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Project Identification Form (PIF) entry – Full Sized Project – GEF - 7

## Implementation of Armenia's LDN commitments through sustainable land management and restoration of degraded landscapes

### Part I: Project Information

**GEF ID**

10365

**Project Type**

FSP

**Type of Trust Fund**

GET

**CBIT/NGI**☐ CBIT☐ NGI**Project Title**

Implementation of Armenia's LDN commitments through sustainable land management and restoration of degraded landscapes

**Countries**

Armenia

**Agency(ies)**

FAO

**Other Executing Partner(s)**

Ministry of Environment

**Executing Partner Type**

Government

**GEF Focal Area**

Land Degradation

**Taxonomy**

Focal Areas, Land Degradation, Land Degradation Neutrality, Carbon stocks above or below ground, Land Cover and Land cover change, Land Productivity, Sustainable Land Management, Ecosystem Approach, Restoration and Rehabilitation of Degraded Lands, Sustainable Agriculture, Integrated and Cross-sectoral approach, Community-Based Natural Resource Management, Improved Soil and Water Management Techniques, Sustainable Livelihoods, Sustainable Forest, Sustainable Pasture Management, Influencing models, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Demonstrate innovative approach, Convene multi-stakeholder alliances, Stakeholders, Local Communities, Type of Engagement, Partnership, Participation, Information Dissemination, Consultation, Communications, Behavior change, Awareness Raising, Strategic Communications, Civil Society, Non-Governmental Organization, Academia, Beneficiaries, Private Sector, Individuals/Entrepreneurs, Gender Equality, Gender results areas, Access and control over natural resources, Capacity Development, Knowledge Generation and Exchange, Participation and leadership, Access to benefits and services, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups, Capacity, Knowledge and Research

**Rio Markers****Climate Change Mitigation**

Climate Change Mitigation 1

**Climate Change Adaptation**

Climate Change Adaptation 1

**Duration**

36 In Months

**Agency Fee(\$)**

207,395

**Submission Date**

10/3/2019

## A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
LD-1-1	GET	1,383,105	1,600,000
LD-1-4	GET	200,000	8,720,000
LD-2-5	GET	600,000	1,000,000
Total Project Cost (\$)		2,183,105	11,320,000

## B. Indicative Project description summary

## Project Objective

To support the national efforts to implement LDN targets of Armenia through sustainable land management and restoration of degraded landscapes

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1. Strengthened enabling environment and capacity at national level for evidence-based implementation of Land Degradation Neutrality (LDN)	Technical Assistance	<p>1.1. Enhanced enabling environment for LDN at national level</p> <p><u>Targets:</u></p> <ul style="list-style-type: none"> <li>- Two cross-sectoral policies/ One law integrating LDN principles</li> <li>- Functioning in intersectoral coordination mechanisms for LDN (horizontal and vertical)</li> </ul>	<p>1.1.1. Assessment of LDN policy gaps and development of cross-sectoral policies/legal framework supporting LDN principles</p> <p>1.1.2. Strengthened intersectoral coordination mechanisms at two levels: national level, and between the national level and local decision makers and farmer groups</p> <p>1.2.1. Assessment of the current status, trends, drivers, including impacts of climate change and migration, and costs of land degradation based on existing data and information (using LADA, WOCA T, ELD, etc.)</p> <p>1.2.2. LDN indicators (land cover, land productivity, and s</p>	GET	600,000	1,200,000



<p>1.2. Enhanced understanding of land degradation drivers in forms LDN target setting at the national and community levels</p>	<p>oil organic carbon) in target Regions assessed and mapped (using Trends.Earth, CollectEarth, etc.)</p>
<p><u>Targets:</u></p>	<p>1.2.3. Monitoring system for LDN indicators integrated into the national land use monitoring systems</p>
<p>- Land degradation trends and drivers mapped and its costs assessed; LDN local baseline established and mapped</p>	<p>1.3.1. LDN training material developed for decision makers as well as practitioners</p>
<p>- LDN targets (Anticipated future losses versus Anticipated future gains) established in target Communities</p>	<p>1.3.2. National capacity building program on LDN for key decision-makers and practitioners at national and sub-national level</p>
	<p>1.3.3. LDN decision support system for target-setting, planning and strengthening of governance arrangements to gether with national and local stakeholders established</p>

1.3. Enhanced capacity to implement LDN at national and local levels

Targets:

- 600 people trained (of which 50% are women) (group breakdown in section 3)

Component 2. Scaling up of resilient Sustainable Land Management (SLM) practices and approaches to meet LDN targets in degraded landscapes in Armenia

Investment

2.1. Resilient SLM practices and investments introduced on degraded land in target Regions

2.1.1. Integrated land-management plans developed using participatory approaches and integrated with existing Community land use planning processes in target regions (Lori, Siunik)

GET

1,259,148

9,440,000

<p><u>Targets:</u></p> <ul style="list-style-type: none"> <li>- Two ILM plans</li> <li>- 4,000 ha of degraded grasslands restored</li> <li>- 56,000 ha under SLM practices in target regions (of which: 50,000 ha grasslands; 6,000 ha croplands)</li> <li>- 0.49 million t CO<sub>2</sub>-eq sequestered</li> <li>- Two LDN local transformative gender sensitive projects/programmes of actions in target regions</li> </ul>	<p>2.1.2. Demonstration plots established with SLM best practices and integrated restoration of landscapes that provide carbon benefits</p> <p>2.1.3. Resource mobilization plans developed for scaling up of best practices that incorporate National and target Regions Government and contributions from donors</p> <p>2.2.1. Life Cycle Assessment of the land-based value chains (e.g. NTFPs, herbal teas and oil, dairy, wild mushrooms, timber, etc.)</p> <p>2.2.2. Training programs on value-chains management (e.g. marketing, processing, certification) for local communities</p> <p>extension services, farmers, women groups, and youth</p>
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2.2. Key land-based value-chains strengthened and made more resilient and equitable

Targets:

- Two value chains (at least one focused on women) improved through LDN principles

- Three university Curricula modified to include relevant LDN topics

- 350 training certificates obtained (disaggregated by gender and youth)

- 2,500 direct target beneficiaries with strengthened livelihoods or sources of income (households)

- increase in income of small holder farmers (10%)

Component 3. Monitoring, Evaluation and lessons learned	Technical Assistance	<p>3.1. Project monitoring and evaluation and assessment of global environmental benefits and LDN</p> <p><u>Targets:</u></p> <ul style="list-style-type: none"> <li>- Functioning M&amp;E system and GEBs and co-benefits established</li> <li>- Functioning LDN reporting to the UNCCD</li> </ul>	<p>3.1.1 Project mid-term and final evaluation conducted</p> <p>3.1.2 Global Environment Benefits, co-benefits and costs of SLM in degraded landscapes monitored and assessed using gender disaggregated data</p> <p>3.1.3. Monitoring system for LDN indicators (land cover, soil productivity and soil organic carbon) in place</p> <p>3.2.1. Communication strategy developed and implemented to support SLM scaling up to meet LDN targets</p> <p>3.2.2. Lessons analyzed and knowledge management products developed and disseminated to promote replication of the LDN approach</p>	GET	220,000	400,000
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3.2. Lessons learned and dissemination of knowledge to support scaling up of LDN

Targets:

- 10 knowledge products and training/awareness raising materials on SLM and LDN (50% tailored to women)

Sub Total (\$)	2,079,148	11,040,000
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**Project Management Cost (PMC)**

GET	103,957	280,000
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Sub Total(\$)	103,957	280,000
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Total Project Cost(\$)	2,183,105	11,320,000
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## C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Ministry of Environment	In-kind	Recurrent expenditures	100,000
Government	Ministry of Economy	Public Investment	Investment mobilized	1,000,000
Government	Ministry of Territorial Administration	In-kind	Recurrent expenditures	50,000
Government	Implementation Unit/Agency of Environmental projects	In-kind	Recurrent expenditures	10,000
Government	Forest Committee	In-kind	Recurrent expenditures	10,000
Beneficiaries	Communities within regions of Siunik and Lori	In-kind	Recurrent expenditures	50,000
Others	Agrarian University	In-kind	Recurrent expenditures	100,000
GEF Agency	FAO	Grant	Investment mobilized	10,000,000
<b>Total Project Cost(\$)</b>				<b>11,320,000</b>

