. They were selected in consultation with USAID and LRI. The data collected

through the desk review and KIIs were used as the basis for analysis. Data analysis techniques included reviewing existing documentation; conceptualizing and categorizing information obtained from the KIIs; examining the relationships between the different activity components, activities, and achievements as revealed by the stakeholders; and authenticating conclusions by triangulating the data obtained from different sources.

### SAMPLING STRATEGY

The evaluation team conducted 25 interviews with 30 participants (Annex D) and organized a round table with 16 key stakeholders in the forestry sector (Annex E). Locations of the site visits are pointed out in red in the following map.



## **ETHICAL CONSIDERATIONS**

Evaluators informed key informants that their comments will remain anonymous and that any attribution will be indirect. The ET administered informed consent scripts and asked for respondents' verbal consent to ensure that respondents understood the purpose and voluntary nature of the KII. All participants were informed about the potential risks and notified that they could withdraw from the evaluation at any time without penalty. KII participants were informed that there are no right or wrong answers, and there were no negative consequences for sharing candid information about how LRI/LiF was designed or implemented. The ET addressed questions from the respondents and was prepared to stop FGDs and KIIs should the participant request to do so.

The safety and confidentiality of respondents is of utmost priority for SI. The ET produced reports that aggregate data and omit personal identifiers. No individual data will be shared outside the ET.

## **DATA ANALYSIS**

The data gathered from the KIIs were used as the basis for data analysis. Techniques in data analysis included review of existing documentation obtained, conceptualizing, and categorizing of information obtained in the KII, examining relationships between the different activity components, activities and achievements as revealed by stakeholders, and authenticating conclusions by triangulation of data obtained from different sources. The evaluation team prepared a data source matrix (also called an evaluation matrix) that clarified how the data were collected. It included the evaluation questions, the evaluation tool(s), data source(s) and analysis plan for each question. This matrix ensured that multiple data sources were considered and that the team was able to triangulate data to answer each question. All the data collected from different sources was reviewed for reliability and validity and findings were compared using multiple methods, data forms and data sources. Data were organized to answer evaluation questions in the final report. Differentiation between the findings, interpretations, judgments, recommendations, and the specific sources of evidence supporting these, were made clear in the final evaluation report. The final matrix is provided on the next page.

Area of Evaluation	Evaluation Questions	Data sources	Data collection methods, sample and tools	Data analysis plan
Effectiveness	<ol style="list-style-type: none"> <li>1. To what extent has the LiF Activity achieved its intended purpose and outcomes?</li> <li>2. What are the main factors that influenced positively or negatively LiF's ability to achieve these outcomes? External factors that should be given attention are: COVID-19, the economic downturn, the currency devaluation, changes in banking operations, the loss of trust in banks, and the Beirut port blast on August 4, 2020.</li> <li>3. What engagement approaches are perceived to be the most effective and sustainable in contributing to LiF's results in terms of municipality, community, private sector, and NGO (native tree nurseries and others) engagement, and why?</li> <li>4. How effective were the short-term seasonal jobs that LiF generated?</li> <li>5. Which recommendations were integrated in LiF' scope? Which weren't? And why?</li> </ol>	<ul style="list-style-type: none"> <li>• Key personnel at USAID;</li> <li>• LRI/LiF Staff and technical experts.</li> <li>• Native tree nurseries owners and association.</li> <li>• USAID Stakeholders</li> <li>• Activity Documents and M&amp;E Plan.</li> <li>• Community members of municipalities where activities are implemented</li> </ul>	<ul style="list-style-type: none"> <li>• Key Informant Interviews (KIIs) with staff, technical experts and USAID stakeholders</li> <li>• KIIs with community members and stakeholders based on an interview guide or questionnaire.</li> <li>• Desk review of activity documents collected from the IP.</li> <li>• Questionnaire or interview guide</li> <li>• Direct observation guide/Checklist for field visits</li> </ul>	<p>Qualitative data analysis of the KII and group interviews and Quantitative analysis of activity's reported data/indicators and comparison with the results from the field visits</p> <p>Qualitative analysis and narrative report of the results.</p>
Sectoral Review	<ol style="list-style-type: none"> <li>6. How would you describe and measure the progress achieved in the reforestation and forest management sector in Lebanon over the past decade?</li> </ol>	Participant groups	Learning event and roundtable	Qualitative analysis. Roundtable notes and takeaways.

	<p>7. Did USAID help the forestry sector progress?</p> <p>8. How could this sector evolve on the short and longer term? Are there policy changes that could help the sector?</p>			
Recommendations	<p>9. What are the recommendations that USAID/LiF need to take into consideration over the project's remaining duration?</p>	<ul style="list-style-type: none"> <li>• Reforestation and Livelihood activities stakeholders working in Lebanon</li> <li>• LRI/LiF Staff and technical experts</li> <li>• Key stakeholders at USAID;</li> <li>• Activity Documents.</li> <li>• Community members of municipalities where activities are implemented</li> <li>• Activity documents.</li> <li>• USAID Stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Round table and learning event.</li> <li>• KIIs with stakeholders</li> </ul>	Qualitative analysis

## **LIMITATIONS AND BIASES**

The limited time available for primary data collection affected the number of data collection events that could be conducted (especially visits to remote sites) and the team's ability to address all nine EQs and several activity components. The team used a purposive sampling approach to visited sites, selecting visits that represented different types of activities and activity components and included multiple areas and communities.

The limited time also affected the selection of methods, such as the roundtable that served to collect perceptions and feedback from many participants simultaneously. Group-based data collection methods can be subject to biases, such as group think and social desirability bias. To address this, the team triangulated findings across data sources as much as possible.

The evaluation relied heavily on documents, secondary monitoring data, and interviews, complying with USAID's Automated Directives System (ADS) 201.3.5 and 201.3.6.8, which require that evaluation teams use relevant monitoring data and feedback from beneficiaries already collected by implementing partners as data sources. In addition, since interviews rely on self-reported data, they may be subject to various biases, as key informants may be motivated to provide responses that would be considered socially desirable or influential in obtaining donor support. The evaluation team mitigated this risk by asking follow-up questions about specific activities and specific examples.

Since USAID is one of many donors funding LRI interventions in the same areas, achievements observed cannot be attributed to USAID/LiF alone. To the extent possible, the team attempted to examine and evaluate LiF's accomplishments separately.

## **DISSEMINATION AND UTILIZATION**

After the conclusion of the field work, the Evaluation Team presented initial findings and conclusions during a remote out-brief with USAID/Lebanon on May 17, 2021.

SI will submit this draft evaluation report to USAID/Lebanon for review. USAID will provide comments on the draft report. The Evaluation Team will revise the draft report to address USAID comments and suggestions, and the final evaluation report will be submitted within one week of receiving feedback from USAID on the draft report. The report will follow USAID branding requirements.

The final evaluation report will be disseminated within USAID/Lebanon. Upon instruction from USAID, SI will submit the final evaluation report (excluding any potentially procurement-sensitive information) to the Development Experience Clearinghouse (DEC) for dissemination among implementing partners, stakeholders, and the general public. The DEC submission must be within three months of USAID's approval of the final report. Any personally identifying information of evaluation respondents will be appropriately de-identified from data and from the evaluation report per SI guidelines prior to submission to the DEC to ensure respondent confidentiality.

## ANNEX C: DATA COLLECTION TOOLS

### I. USAID and LIF staff

<b>Name of Facilitator</b>	
<b>Name of Note Taker</b>	
<b>Name of the KII</b>	
<b>Location of the KII</b>	
<b>Date of the KII</b>	
<b>Attached List of Participants + Contact + Gender</b>	

### 2. AGROFORESTRY KII GUIDE

<b>Name of Facilitator</b>	
<b>Name of Note Taker</b>	
<b>Name of the KII</b>	
<b>Location of the KII</b>	
<b>Date of the KII</b>	
<b>Attached List of Participants + Contact + Gender</b>	

After introducing the team and the purpose of the KII as part of the LRI/LiF mid-term evaluation the following questions will be asked:

<b>A: Effectiveness</b>		
<b>EI.3</b>	How and to what extent did the LRI/LiF project responded to your agroforestry need and management?	
<b>EI.1</b>	In your opinion, what are the major outcomes and achievements resulting from LIF support? (probe into economic, livelihood and environmental)	
<b>EI.2</b>	What are the positive factors that influenced the implementation of your intervention with LRI/LiF?	