**Describe how any "Investment Mobilized" was identified**

Ministry of Economy: Financing mobilized and directed to meet the objective of the project in the current draft Agriculture Policy (2019-2029) FAO: GCF project "Forest resilience of Armenia, enhancing adaptation and rural green growth via mitigation" Project status: Funding Proposal under review by the GCF Secretariat. Co-financing possibility of the proposed LDN project has been agreed with the Government of Armenia and the GCF Secretariat.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Armenia	Land Degradation	LD STAR Allocation	2,183,105	207,395	2,390,500
Total GEF Resources(\$)					2,183,105	207,395	2,390,500



**E. Project Preparation Grant (PPG)**

PPG Amount (\$)

100,000

PPG Agency Fee (\$)

9,500

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Armenia	Land Degradation	LD STAR Allocation	100,000	9,500	<b>109,500</b>
Total Project Costs(\$)					<b>100,000</b>	<b>9,500</b>	<b>109,500</b>

## Core Indicators

### Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
4000.00	0.00	0.00	0.00

### Indicator 3.1 Area of degraded agricultural land restored

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

### Indicator 3.2 Area of Forest and Forest Land restored

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

**Indicator 3.3 Area of natural grass and shrublands restored**

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
4,000.00			

**Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored**

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

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
56000.00	0.00	0.00	0.00

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Type/Name of Third Party Certification

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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56,000.00

## Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

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

## Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted
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## Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	492672	0	0	0
Expected metric tons of CO <sub>2</sub> e (indirect)	0	0	0	0

## Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	492,672			

Expected metric tons of CO <sub>2</sub> e (indirect)	
Anticipated start year of accounting	2021
Duration of accounting	20

## Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)				
Expected metric tons of CO <sub>2</sub> e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

## Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

**Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)**

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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**Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment**

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	750			
Male	1,750			
Total	2500	0	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Core indicator 6 (Greenhouse Gas Emissions Mitigated) estimate is based on FAO EX-Ante Carbon-balance Tool (EX-ACT) calculations for the sum of direct and indirect emissions for 20 years for GEF investment only (3 years project implementation and 17 years project capitalization).

## Part II. Project Justification

### 1a. Project Description

#### 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

Armenia is a lower-middle-income, land-locked developing country (LLDC) with a population of 3 million, located in the South Caucasus. The country is a net importer of food and fuel, highly vulnerable to global price fluctuations. Russia accounts for a quarter of Armenia's foreign trade, over 50% of foreign direct investment, and more than 80% of remittances from migrant workers (remittances comprise up to 20% of GDP) thereby contributing to negative impacts on consumption and income. Long-term labour migration is mostly male dominated, increasing the number of de facto female single-headed households to 26.5% of all rural households. GDP growth slowed to 3% in 2015 and is expected to reduce further in 2016, hindering any extension of social safety nets.

Agriculture is the main source of economic activity in rural areas and significant contributor to GDP. It produces 20.8% of GDP (as of 2015), accounts for some 2% of economic growth, and employs about 35% of the working population of whom nearly 56% are female farmers. Women are over-represented in seasonal and precarious employment and 82.1% of all women working in agriculture do so informally. This informality, which leads to a reduced access to social protection schemes, along with limited access to land and other agricultural assets compared with men, leave women in a vulnerable situation. Smallholders constitute the vast majority in the country, representing around 95% of all farms with the average size of 1.4 ha usually fragmented into three or four parcels. Smallholders produce the major part of gross agricultural product, around 97%.

Currently, about 24,353 km<sup>2</sup> of the territory of the Republic, 81.9% (excluding the surfaces of Lake Sevan and water reservoirs), are to different extents exposed to desertification: 26.8% of the total territory of Armenia faces extremely severe desertification; 26.4%, severe desertification; 19.8%, moderate desertification; and 8.8%, slight desertification. Only 13.5% (400 km<sup>2</sup>) of the territory is not exposed to desertification. Also, Armenia is extremely vulnerable to climate change, according to USAID, by 2030 yields are forecasted to decline by 8-14% (agriculture), by 4-10% (pastures) and in reduction of forest cover of about 1/3 of remaining 11.2% with over 15% of Armenia's higher plant species in danger of extinction. Total GHG emissions in 2013 accounted for 8.45 MtCO<sub>2</sub>e (2.82 tCO<sub>2</sub>e/capita, 0.02% of global GHG emissions). Energy accounts for 70%, agriculture for 16.0% followed by waste and industrial processes. Land use, land use change and forestry (LULUCF) activities absorbed yearly (only from forests) about 0.48 MtCO<sub>2</sub>e, representing a net carbon sink equivalent to 4.6% of total emissions. Armenia's NDC aims, by 2050, at emitting 2.07 tCO<sub>2</sub>e/capita.

Land degradation and desertification in Armenia are driven by both natural and anthropogenic factors. Natural causes of degradation include droughts and sandstorms, moisture deficits caused by unequal distribution of seasonal and regional rainfall, naturally occurring salinization, as well as floods and landslides during the rainy periods. Anthropogenic causes of degradation include inefficient agricultural practices (lack of crop rotation, inefficient use of irrigation



techniques, overgrazing of pastures, and violation of ploughing rules), illegal logging, overuse of groundwater resources (artesian wells), and soil contamination, as well as mining, urban development and road construction.

Eroded land in Armenia increased by 20,000 ha between 2000 and 2010. Almost half of all cropland in the country is affected by water erosion, while wind erosion can be seen in small cropland areas in the Ararat plain. More than 50% of all grassland ecosystems that are used as pastures and hayfields, are in various stages of degradation, caused both by over- and under-grazing. In this context, the government of Armenia developed its Land Degradation Neutrality strategy which includes four targets: (1) Stop cropland degradation and promote agro-ecology (conservation plus modern “organic” technology); (2) afforest and/or reforest 2/3 of the degraded land; (3) Stop deforestation and improve forest management in 100% of national territory; (4) Stop overgrazing and improve grassland management in 100% of national territory.

In addition to the on-going land degradation processes, climate change poses a serious risk to the vitality of the agriculture sectors in the country. These changes in climate are expected to exacerbate land degradation processes in the country unless action is taken. To overcome the multiple challenges to sustainable land management in Armenia and for the country to prepare to achieve LDN in line with SDG target 15.3, three interlinked barriers need to be addressed:

*Barrier 1: Weak enabling environment.* At present, despite relatively good knowledge and high-level understanding of the land degradation situation, there are no national programs, plans or regulations to promote the introduction and dissemination of LDN. The upcoming revision of the Agriculture Policy (2019-2029) is lacking LDN considerations. Grassland and pastureland management is scattered among several legal frameworks and Codes. LDN approaches are not yet integrated in land-use planning processes; various departments and divisions do not work in an integrated way. Likewise, there are no significant national budget allocations to LDN.

*Barrier 2: Limited of knowledge and awareness.* Although the general land degradation processes are understood, the details of the interactions between current sector management systems and land degradation are not well known. There is no scientific data on how different sector management systems affect LDN indicators. There is also limited information available on land productivity and soil organic carbon content of lands in Armenia. At the local level, land users are generally not aware that alternatives exist and that the benefits of these alternatives are probably high – this is especially the case for small and middle size farms. In particular, they are not aware of the details of alternative practices, which to use and when, and what are the benefits. This lack of knowledge is a barrier to securing new private or donor funding to new SLM technologies and practices.

*Barrier 3: Poor capacity of decision-makers and local communities to identify and monitor the benefits of innovative SLM approaches and technologies.* Modern measures to improve degraded land, especially overgrazed pastureland, such as, for example, pastures’ rest, and implementation of rotational grazing system is currently used sporadically. There is no monitoring of the benefits of such practices nor dissemination of knowledge to support broader scaling up strategies. There is no system in place to identify how to balance land degradation and loss of productive land with restoration within given land types, nor the transfer such lands to other land types. In other words, there is no mechanism for monitoring the implementation and achievement of LDN.

## 2) the baseline scenario and any associated baseline projects

The Government of Armenia (GoA) acknowledges the above-mentioned barriers to achieving LDN and is committed to provide an effective response across sectors and at various government levels. Republic of Armenia, as a signatory to the UNCCD, is committed to set and implement measures that meet the global commitments of LDN, contributing to goal 15.3 of the SDGs to achieve LDN by 2030.

In the baseline scenario, several national organizations are implementing related activities. The government of Armenia has a number of national strategies and legislative/regulatory frameworks addressing land-related issues. *The Land Code*, and supporting regulations, stipulates the responsible bodies for management of land resources. The system of the authorized bodies Ministry of Economy, Urban Development Committee, Ministry Environment, Ministry of Territorial Administration and Infrastructure, Ministry of Health, Ministry of Education, Science, and Culture and Sport, Cadastre Committee, Water Committee, and the scope of their authorities, as well as the list of legal acts ensuring the implementation of the Land Code were established. *The Forest Code* controls the use and protection of forest land. There are several regulations related to creating the national framework on land degradation and land-related issues. In addition, there are currently several related international supported projects, described below.

Through the Land Degradation Neutrality (LDN) Target Setting Programme, **the Global Mechanism (GM)** and the secretariat of the UNCCD, in collaboration with multiple international partners, are supporting interested countries with their national LDN target setting process, including setting national baselines, targets and associated measures to achieve LDN. Sustainable Development Goal (SDG) target 15.3 states: “By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.” The LDN National target for Armenia has been set to: “By 2040 the carbon stock lost between 2000 and 2010 will be recovered and increase by 2.8% in relation to present”.

In addition, **the Government of Korea** is supporting the GoA with a pilot project “Implementation of the LDN pilot in the Ararat Valley”. The project is supported by the UNCCD is promoting reforestation, install drip irrigation and soil fertility enhancement (2018-2020). The project is promoting drip irrigation and the knowledge, technology, and lessons learned will be replicated during the GEF project implementation.

### The World Bank/Ministry of Economy

“Community Agricultural Resource Management and Competitiveness (CARMAC, Second Program)”. Implemented in the following regions: Aragatsotn, Shirak, Lori, Tavush, Gegharquniq, Syuniq. The main goals of the CARMAC second project are to improve the productivity and sustainability of pasture and livestock systems in the target communities and to increase production volumes produced and marketed in selected high value agri-food value chains. Budget: US\$42 million, 2015-2019. Components: Community Pasture and Livestock Management Systems, Value Chain Development, State Capacity Building Capacity. The GEF project will use the lessons learned from the CARMAC experience and during the PPG and will evaluate the possibility to strengthen the same value chains boosting the results with the LDN principles, or if complementary value chains should be selected enhance the diversification of the livelihoods.

**GIZ/Ministry of Territorial Administration and Infrastructure**

1) “Management of natural resources and safeguarding of ecosystem services for sustainable rural development in the South Caucasus (ECOserve)”. Implemented in Armenia, Azerbaijan, Georgia. Budget: US\$15 million, 2018-2021. The goal is improving conditions for the sustainable and biodiversity-friendly use of natural resources in the dominant land-use systems (grazing, agriculture and forest) in the South Caucasus. The focus is on the dominant land-use systems - grazing land in Armenia, agriculture in Azerbaijan, and forests in Georgia. Project components: Data collection and management, Regulatory framework, Pilot activities, Training and PR, establishment of pasture platform. Lessons learned and data n pastureland management will be important to strengthen the technical quality of the proposed project. The project also established a national platform on pastures that will be strengthened by the GEF project.

2) “Integrated Biodiversity Management in the South Caucasus”. Implemented in Armenia, Azerbaijan, and Georgia. Budget: US\$23 million, 2015-2019. The goal is the management of biodiversity and ecosystem services, coordinated across various sectors, and has improved through the use of solid data. Developing strategies to support the sustainable management of biodiversity and ecosystem services across sectoral and administrative boundaries, based on robust data. Through this approach, helping safeguard the species and habitat diversity for future generations. Activities: Advise partners on developing cross-sectoral policies, strategies and laws. Support in developing and establishing monitoring/inventory systems for forests, as well as biodiversity and ecosystem services, and facilitate inter-ministerial dialogue based on solid data. Drawing on the lessons learned in pilot regions, having demonstrated how natural resources can be managed more sustainably and protected while taking diverse interests into account. Components: 1) Demonstrating sustainable biodiversity management in pilot regions In Aragatsotn, Shirak and Sisian, we are supporting municipalities in piloting an integrated pasture management approach designed to prevent soil degradation in the long term. 2) Improving frameworks and supporting capacity development. 3) Education for sustainable development. 4) Regional exchange and dialogue. Results achieved are the support of two earlier projects, sector policies, strategies and laws have been developed based on European standards and norms. Environmental education, formerly aimed just at schools, is increasingly reaching the population as a whole. A number of strategies have already been successfully implemented for the sustainable management of forests, for climate-adapted agriculture and for improved pasture management. The GEF project will be able to use the generated data during the PPG and implementation, and build on the strategies developed for pasture management.

**UNDP/Ministry of Environment (GEF project, not considered co-financing)**

“Mainstreaming Sustainable Land and Forest Management in Mountain Landscapes of North-eastern Armenia”. The objective is project is to facilitate the shift from the current unsustainable to sustainable forest management in North-Eastern Armenia. To achieve this, the project objective will ensure sustainable land and forest management to secure continued flow of multiple ecosystem services. Target regions: Tavush, Lori. Budget: US\$3 million, 2015-2019. The generated knowledge will be used by the proposed GEF project.

**Expected outputs:**

- 11 forest management plans updated to integrate considerations of biodiversity, ecosystem services, climate mitigation and community resource use
- Number of forest management plan protocols/guidelines for mainstreaming ecosystem considerations into FM developed/approved by the government

- 85,000 ha of high biodiversity conservation value forests designated
- 4932 ha of degraded forests regenerated in 6 forest branches
- 1000 ha of degraded pasture and hay fields rehabilitated to reduce pressure on forest lands
- 3000 ha hectares of forest land under multiple use regimes (sustainable NTFP production and agro-forestry) with participation of forest dependent communities
- 15% decrease in number of livestock using natural forests for grazing, 15% reduction in forest firewood collection areas
- National system of carbon stock assessment completed for key forest types in NE Armenia

#### FAO/ Ministry of Environment (GCF, main source of co-financing)

The project "Forest resilience of Armenia, enhancing adaptation and rural green growth via mitigation" will be financed over an eight years period with a total budget of USD 19.2 million: 52%-GCF, 31%- Republic of Armenia, 9% Austrian Development Agency (ADA), and 8% as FAO, WWF-ARMENIA and the Autonomous Province of Bolzano (APB, Italy). The project will invest in Lori and Syunik Regions with the highest forest degradation by: (i) increasing forest cover by 2.5%, (ii) reducing fuelwood demand of rural communities by at least 30%, (iii) enabling sustainable and climate adaptive forest management on at least 135,800 ha of forests (20 y) and ensuring technology transfer to rural communities, private sector and institutions. Beneficiaries of the project are the total rural population of target areas (15 municipalities and 207 rural communities), the private sector and line ministries including, among the others, the Ministry of Economy and Innovation, the Ministry of Territorial Administration and Development and the Ministry of Energy and Nature Protection. Rural communities in the two regions are mostly poor or very poor with the higher direct dependency on forest ecosystem services for fuelwood (average 8 m<sup>3</sup>/y) and livelihood (agriculture, beekeeping, NWFP). The project will invest in forest restoration in the same regions as the proposed GEF project and can thereby contribute to achieving LDN on forest land. Taking an integrated landscape approach, the GEF project will establish a system for monitoring of LDN on all land types and promote restoration on the widespread pastures in the regions. LDN Target Setting Report, that identifies the national goal as "By the year 2040, the carbon stock lost between 2000 and 2010 will be recover and increase by 2,8% in relation to present". The report further identifies four targets to achieve the goal, with the proposed project directly responding to the two of them: (1) Stop deforestation and improve forest management in 100% of national territory by 2050 and (2) Stop overgrazing and improve grassland management in 100% of national territory by 2040. GCF co-financing will focus on achieving LDN goal (1) on forests, while GEF funding will target goal (2) on pasturelands (Component 2). The GEF funding also targets integration of the sectors between different levels of governance and management in accordance with the LDN principles and hierarchy of response measures (Component 1). The two projects also have geographic synergies as both projects target Lori and Syunik provinces.