<b>EI.2</b>	What are the negative factors that influenced the implementation of your intervention with LRI/LiF?				
<b>EI.3</b>	Has the project been effective in its engagement with your land management? If so, how?				
<b>EI.3</b>	According to you did you acquire the adequate skills to duplicate the model applied? If yes ? are you willing to do it?				
<b>EI.4</b>	Did you agroforestry project result in seasonal job created? Long term? For women and youth?  How do you foresee these would be sustained?				
<b>EI.4</b>	The local community was involved? If yes, how?				
<b>R and EI.3</b>	Are there prospects of sustainability for continued cooperation between your company and LRI NGO?	Yes,	No		
<b>EI.3</b>	If Yes, what are these and how can you work on building on them or strengthening them?				
<b>EI.3</b>	To which extent will you be able to maintain Agro-forestry practices beyond LIF intervention? And how?				
<b>EI.3</b>	According to you what is the most important component of applying agroforestry system? From 0 to 4 (0 is the least)				
	Maintaining biodiversity and conservation				
	Increasing social inclusion				
	Diversifying economic activity Creation of job				
<b>Recommendations</b>					

<b>RI</b>	What in your opinion were critical challenges and lessons learned from the project?	
<b>RI</b>	Are there any areas of the project that you feel could have been done in a better way?	

### 3. MUNICIPALITY MEMBER KII GUIDE

<b>Name of Facilitator</b>	
<b>Name of Note Taker</b>	
<b>Name of the KII</b>	
<b>Location of the KII</b>	
<b>Date of the KII</b>	
<b>Attached List of Participants + Contact + Gender</b>	

After introducing the team and the purpose of the KII as part of the LRI/LiF mid-term evaluation the following questions will be asked:

<b>A: Effectiveness</b>		
<b>EI.</b>	In your opinion, what are LIF's headline outcomes and achievements in terms of municipality project activities?	
<b>EI.1</b>	Has the project been effective in expanding and protecting the area of planted trees and other environmental actions e.g firewise and/or restoration in your municipality?	
<b>E I.2 (only for Anjar municipality)</b>	Has the project been effective in building the capacity of local community and youth on the management of Anjar forestry park	
<b>EI.3</b>	Has the project been effective in introducing agroforestry in local communities? To what extent they were involved in the selection of sites?	

<b>EI.4</b>	How the short-term jobs were effective from point of view technical, economic and social?		
<b>RI</b>	Are there prospects of sustainability for the work you have done under the municipality after the project ends?	Yes,	No
<b>RI.2</b>	If Yes, what are these and how can you work on building on them or strengthening them?		
<b>E. I.3</b>	Were women and youth encouraged to take on leadership roles in local forest area management? Were the activities carried, part of technical training or extended to different activities? (Can you give some examples)		
<b>E. I.4</b>	Were women and youth included in paid roles in the project activities?		
<b>D: Recommendations</b>			
<b>RI</b>	What in your opinion were critical challenges and lessons learned from the project?		
<b>RI</b>	Are there any areas of the project that you feel could have been done in a better way?		

#### 4. COMMUNITY MEMBERS (WORKERS, FOREST GUARDS ETC.) KII GUIDE

<b>Name of Facilitator</b>	
<b>Name of Note Taker</b>	
<b>Name of the KII</b>	
<b>Location of the KII</b>	
<b>Date of the KII</b>	

**Attached List of Participants + Contact + Gender**

After introducing the team and the purpose of the KII as part of the LRI/LiF mid-term evaluation the following questions will be asked:

<b>A: Effectiveness</b>			
<b>EI.</b>	In your opinion, what are LRI/LiF's headline outcomes and achievements in terms of protecting forests and planted sites?		
<b>EI.1</b>	To what extent did the project achieve its purpose and stated outcome to protect forests and planted sites?		
<b>EI.2</b>	Has your involvement been effective in protecting forests and planted sites?		
<b>EI.4</b>	Is your job or involvement maintained after the project ends?	Yes,	No
<b>EI.4</b>	If Yes, would you think that LRI could do something to enhance your skills or your work ?  If no, Why?		
<b>EI.3</b>	What is the prospect of sustainability for forest and planted site protection and expansion?		
<b>EI.4</b>	How do you understand the role of women in forest protection and expansion?		
<b>EI.4</b>	What were the difficulties of including women, if any? How were these solved?		

<b>EI.4.</b>	Were women encouraged to take on leadership roles in forest protection activities?  (Can you give some examples)	
<b>EI.4</b>	Were women and youth included in paid roles in the project activities?	
<b>Recommendations</b>		
<b>RI</b>	What in your opinion were critical challenges and lessons learned from the project?	
<b>RI</b>	Are there any areas of the project that you feel could have been done in a better way?	

## 5. PRIVATE SECTOR KII GUIDE

<b>Name of Facilitator</b>	
<b>Name of Note Taker</b>	
<b>Name of the KII</b>	
<b>Location of the KII</b>	
<b>Date of the KII</b>	
<b>Attached List of Participants + Contact + Gender</b>	

After introducing the team and the purpose of the KII as part of the LRI/LiF mid-term evaluation the following questions will be asked:

<b>A: Effectiveness</b>		
<b>I.</b>	How and to what extent did the LRI/LiF project compliment or helped you in implementing your CSR strategy?	
<b>EI.3</b>	In your opinion, what are LRI's headline outcomes and achievements in terms of complimenting/implementing your CSR strategy?	

<b>EI.1</b>	To what extent did the project achieve its purpose and stated outcome to compliment your CSR strategy?		
<b>EI.2</b>	What are the positive factors that influenced your cooperation with LRI/LiF?		
<b>EI.2</b>	What are the negative factors that influenced your cooperation with LRI/LiF?		
<b>EI.2.</b>	Has the project been effective in its engagement with your company? If so, how?		
<b>RI</b>	Are there prospects of sustainability for continued cooperation between your company and LRI NGO?	Yes,	No
<b>EI.4</b>	If Yes, what are these and how can you work on building on them or strengthening them?		
<b>EI.4</b>	How did you encourage women and youth to be more involved?		
<b>EI.4</b>	Did you have short-term jobs impacted? If yes to what extent?		
<b>D: Recommendations</b>			
<b>RI</b>	What in your opinion were critical challenges and lessons learned from the project?		
<b>RI</b>	Are there any areas of the project that you feel could have been done in a better way?		

## 6. NURSERY KII GUIDE

<b>Name of Facilitator</b>	
<b>Name of Note Taker</b>	
<b>Name of the KII</b>	
<b>Location of the KII</b>	
<b>Date of the KII</b>	
<b>Attached List of Participants + Contact + Gender</b>	

After introducing the team and the purpose of the KII as part of the LRI/LiF mid-term evaluation the following questions will be asked:

<b>Effectiveness</b>		
<b>Intro</b>	What were the main activities that the nursery participated in and what was your level of involvement?	
<b>E I.3</b>	How did you engage with LIF at first? Did your engagement went beyond what was initially anticipated? How would you anticipate maintaining this engagement with LRI?	
<b>E I.4</b>	Has the nursery involvement been effective in producing high quality seedlings and finding markets for native species? How sales progressed from year to year? Who are the main buyers?	
<b>E I.4</b>	Was your nursery able to generate jobs? If yes, how many men vs women/ age? Which nationality? Are you able to maintain these jobs? How?	
<b>E I.4</b>	Were their difficulties of including women, if any? How were these solved?	
<b>R I</b>	Are there prospects of sustainability for your nursery after the project ends?	
<b>E.1.2</b>	If Yes, what are these and how can you work on building on them or strengthening them?	
<b>E I.4</b>	What is the prospect of sustainability in the native tree market? Did you reach new clientele? Did you expand your market?	

<b>E I.3</b>	What is the prospect of maintaining the quality of seedling production after the project ends?	
<b>Recommendations</b>		
<b>RI</b>	What in your opinion were critical challenges and lessons learned from the project?	
<b>R I</b>	Are there any areas of the project that you feel could have been done in a better way?	