All of the above-mentioned projects are closely related to the proposed GEF project, in terms of policy, institutional and technical baseline, beneficiaries and landscapes. The current situation indicates that a tremendous effort is required to achieve SDG 15 as well as the set national LDN target, expected to be achieved by 2040. However, it is also clear that ongoing initiatives and the existing policy, institutional and legal framework will not allow Armenia to accomplish its international commitments to the 2030 Agenda. The lack of internal coordination needs to be overcome as it poses a barrier to the achievement of the national targets. Armenia therefore still needs support to all the steps involved in achieving LDN: (1) Leveraging LDN through improved coordination across ministries and sectors involved in land management, (2) assessing LDN, including the current state of land degradation and its drivers;

(3) setting LDN targets (although this has been initiated) and associated measures to avoid, reduce or reverse land degradation; and (4) achieving LDN through strengthening of the enabling environment and integration of the LDN concept into national policies as well as identification of transformative LDN programmes and projects. The proposed project is thus designed to assist Armenia in taking the steps required to achieve LDN.

### **3) the proposed alternative scenario with a brief description of expected outcomes and components of the project**

The proposed project will follow a landscape approach in line with GEF's vision to foster sustainable integrated landscapes. Working at landscape level allows issues to be addressed in a multifaceted way, integrating sectors, involving stakeholders and working at different scales – tackling the underlying causes of degradation and challenges related food security and not just the symptoms. Landscape and territorial approaches that focus on people and their aspirations are among the most effective ways to address development needs while restoring and protecting natural resources. In this context, the project will work to formulate comprehensive land use planning to rationalize land use in a way that addresses interconnectedness and trade-offs across multiple ecosystems, promote good governance to align policy directives at the national and sub-national level, and promote innovations in sustainable land management (SLM).

To remove the barriers to SLM and implementation of LDN in Armenia, the project will take a three-pronged approach starting with strengthening the enabling environment for LDN, followed by support to scaling up of resilient SLM practices in degraded landscapes. These two components will be underpinned by monitoring, evaluation and dissemination and communication of lessons learned that would support further scaling up of resilient SLM practices in Armenia in support of LDN targets.

#### ***Component 1. Strengthened enabling environment and capacity at national level for evidence-based implementation of Land Degradation Neutrality (LDN)***

**Outcome 1.1. Enhanced enabling environment for LDN at national level.** This outcome includes development of two cross-sectoral policies covering environment, forestry, agriculture, rural development and knowledge development/transfer. That will integrate the key LDN principle of balancing degradation of land with restoration within the same land type so that the net balance of productive land is neutral or positive compared with the baseline. The Land Code will also be strengthened and a new law related to LDN will be developed. Implementation of the new policy and legal framework for LDN will be supported by enhanced intersectoral coordination for LDN through two mechanisms that (i) link different sectors at the national level, and (ii) link the national level with the regional/landscape level. This will be achieved through two outputs with associated activities:

Output 1.1.1. Assessment of LDN policy gaps and development of cross-sectoral policies/legal framework supporting LDN principles. Activities include:

- Policy review and mapping of entry points for LDN in relevant sectors, such as environment, agriculture, forestry, energy, including gender sensitive analysis
- Analysis of policy gaps and constraints to implement LDN principles

- Drafting of cross-sectoral policies for achievement of LDN through integrated landscape management with focus on pastures

Output 1.1.2. Strengthened intersectoral coordination mechanisms at two levels: national level, and between the national level and local decision makers and farmer groups. Activities include:

- Analysis of the existing mechanisms for implementation of the UNCCD and SLM in Armenia
- Development of new TORs for the existing UNCCD coordination mechanism that integrate LDN implementation and strengthening of its mandate
- Establishment of intersectoral coordination mechanisms to support LDN implementation at the landscape scale in Lori and Siunik Regions

**Outcome 1.2. Enhanced understanding of land degradation drivers informs LDN target setting at the national and community levels.** Under this outcome, land degradation trends and drivers will be mapped and its costs assessed. In addition, the LDN local baseline will be established and mapped and LDN targets (anticipated future losses versus anticipated future gains) will be established in target landscapes in Lori and Siunik Regions. The outcome will be achieved through three outputs:

Output 1.2.1. Assessment of the status, trends, drivers, including impacts of climate change and migration, and costs of land degradation based on existing data and information (using LADA, WOCAT, ELD, etc.). Activities will include:

- Land Degradation Assessment in Dryland (LADA) global and local tools will be used to assess land degradation status, trends and drivers.
- World Overview of Conservation Approaches (WOCAT) QT and QA questionnaires will be used to assess drivers of degradation and barriers to SLM,
- Economics of Land Degradation (ELD) tools and knowledge will be used to assess and/or estimate the costs of land degradation

Output 1.2.2. LDN indicators (landcover, land productivity, and soil organic carbon) in target Regions assessed and mapped (using Trends.Earth, CollectEarth, etc.). Activities include:

- In-depth analysis of available data and metrics in Armenia on land cover, land productivity and soil organics carbon
- CollectEarth (FAO) and/or Trends.Earth (CI) used to assess LDN using existing national datasets and freely available remote sensing data

Output 1.2.3. Monitoring system for LDN indicators integrated into the national land use monitoring systems. Activities include:

- Raise institutional capacities on monitoring of LDN indicators (landcover, land productivity, and soil organic carbon) and their driving factors (soil erosion, soil salinity, soil carbon sequestration potential)
- Mapping the entry points for include the LDN indicators in the current national land use monitoring systems

- Establish LDN monitoring system and integrate it with land use monitoring

**Outcome 1.3. Enhanced capacity to implement LDN at national and local levels.** Under this outcome, 600 people will be trained at national level and sub-national levels, of which 50% will be women, to ensure sufficient capacity to implement LDN at different scales. The training will target decision makers and technical staff from the Ministry of Environment, including Bioresources Management Agency, Forest Committee; Local Self-Governing Bodies (Lori and Syunik Regions) and Ministry of Economy involved in the implement of LDN (100 people); Extension staff at the national level will be trained with staff from Lori and Syunik Regions to be prioritized (100 people); and Local communities (through the rural advisory service, farmer-to-farmer training, etc.) from Lori and Syunik Regions (400 people). It will be achieved through three outputs:

Output 1.3.1. LDN training material developed for decision makers as well as practitioners. Activities include:

- Development of training module on LDN principles, concepts and key indicators targeting decision makers and technical staff
- Development of training module on LDN in practice and how implementation of SLM could contribute to achieve LDN targets at national and sub-national level targeting technical staff as well as local communities (through the rural advisory service farmer-to-farmer training, etc.)

Output 1.3.2. National capacity building program on LDN for key decision-makers and practitioners at national and sub-national level. Activities include:

- Training in LDN of decision makers and technical staff at the national level
- Training in LDN of extension staff and local communities

Output 1.3.3. LDN decision support system for target setting, planning and strengthening of governance arrangements together with national and local stakeholders established. Activities include:

- DS-SLM tools developed by a FAO/GEF project used to design the LDN system and integrate data identified under outputs 1.2.1 and 1.2.2.
- LDN decision-support system established at national level
- LDN pilot systems at sub-national level established in Lori and Siunik

## ***Component 2. Scaling up of resilient Sustainable Land Management (SLM) practices and approaches to meet LDN targets in degraded landscapes in Armenia***

### **Outcome 2.1. Resilient SLM practices and investment introduced on degraded land in target regions**

Two integrated land management plans will be generated under this outcome supporting the restoration of 4,000 ha of degraded grasslands, and of forestlands within the State Forest Fund and abandoned lands (through co-financing). It will also bring 56,000 ha of land under SLM practices in target regions (of which: 50,000 ha grasslands; 6,000 ha croplands). All this together will result in sequestration of 0.49 million tCO<sub>2</sub>-eq. In addition, two LDN local transformative gender sensitive projects/programmes of actions will be develop in target regions to support further scaling up of LDN. Improved SLM practices will lead to increase in income of small holder farmers (estimated at 10-20% increase). Indirectly the project will impact a larger number of small farmers as the component 1 is linked to the development of a new legal framework, strengthening of national capacity and improvement of the governance arrangements. The outcome will be achieved through three outputs:

Output 2.1.1. Integrated land-management plans developed using participatory approaches and integrated with existing community land use planning processes in target regions (Lori, Siunik). Activities include:

- Stakeholder analysis and mobilization of local communities in target landscapes in Lori and Siunik
- Participatory land-use planning with local communities following e.g. CIFOR's manual,
- Integration of the integrated land management plans with other community and district-level planning processes.

Output 2.1.2. Demonstration plots established with SLM best practices and integrated restoration of landscapes that provide carbon benefits. Activities include:

- Demonstration of sustainable pasture management practices within the ILM plans, including improved rotations, etc.
- Demonstration of sustainable forest management practices within the ILM plans
- Demonstration of sustainable agricultural practices, including integrated crop-livestock system, efficient water usage technologies such as drip irrigation of vegetables close to homesteads, etc.

Output 2.1.3. Resource mobilization plans developed for scaling up of best practices that incorporate National and target regions Government and contributions from donors. Activities include:

- Identification of possible sources of financing for scaling up of SLM to achieve LDN at sub-national level, including in-kind contributions from communities, cooperatives, private sector, etc.
- Identification and national level of LDN financing including from line ministries, donors, climate finance, private sector, etc.
- Development of resource mobilization plans at national and sub-national level to scale up LDN.



**Outcome 2.2. Key land-based value-chains strengthened and made more resilient and equitable.** Two value chains will be improved to support LDN and at least one will be focused on women and could include herbal teas, oils, wild mushrooms, etc. As the National Agricultural University of Armenia plays a key role in training both public and private extension agents, three university Curricula will be modified to include relevant LDN topics, leading to 350 training certificates obtained by the extension agents (disaggregated by gender and youth), and 2,500 direct target beneficiaries (households) benefit from improved advice on value-chains. The outcome will be achieved through two outputs:

2.2.1. Life Cycle Assessment of the land-based value chains (e.g. NTFPs, herbal teas and oil, dairy, wild mushrooms, timber, etc.). Activities include:

- Selection of value chains based on environmental and socio-economic sustainability criteria
- Social life cycle assessments (SLCAs) and life cycle sustainability assessments (LCSAs) of the selected value chains conducted including land use indicators
- Selection of the two value chains to be supported based on the SLCA and LCSA results and assuring that at least one of them is focused on women only.
- Development of business plans for the selected value chain, including financial institutes

2.2.2. Training programs on value-chains management (e.g. marketing, processing, and certification) for local communities extension services, farmers, women groups, and youth. Activities include:

- Training of the extension service in new business models, as well as marketing, processing and certification of selected value chains
- Training of local communities in business management, marketing, processing and certification of selected value chains
- Training targeting women and youth on business management, marketing, processing and certification of selected value chains

### ***Component 3. Monitoring, Evaluation and lessons learned***

**Outcome 3.1. Project monitoring, evaluation, monitoring, and assessment of global environmental benefits and LDN.** This outcome includes a functioning project M&E system, monitoring, and assessment of global environmental benefits and co-benefits that will be generated by the project. It will also include LDN reporting to the UNCCD and be generated by three outputs:

Output 3.1.1 Project mid-term and final evaluation conducted. Activities include:

- Project mid-term evaluation
- Project final evaluation

Output 3.1.2 Global Environment Benefits, co-benefits and costs of SLM in degraded landscapes monitored and assessed using gender desegregated data. Activities include:

- Monitoring of GEBs, including area under SLM and carbon benefits.
- Monitoring of socio-economic benefits using gender disaggregated data.
- Assessment of GEBs and co-benefits for reporting to the GEF and for the mid-term and final evaluations.

Output 3.1.3. Monitoring system for LDN indicators (land cover, soil productivity and soil organic carbon) in place. Activities include:

- Harmonisation and digitization of land cover data together with the Land Cadastre.
- Harmonisation of land productivity monitoring using remote sensing (NDVI) and national data on soil fertility.
- Soil organic carbon monitoring at agricultural experimental stations digitized.
- Monitoring system established under the auspices of the Ministry of Environment ...

### **Outcome 3.2. Lessons learned and dissemination of knowledge to support scaling up of LDN**

10 knowledge products and training/awareness raising materials on SLM and LDN (50% tailored to women) will support the dissemination of knowledge and scaling up of SLM to other landscapes and regions in Armenia. The national LDN coordination mechanism linked to the UNCCD will play a key role in this regard. Two outputs will generate this outcome:

Output 3.2.1. Communication strategy developed and implemented to support SLM scaling up to meet LDN targets. Activities include:

- Development of communication strategy in consultation with key line ministries and stakeholders.
- Adoption of the communication strategy by the national LDN coordination mechanism that will be established under outcome 1.1.

Output 3.2.2. Lessons analysed and knowledge management products developed and disseminated to promote replication of the LDN approach. Activities include:

- Development of publications and fact sheets on LDN and how to balance degradation with restoration
- Development of publications on SLM best practices with focus on pasture management
- Development of publications on strengthening of selected value chains

#### **4) alignment with GEF focal area and/or Impact Program strategies**

The project will contribute to the Land Degradation focal area objective one to Support on-the-ground implementation of SLM activities to achieve LDN and its priority LD-1-1 Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management and LD-1-4 on Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape. This will be achieved through Project Component 2 on Scaling up of resilient SLM practices and approaches to meet LDN targets in two degraded landscapes in Armenia – Lori and Siunik. The project will also contribute to GEF LD objective 2 on Creating and enabling environment to support voluntary LDN target implementation and its priority LD-2-5 on Create enabling environments to support scaling up and mainstreaming of SLM and LDN through Component 1 on Strengthened enabling environment and capacity at national level for evidence-based implementation of LDN.

#### **5) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing**

The alternative scenario with GEF funding will lead to strengthened capacities to achieve LDN in Armenia thanks to strengthened intersectoral coordination on land-related issues and improved monitoring systems that improve decision-making. It will also lead to restoration of selected landscapes where degradation of grasslands and forests will be balanced with restoration to achieve a positive net balance at the landscape scale and contribute to improved livelihoods and socio-economic well-being of target communities. GEF incremental support will help introduce resilient and sustainable management of pastures, while forest restoration will be co-financed by a GCF project. This will help to will improve ground cover and productivity while enhancing carbon stocks in landscapes amounting to 0.49 million tCO<sub>2</sub>-eq. (GEF investment accounting only), while improving selected value-chains that will contribute to increased income generation opportunities and job creation. With the GEF funding, this project will therefore address key issues related to land degradation, such as soil erosion and loss of land productivity, through improved pasture management (GEF) and forest restoration (GCF). GEF-funded interventions will build on a solid baseline and consolidate ongoing projects funded by GCF, GIZ, FAO and others, and government efforts to strengthen overall capacities to achieve LDN. Moreover, GEF support will allow identification and promotion of good sustainable land management practices including rotation of pastures, and other value chains, which will help boost soil quality and land productivity, while conserving and enhancing carbon stocks in line with LDN targets. Without the GEF resources, the observed land degradation trends, lack of intersectoral institutional frameworks and policies, and unsustainable land management practices in the ecosystems that are not integrated biophysically and sectorally into landscapes, will lead to further loss of ecosystem services and global environmental goods and loss of socio-economic opportunities for local communities and the nation at large.