## 7. NGO KII GUIDE

<b>Name of Facilitator</b>	
<b>Name of Note Taker</b>	
<b>Name of the KII</b>	
<b>Location of the KII</b>	
<b>Date of the KII</b>	
<b>Attached List of Participants + Contact + Gender</b>	

After introducing the team and the purpose of the KII as part of the LRI/LiF mid-term evaluation the following questions will be asked:

<b>A: Effectiveness</b>		
<b>EI.3</b>	How and to what extent did the LIF project compliment your programs and activities in terms of reforestation, environmental degradation and GHG emission reduction?	
<b>E.I.I</b>	In your opinion, what are LRI/LiF's headline outcomes and achievements in terms of reforestation, ecological restoration and Firewise and agroforestry?	

<b>EI.2</b>	What are the positive factors that influenced your cooperation with LRI/LIF?		
<b>EI.2</b>	What are the negative factors that influenced your cooperation with LRI/LIF?		
<b>E I.3</b>	Has the project been effective in reforestation activities and fire mitigation, restauration?		
<b>RI</b>	Are there prospects of sustainability for continued cooperation between your institution and LRI NGO?	Yes,	No
<b>RI.2</b>	If Yes, what are these and how can you work on building on them or strengthening them?		
<b>EI.4</b>	How do you understand the role of women in the reforestation, forest management, restoration of degraded land?		
<b>EI.4</b>	How did you integrate youth in your work? Were they effective? To what extent?		
<b>Recommendations</b>			
<b>RI</b>	What in your opinion were critical challenges and lessons learned from the project?		
<b>RI</b>	Are there any areas of the project that you feel could have been done in a better way?		

## ANNEX D: LIST OF KEY INFORMANTS

Entity	Focal point	Date
USAID	Elias Al Haddad	Tuesday April 20, 2021
LRI	Maya Nehme	Tuesday April 20, 2021
LRI	Eliane Charbel	Tuesday April 20, 2021
LRI	Mireille Jazi	Tuesday April 20, 2021
LRI	Sophie Mansour Sylvana Raydan	Wednesday April 21, 2021
LRI	Joseph Bechara	Wednesday April 21, 2021
LRI	Bouchra Doueihy	Thursday April 22, 2021
Cooperative of native trees Nurseries	[redacted]	Thursday April 22, 2021
[redacted]	[redacted]	Friday April 23, 2021
LRI	Majed Khashan	Friday April 23, 2021
LRI	Abdo Nassar	Monday April 26, 2021
LRI	Joelle Salameh	Tuesday April 27, 2021
[redacted]	[redacted]	Friday April 23, 2021
Anjar Municipality	[redacted]	Friday April 23, 2021
Anjar Community member	[redacted]	Friday April 23, 2021
Ehmej municipality	[redacted]	Monday April 26, 2021
Bcharreh Native trees nursery	[redacted] [redacted] [redacted] [redacted] [redacted]	Monday April 26, 2021
Jeita municipality	[redacted]	Tuesday April 27, 2021
Ain el Rihani Community member	[redacted]	Tuesday April 27, 2021
Maqne Agroforestry site	[redacted]	Friday April 23, 2021
Maqne - Woman Entrepreneur	[redacted]	Friday April 23, 2021
Bakka Agroforestry site	[redacted]	Wednesday April 27, 2021
Mdoukha Agroforestry site	[redacted]	Wednesday April 27, 2021

AFDC nursery	[redacted]	Wednesday 23, 2021
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## ANNEX E: LIST OF SECTOR ROUNDTABLE PARTICIPANTS

Name	Organization
1. Maya Nehme	LRI
2. Mireille Jazi	LRI
3. Eliane Charbel	LRI
4. Elias Al Haddad	USAID
5. [redacted]	Ministry of Environment
6. [redacted]	Ministry of Agriculture
7. [redacted]	WFP
8. [redacted]	TheOtherDada
9. [redacted]	CNTPL
10. [redacted]	Saint Joseph University
11. [redacted]	Oaks and Cedars
12. [redacted]	Oaks and Cedars
13. [redacted]	UNDP
14. [redacted]	UN-FAO (SALMA Project)
15. Juliette Amidi	Social Impact
16. Sandra Fahd	Social Impact
17. Joanna Khater	Social Impact
18. Harvey Herr	Social Impact
19. Carine Khoury	Social Impact
20. Samar Safar	Social Impact