LDN Target Setting Report, that identifies the national goal as “By the year 2040, the carbon stock lost between 2000 and 2010 will be recover and increase by 2,8% in relation to present”. The report further identifies four targets to achieve the goal, with the proposed project directly responding to the two of them: (1) Stop deforestation and improve forest management in 100% of national territory by 2050 and (2) Stop overgrazing and improve grassland management in 100% of national territory by 2040. GCF co-financing will focus on achieving LDN goal (1) on forests, while GEF funding will target goal (2) on pasturelands (Component 2). The GEF funding also targets integration of the sectors between different levels of governance and management in accordance with the LDN principles and hierarchy of response measures (Component 1). The two projects also have geographic synergies as both projects target Lori and Syunik provinces. In addition, objectives LD 1-4 and LD 2-5 will be funded entirely by GEF, while LD 1-1 will be split between GEF and GCF respective of the synergies above.

#### **6) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and**

The project will seek to support the development of sustainable integrated landscapes to generate Global Environmental Benefits (GEBs) through building resilient landscapes that contribute to LDN targets in the Lori and Siunik mosaic landscapes that are dominated by grasslands and forests. The proposed project is expected to contribute to the global environment by (i) restoring 4,000 ha of degraded grasslands; (ii) bringing 56,000 ha under SLM practices in target regions (of which: 50,000 ha grasslands; 6,000 ha croplands); (iii) sequestration of 0.49 million tCO<sub>2</sub>-eq. The project will also increase the sustainability and resilience of agriculture value chains (e.g. NTFPs, herbal teas, wild mushrooms, etc.) and generate socio-economic co-benefits for 2,500 beneficiaries in Lori and Siunik. Value chains will be further analysed and selected in collaboration with local stakeholders in the PPG phase.

## 7) innovation, sustainability and potential for scaling up

### *Innovation*

Landscapes in Armenia are comprised of various land cover and use types, while their management is compartmentalized in various ministries and at various levels of administration. The introduction of the integrated landscape approach to balancing gains and losses in landscapes is new to Armenia and requires innovative ways of introducing close intersectoral collaboration. The existing GCF project in Armenia will focus strictly on the mitigation and adaptation benefits in the forestry sector, while the GEF project will target SLM and restoration of the grasslands/pasturelands and croplands. Bringing the two projects together under an integrated landscape approach will bridge the fragmented approaches to management of land. Grasslands and forestlands are featured prominently in Armenia's LDN report (3 out of 4 goals). Thus, with strong co-financing from the GCF and technical integration at the landscape level, the GEF incremental financing unlocks possible implementation of multiple goals of the LDN strategy.

In addition, this project design has followed the checklist for Land Degradation Neutrality (LDN) Transformative Projects and Programmes (TPP), assuring consistency and completeness in the implementation of LDN, and positive transformative change in support of LDN.

### *Sustainability*

The LDN approach will be integrated into national policies and programmes as well as monitoring systems that will ensure its sustainability from an institutional perspective. Capacity development and training of decision-makers as well as technical staff will further support the sustainability of LDN in Armenia and be supported by strengthened capacities also at the sub-national level of extension staff and local communities. In addition, the project will be anchored in innovative measures (such as community based management, pasture management approaches and technologies, landscape approach) for the restoration of degraded landscapes in selected areas. The project will support cooperation and collaboration among different sectors and existing stakeholders, and will increase the national capacity in dealing with degraded landscapes issues. These two features will support the sustainability of the project promoting ownership of the results and benefits generated

### *Scaling up*

Scaling up of LDN on the ground in Armenia will be supported by analysis of lessons learned from implementation of SLM and dissemination of knowledge products and training manuals on LDN. Scaling up of SLM to achieve LDN will also be supported by a strengthened policy framework and new laws and regulations supporting the implementation of the Land Code. Mainstreaming of LDN into forestry and the agricultural sector can also unlock more financing to LDN from the public as well as the private sector.

## 1b. Project Map and Coordinates

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



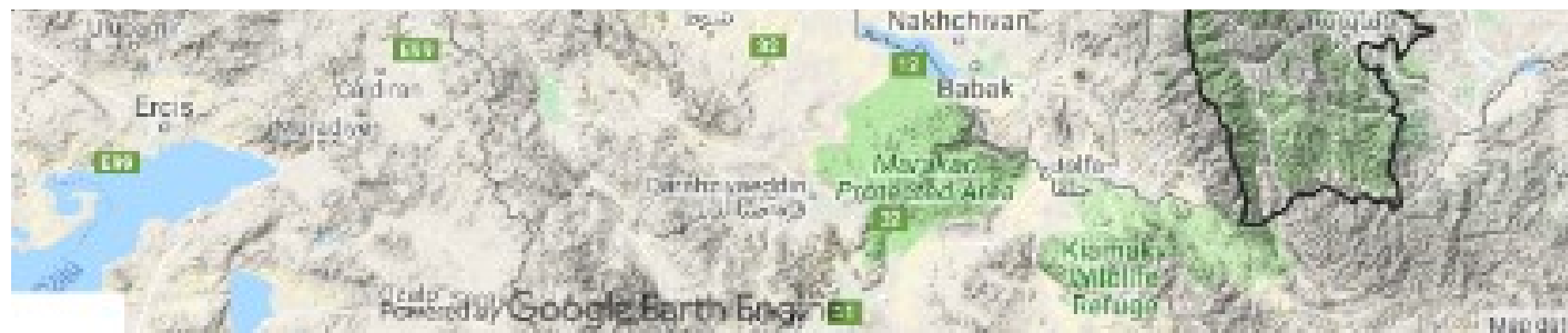


Figure 1: Armenia, target regions (Lori – North, Siunik – South)

## 2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities

Civil Society Organizations Yes

Private Sector Entities

If none of the above, please explain why:

On September 12, 2019, the Ministry of Environment hosted and lead a stakeholder consultation to discuss the PIF. Entities that attended the consultation: Ministry of Environment (Deputy Minister, Biodiversity and Forestry Policy Department, Agency of Bioresources Management, Implementation Unit/Agency of Environmental projects, Forest Committee, Forest Monitoring Center), Ministry of Territorial Administration, Ministry of Economy (former Agriculture), Cadastre Committee, Agrarian University. Local Governments: Lori Region Local Government, Shirak Region Local Government, Aragatsotn Region Local Government, Syunik Region Local Government, Kotayk Region Local Government. The consultation resulted in the selection of final regions for the field components. The stakeholder consultation meeting had large media coverage with 23 local media news stories. The article is available at <http://www.mnp.am/en/post/4177>

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

Stakeholder (group)	Mandate (or activities)	Potential role in Project
Ministry of Environment	The Ministry is the focal point for UNCCD, UNFCCC and CBD, and is responsible for the monitoring and implementing of land degradation neutrality in Armenia..	Provide technical and logistical support for the project implementation, support the identification of demonstration sites, benefit from capacity building activities.  Mainstream sustainable management and restoration of degraded grasslands landscapes into the NBSAP
Environmental Project Implementation Unit, State Agency of the Ministry of Environment	It is the agency in the Ministry of Environment responsible for liaison with government authorities from different sectors. It will oversee integration of conservation measures and monitoring system into the Integrated Forest and Land Use Plans and annual work plans, and contribute to capacity building of stakeholders (public/private/community).	Coordinate the project implementation,  Liaise internal coordination among the governmental stakeholder and support the implementation of the coordination mechanisms at both national and local level
Bioresources Management	Responsible to deliver up to date in	Mainstream sustainable management and restoration



Bioresources Management Agency (Ministry of Environment)	Responsible to deliver up-to-date information on the country's ecosystems. Also responsible for preparing the NBSAP	Mainstream sustainable management and restoration of degraded grasslands landscapes into the NBSAP
Ministry of Territorial Administration and Infrastructure	It is the central body of executive authority that develops and implements the policy of the Government of the Republic of Armenia in the field of territorial administration and infrastructure management	Responsible for the coordination with Local Self-Governing Bodies (Lori, Syunik regions) and the cross-sectoral policies/legal framework supporting LDN principles implementation at national level (building on the UNCCD mechanism) and benefit from capacity building activities
Ministry of Economy (former Ministry of Agriculture)	Under the agriculture sector, it is responsible for the country agrarian policy, rural extension service and all activities related to food production, processing and value chain	Support the implementation of the activities related to agriculture, also they will be responsible for mainstreaming LDN principles in the agricultural sector and to assure that the implementation of the Strategy for Sustainable Agricultural Development will be coordinated with the project implementation. And benefit from capacity building activities
Forest Committee (Ministry of Environment)	Responsible for conservation, protection, restoration, afforestation and effective use of state forests; ensuring sustainable forest management, the implementation of measures to increase the productivity of the state forests; the protection of biodiversity of state forests; efficient use of the environmental, social and economic potential of state forests; provision of complete and reliable information on the forest lands and forests	Support the project implementation and all activities related to forest management, restoration and new practices, also the Forest Committee be involved in the policy review process and will be important stakeholder in the cross-sectoral coordination mechanism
State Committee of Real Estate Cadastre	It maintains state registry of real estate and geospatial information systems, promotes development of real estate market, as well as development and implementation of land policy.	Responsible for the implementation of the monitoring system of the LDN targets and the proposed changes in the Land Code
Armenian National Agrarian University	State university and higher education	The Agrarian University will contribute to the knowledge

Armenian National Agrarian University	State university and higher educational institution based in Yerevan. The university trains and prepares specialists for the agricultural sphere.	The Agrarian University will contribute to the knowledge generation and knowledge transfer of the project including development of knowledge products and training content
Local Self-Governing Bodies (Lori and Syunik Regions)	They are responsible for the development and implementation of the Integrated Forest and Land Use Plans in each region. They also are responsible for monitoring land use practices in the areas under the jurisdiction of the self-governing bodies.	Support the cross-sectoral policies/legal framework supporting LDN principles implementation at regional level and be part of the coordination mechanisms (building on the UNCCD mechanism) between the national level and local decision makers as well as the coordination mechanism with farmer groups/extension.
Local small producers organizations	Main beneficiary of the project and involved in land use and management	Benefit from support and capacity building and targeted producers will be responsible for transforming land management systems, and adopting SLM/LDN.
Private sector actors	Promote sustainable value chains and foster innovative markets.	Responsible to support the enabling environment needed for the sustainability of the value chains

### 3. Gender Equality and Women's Empowerment

**Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).**

Approximately 34.8 percent of employed people are involved in agriculture, of whom almost 56 percent are women (ARMSTAT, 2015b, p. 61). Livestock production is predominant in the agricultural sector, employing about 75 percent of the agricultural labour force, and utilizing about 80 percent of agricultural land (Welton, Asatryan & Jijelava, 2013). In the structure of men's employment, the share of agriculture stands at nearly 30 percent; and in the structure of women's employment, agriculture comprises more than 40 percent, which makes women crucial participants in agricultural development.

While sex-disaggregated data on farm registration or land ownership are not available, 26.5 percent of rural households are headed by women, and in many cases this is linked with male out-migration. About 38 percent of income in rural communities in 2010 came from agriculture, with a little less than half of this generated by the sale of agricultural products. Wage employment accounted for 29 percent of rural income, 20 percent came from pensions and social payments and about nine percent came from remittances (ARMSTAT, 2015c).

Despite government efforts to achieve gender equality, rural women face several challenges including policy gaps, gender-gap earnings, gender-based segregation, gender stereotypes and rigid gender roles and decision making. The proposed project will build on FAO's recent Country Gender Assessment in Armenia.[1] Women in rural areas are extensively involved in work related to the production of agricultural goods and services for the family and household use. This work includes crop production and breeding of livestock in the households' plots and family farms; production of household goods; production of food for consumption by the family and household members and for sale; fetching water and firewood; housework; looking after children, the elderly and sick members of the families.

Many women are involved in unpaid and informal work. Unfortunately, even women themselves rarely consider this work because it is not paid and is considered part of their gender responsibilities. As such, their contribution to the agricultural production remains invisible and under-recognized. During focus groups conducted for FAO Gender Assessment, women involved in unpaid or informal work identified themselves or were identified by others as "helpers" whose work is regarded as secondary, despite the fact that it could entail longer hours in the field than men.

During project preparation, dedicated gender analysis will be carried out to develop a gender action plan for the project intervention areas. In addition, gender sensitive indicators (both at the output and outcome level) will be further strengthened. In this context the proposed project will support activities to: (i) overcome the gap between legislation, policies and their implementation, (ii) improve women's access to information, innovation and knowledge, (iii) improve women's access to new technologies and inputs, (iv) support activities to improve women's access to markets.

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[1] <http://www.fao.org/3/a-i6737e.pdf>

**Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes**

**closing gender gaps in access to and control over natural resources; Yes**

**improving women's participation and decision-making; and/or Yes**

**generating socio-economic benefits or services for women. Yes**

**Will the project's results framework or logical framework include gender-sensitive indicators?**

**Yes**

#### 4. Private sector engagement

**Will there be private sector engagement in the project?**

Yes

**Please briefly explain the rationale behind your answer.**

Private sector (namely small-holder farmers) involvement in the selected areas will be sought and encouraged to improve yields, add value to their agricultural and forestry products and link the producers to markets as well strengthen the value chains. To achieve sustainable land management, it will also be important to create stable revenues from agricultural products and to introduce a sustainable supply chain. Also during the PPG preparation local cooperatives and association will be identified and engaged in the project implementation.

In addition to this, for the implementation of the “Outcome 2.2. Key land-based value-chains strengthened and made more resilient and equitable”, value chain analysis (VCA) will be conducted. During the PIF preparation, potential values chains were identified such as NTFPs, herbal teas and oil, dairy, wild mushrooms, and timber. During the PPG preparation, in-depth analysis will be conducted to select two value chains that will be strengthened by the projects. Socio-economic and environmental sustainability will be taken into consideration in the selection of the value chains. If possible, small farmers association or cooperative will be strengthened. The project will utilize Pasture Platform to further inform and engage the private sector to build resilient production supporting LDN.

## 5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Risk	Rating	Mitigation Measure
Execution of the project as per the change in government of May/June 2018, procedures related to the management of international funds is currently under review. The new government is considering the possibility of transforming the current PIUs operating in most of the ministries into external state foundations. Until today, the government has not yet issued the mechanism to guide and regulate such transition.	Medium	The Ministry of Environment (Executing Entity) has assured that such changes will only involve the legal definition of the Project Implementation Unit and it will not change its functions or composition.
Lack of close cooperation between key institutional stakeholders, such as Environment, Agriculture, etc.	Moderate	This risk will be mitigated under Component 1 of the project that will strengthen the intersectoral coordination mechanism to enhance cooperation on LDN.
Lack of political support to LDN and SLM with focus on grasslands	Low	Political support is high in Armenia for SLM and LDN, which is demonstrated by policy reform processes initiated both in the agriculture and forestry sector. This project will provide an opportunity to strengthen the LDN framework that requires inter-sectoral coordination and to demonstrate good practices in the field.
Low technical capacity in operationalizing LDN at national and regional level halting the project's progress	Low	Capacity development for LDN will be provided under Components 1 and 2, which will mitigate the risk. Component 3 will in addition provide capacity building for replication of the LDN in other regions.
Natural changes in agro-ecological zones due to gradual changes in climate and extreme weather events	Moderate	SLM practices to be demonstrated and scaled up by the project are proven to enhance resilience to climate change, such as improved grazing rotation and an

Lack of commitment of local stakeholders in the village and community level to adopt SLM to achieve LDN	Low	Implementation will be undertaken through community-based participatory approaches that address local cultural, socio-economic and ecological concerns. The project will provide incentives to farmers to engage in various activities that target LDN, at both the capacity building, awareness, and value chains strengthening. The local stakeholders have already participated in the stakeholder consultation meeting that took place on September 12, 2019 and will be involved in all steps of PPG and implementation.
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## 6. Coordination

**Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.**

The proposed project will coordinate with a range of relevant initiatives and groups in Armenia to share experiences to avoid overlap and double-spending of resources for maximum synergistic impact. One of the main vehicles to share the technical knowledge and experiences related to pastures will be shared under the Pastures Platform, that is chaired by the Ministry of Environment (funded by GIZ).