## ANNEX F: LIST OF DOCUMENTS REVIEWED AND SECONDARY DATA SOURCES

Type of Document	Title
Contract & Modifications	20190710 MOD P001 to 72026818CA00003 signed
Contract & Modifications	20191218 LRI LiF Mod P002 (EFT) Rev
Contract & Modifications	Cooperative Agreement #72026818CA00003 (CV for LIF)
Work Plans & PMP	LIF Work Plan (Sept. 24, 2018 – Sept. 30, 2019)
Work Plans & PMP	LIF Work Plan (Oct.1. 2019 – Sept. 30, 2020)
Work Plans & PMP	LIF Work Plan (Oct. 1, 2020 – Sept. 30, 2021)
Work Plans & PMP	LIF MEL Plan Jun. 2019
Progress Reports	LIF Quarterly Report (Oct. – Dec. 2018)\
Progress Reports	LIF Quarterly Report (Jan. – March. 2019)
Progress Reports	LIF Quarterly Report (Apr. – Jun. 2019)
Progress Reports	LIF Quarterly Report (Oct. – Dec. 2019)
Progress Reports	LIF Quarterly Report (Jan. – March 2020)
Progress Reports	LIF Quarterly Report (Apr. – Jun. 2020)
Progress Reports	LIF Annual Report (Sept. 2018 – Sept. 2019)
Progress Reports	LIF Annual Report (Oct. 2019 – Oct. 2020) with annexes
LRI I and II Evaluation Reports	Lebanon Reforestation Initiative II Final Performance Evaluation report
LRI I and II Evaluation Reports	Lebanon Reforestation Initiative I Final Performance Evaluation report
Other documents/studies	Fire Risk Assessment at the Fireshed Level
Other documents/studies	Firewise Towns Assembled Reports (Arabic and English)
Other documents/studies	Gender Analysis Report 2019
Other documents/studies	Post-fire assessment report
Other documents/studies	Agroforestry Practices in Preselected Sites
Other documents/studies	Agroforestry systems, practices & designs for the retained sites
Other documents/studies	Akoura Agroforestry site design descriptive sheet
Other documents/studies	Maqne Agroforestry site design descriptive sheet
Other documents/studies	Bakka Agroforestry site design descriptive sheet
Other documents/studies	Mdoukha Agroforestry site design descriptive sheet

## **ANNEX G: EVALUATION TEAM**

1) **Evaluation Team Leader:** Sandra Fahd, PhD. holds a Master's degree in International Business and Economic Corporation and a PhD in Environment, Resources and Sustainable Development. She has more than 15 years of experience in international and local organizations. She works as an independent consultant on project management and evaluation in the fields of rural and agricultural development, environmental and resources management. Since 2011, she is an Associate Professor at the Lebanese University and teaches Management of protected areas, application of agroforestry systems, forest harvesting, and development of forestry industry and products. She has experience in community engagement, in natural resource management and knowledge of social forestry concepts and programs in developing countries. She has good knowledge of USAID regulations related to evaluation of projects and project design and implementation. She is EQUI certified. As a team leader, she is responsible for coordinating and directing the overall evaluation, including preparation and submission of the draft evaluation report.

2) **Evaluation Team Member /Lebanon Reforestation Local Expert** Ms. Juliette Amidi has 7 years of experience in the field of livelihoods in forestry, agroforestry, reforestation, land management, natural resource management and other similar activities. She holds a MS. degree in Biodiversity: management and conservation of natural resources. She has good understanding of the concepts related to nature conservation, reforestation, forest management, ecotourism and sustainable and community development initiatives. She also has experience in livelihood projects. She has the capacity to undertake programs needs analysis. She has knowledge of USAID and other international donors that provide support to the reforestation sector. She will be working closely with the Team Leader on the evaluation. The team member has a good understanding of the main concepts related to sustainable and community development initiatives.

Social Impact, Inc.  
2300 Clarendon Boulevard  
Arlington, VA 22201  
Suite 1000  
Tel: (703) 465-1884  
Fax: (703) 465-1888  
[www.socialimpact.com](http://www.socialimpact.com)