The proposed project will be closely coordinated with the project "Forest resilience of Armenia, enhancing adaptation and rural green growth via mitigation (GCF)". Both projects have field components in Lori and Syunik regions. Ministry of Environment will be directly responsible for execution of both projects will lead coordination with national and local partners, national initiatives and ongoing projects. Ministry of Environment also hosts GEF OFP, GEF OFP, UNCCD National Focal Point, and GCF NDA, which will further secure strong coordination.

In light of the complex mix of stakeholders and the project's intent to effect change across large landscapes, Project Steering Committee (PSC) will be established and led by Ministry of Environment and be composed of representatives of key agencies and initiatives that share interests with the proposed project. The following national actors will be involved in the PSC: Environmental Project Implementation Unit, State Agency of the Ministry of Environment, Bioresources Management Agency (Ministry of Environment), Ministry of Territorial Administration and Infrastructure, Ministry of Economy (former Ministry of Agriculture), Forest Committee (Ministry of Environment), State Committee of Real Estate Cadastre, Agrarian University, Local Self-Governing Bodies, Local small producers organizations. The PSC coordination and oversight mechanism will be established under the PPG so that the key stakeholders may review and comment upon the full project design to ensure it is compatible with the implementation environment and builds upon best practices.

The project is planned to be implemented using only OPIM (Operational Partner Implementation Modality) modality through the Ministry of Environment. OP = Operational Partner (GEF Executing Agency). OPIM modality is the FAO modality to outsource project execution to external partners (both governmental and non governmental). OPA assessment will be conducted during the PPG phase and respective implementation-execution arrangements will be set up accordingly. The project will be nationally executed and the Min. of Environment will be assessed to act as Executing Agency.



## 7. Consistency with National Priorities

### Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions

Yes

**If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc**

There are different laws, governmental decrees and regulations that concern the problems of desertification. *The Land Code*, and supporting regulations, stipulates the responsible bodies for management of land resources. The system of the authorized bodies Ministry of Economy, Urban Development Committee, Ministry Environment, Ministry of Territorial Administration and Infrastructure, Ministry of Health, Ministry of Education, Science, and Culture and Sport, Cadastre Committee, Water Committee, and the scope of their authorities, as well as the list of legal acts ensuring the implementation of the Land Code were established. *The Forest Code* controls the use and protection of forest land. There are several regulations related to creating the national framework on land degradation and land-related issues. Hence, the proposed project is in line and is supportive of the national strategies and priorities. In addition, the proposed project directly supports implementation of Armenia's commitments to the UNCCD, and is strongly aligned with the priorities established under other relevant multilateral environmental agreements (MEAs) as follows:

#### UNCCD LDN

The proposed project is in line with the priorities established under Armenia's LDN Target Setting Report, that identifies the national goal as *"By the year 2040, the carbon stock lost between 2000 and 2010 will be recover and increase by 2,8% in relation to present"*. The report further identifies four targets to achieve the goal, with the project directly responding to the two of them:

Stop deforestation and improve forest management in 100% of national territory by 2050. Currently, the country started the work on the elaboration of new management plan for all forestry enterprises. In these plans "High value forests" should be marked out for special conservation, fully taking into account the possible consequences of global climate change and measures will be enforced towards sustainable use of forest resources. Priority measures: Afforestation, reforestation and improving of forest stands. Investment required: US\$70 million.

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Stop overgrazing and improve grassland management in 100% of national territory by 2040. Priority measures: 1) elaboration of new grazing norms and management plans for pastureland, 2) development of management plans for use of grasslands for fodder conservation and grazing. Investment required: US\$20 million.

#### CBD National Report

Strategic Direction 2: Enhancement of biodiversity and ecosystem conservation and restoration of degraded habitats

National Target: To enhance conservation of biodiversity habitats with minimizing their degradation.

Strategic Direction 4: Elimination of the main causes of biodiversity loss through regulation of intersectoral relations and public awareness raising

National Target: To take steps aimed at introduction of mechanisms in intersectoral relations, which will exclude disturbance of ecological stability due to use of natural resources.

Strategic Direction 5 Enhancement of scientific research, knowledge management and capacity building in the field of biodiversity conservation and sustainable use of natural resources.

## UNFCCC NDC

Land use and Forestry (afforestation, forest protection, carbon storage in soil) is among the main sectors included in the mitigation contribution. This involves ensuring “organic carbon conservation, accumulation and storage in all categories of lands through comprehensive measures.” Water resource management and agriculture are priority sectors for the adaptation activities.

## UNFCCC National Communications (NC)

Grasslands/pastures feature prominently in NC-3. Climate change affects natural pastures and grasslands. The majority of grazing lands in Armenia have deteriorated over the last two decades as a result of irregular grazing, and a lack of control and improvement measures. Pastures around settlements were subjected to intense overgrazing, the while productivity of remote pastures decreased as a result of underuse. The forecasted affects of climate change will have a further adverse impact on natural grasslands and grazing land. As a result of shifts in natural zones, the areas of more valuable alpine and sub-alpine grazing land will be reduced by 19 and 22% respectively, while semi-desert and meadow-steppe areas will increase by 17%, and grazing land with relatively low productivity by 23%.

Climate change also impact livestock production directly (through temperature variations on animal health) and indirectly (spread of diseases, pests, parasites, and pasture productivity decline). Climate change-related changes to natural pasture could lead to serious fluctuations in the volume of livestock products. As a result of structural changes in natural zones, milk, meat and wool production will fall. To mitigate consequences of climate change for livestock in Armenia, the preventive measures should be developed and implemented.

Given that pastures in Armenia are under disproportional use, it will be possible to offset expected losses through increased livestock populations and fodder-crop production by implementing of activities designed to improving balanced use of pasture. In summary, the project responds to several of Armenia's commitments to the MEAs and will thus contribute to synergies in implementation of the SDGs and Agenda 2030, especially for SDGs 2, 13 and 15.

## 8. Knowledge Management

**Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.**

The project will analyse lessons learned from previous LDN experiences in Armenia and elsewhere and develop a number of knowledge management products. Lessons learned from other LDN projects where FAO plays an IA role will be widely shared. Support will be provided to enhance communication and visibility of LDN at the national level through support to dissemination of best practices and lessons learnt under Component 3 and field level through support under Component 2 to demonstrations of SLM related to LDN. At the local level, community exchange visits will be supported through rural advisory services.

In addition, the communication strategy developed under Component 2 will use existing knowledge sharing platforms and technical tools, such as LADA. WOCAT, the UNCCD preferred database for SLM best practices reporting, will be used to share successful SLM measures at all levels.

Finally, additional in-depth consultations will take place during the PPG to examine and evaluate: (i) successful knowledge management experiences in other projects, (ii) obtain current feedback from stakeholder groups and possible beneficiaries groups (iii) determine how to best link the knowledge generated by other institutions and projects to the findings of this proposal.

**Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).**

<b>Name</b>	<b>Position</b>	<b>Ministry</b>	<b>Date</b>
Erik Grigoryan	Minister	Ministry of Environment	9/26/2019
Erik Grigoryan	Minister	Ministry of Environment	10/28/2019

**ANNEX A: Project Map and Geographic Coordinates**

Please provide geo-referenced information and map where the project intervention takes place

Please refer to the map in Annex A of the attached PIF in Word version of the PIF

Geo-references: Lori, Siunik regions



