



# GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

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## PART I: PROJECT INFORMATION

Project Title: Sustainable Land Management for Increased Productivity in Armenia (SLMIP)			
Country(ies):	Armenia	GEF Project ID: <sup>1</sup>	8005
GEF Agency(ies):	IFAD	GEF Agency Project ID:	
Other Executing Partner(s):	Rural Areas Economic Development Programme	Submission Date:	17 Nov 2015
GEF Focal Area (s):	Land Degradation	Project Duration (Months)	72
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of Parent Program	[if applicable]	Agency Fee (\$)	374,062.50

### A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES<sup>2</sup>

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Co-financing
LD-1 Program 2	Functionality and cover of agro-ecosystems maintained	GEFTF	2,043,750	8,514,500
LD-3 Program 4	Increased investments in integrated landscape management	GEFTF	1,893,750	20,958,500
<b>Total project costs</b>			3,937,500	29,473,000

### B. PROJECT DESCRIPTION SUMMARY

Project Objective: to enhance the overall resilience of rural communities living in risk-prone areas of Armenia					
Project Components/ Programs	Financing Type <sup>3</sup>	Project Outcomes	Project Outputs	Trust Fund	(in \$)
					GEF Project Financing
Component 1 – Investments in sustainable farming systems benefiting from rehabilitated irrigation infrastructure.	Inv	Outcome 1.1. Investments in sustainable fruit tree farming systems for increased productivity in marginal communal lands.  Outcome 1.2. Efficient land and water management practices for crop diversification and food security adopted by women groups.	8,000 farmers increase productivity through improved irrigation and sustainable farming technologies.  750 ha increase in agroforestry areas with diversified fruit trees.  Proportional increase in inputs efficiency by reduction of: (a) cost of inputs; (b) water consumption; (c) energy costs; and (d) post-harvest losses by at least 50% of beneficiaries.  At least 30% of women-headed households have	GEFTF	1,600,000  5,377,000

<sup>1</sup> Project ID number remains the same as the assigned PIF number.

<sup>2</sup> When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

<sup>3</sup> Financing type can be either investment or technical assistance.

			increased 50% yields from diversified high value vegetable crops. Annual gross revenue of targeted women groups has increased by 50%.			
Component 2 – Community-led land degradation prevention through landscape restoration interventions.	Inv	Outcome 2.1. Ecosystem services supporting agriculture production are restored in the target areas.  Outcome 2.2. Complementary value chain of high quality by-products resulting from landscape restoration developed by farmers' groups.	Increase of fertility and ecosystem services (pollinators, water, vegetation covers) of about 880 ha of natural ecosystems in the target areas.  Positive change in the ecosystem vulnerability index (e.g. N° of hectares with reduced erosion based on RUSLE).  Wild and sustainable product value chains (e.g. honey and bee products) increase their productivity by at least 25%.  Positive change in income generated by production and sales of wild products (at least 20%).	GEFTF	1,800,000	18,933,000
Component 3 – Enabling environment to enhance the capacity of smallholder farmers against land degradation.	TA	Outcome 3.1. The capacity of key practitioners to adopt sustainable land management practices and technologies is upgraded.  Outcome 3.2. Policy processes for SLM in Armenia are enhanced.	Demand for advisory assistance on SLM farming systems and technologies in targeted zones has increased at least 50%.  50% of women and young unemployed cooperatives supported by the project become autonomous.  Number of implementation decrees issued in the field of SLM and NRM.	GEFTF	350,000	1,112,000
<b>Subtotal</b>					3,750,000	25,422,000
<b>Project Management Cost (PMC)<sup>4</sup></b>			GEFTF		187,500	4,051,000
<b>Total project costs</b>					3,937,500	29,473,000

<sup>4</sup> For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

**C. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE**

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount (\$)
GEF Agency	IFAD	Loans	5,916,400
GEF Agency	IFAD	Grants	350,000
Donor Agency	OFID	Loans	23,206,600
		(select)	
<b>Total Co-financing</b>			<b>29,473,000</b>

**D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS**

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee <sup>a)</sup> (b) <sup>2</sup>	Total (c)=a+b
IFAD	GEF TF	ARMENIA	LAND DEGRADATION	(select as applicable)	3,937,500	374,062.5	4,311,562.5
							0
							0
							0
							0
							0
							0
							0
							0
<b>Total Grant Resources</b>					<b>3,937,500</b>	<b>374,062.5</b>	<b>4,311,562.5</b>

a ) Refer to the Fee Policy for GEF Partner Agencies

## E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS<sup>5</sup>

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1.Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	<i>1,630 hectares</i>
2.Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>3,200 hectares</i>
3.Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	<i>Number of freshwater basins</i>
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	<i>Percent of fisheries, by volume</i>
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO <sub>2e</sub> mitigated (include both direct and indirect)	metric tons
5.Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	<i>metric tons</i>
	Reduction of 1000 tons of Mercury	<i>metric tons</i>
	Phase-out of 303.44 tons of ODP (HCFC)	<i>ODP tons</i>
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	<i>Number of Countries:</i>
	Functional environmental information systems are established to support decision-making in at least 10 countries	<i>Number of Countries:</i>

### DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT?

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

<sup>5</sup> Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

## PART II: PROJECT JUSTIFICATION

### A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF<sup>6</sup>

A.1. *Project Description.* Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area<sup>7</sup> strategies, with a brief description of expected outcomes and components of the project, 4) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing; 5) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

#### 1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed

Agriculture is a key development sector in Armenia that plays a central role in economic and social terms, and shares a unique place in the country's food security. The lion's share of revenues of the rural population comes from agriculture products and hired labour, hence poverty in rural areas is largely contingent on agriculture development. The Armenia Development Strategy for 2014-2025<sup>8</sup> projects a significant increase of the agriculture GDP from 889.2 billion drams in 2012 to 2,046.8 billion drams in 2025, with an added value of the sector of 3.5□4 % annually.

The governmental projections for 2025 for the agriculture sector may be jeopardized by the combined effect of irrational use of land resources and climate change impacts, which are responsible for desertification processes and various levels of land degradation affecting 80% of agriculture land plots. Climate change projections in Armenia show gradually increasing aridity because of reduced rainfall, higher temperatures and higher evapotranspiration – soil humidity is expected to decrease by 10-30% by 2030. Increased aridity will thus have negative effects on agriculture yields, with a predicted 8-14% decrease for agriculture crops and 7-14 decrease for pastures by 2030. Although irrigated crops yields could increase in spite of climate change, the reduced availability of water could be insufficient to satisfy crop water needs. Higher rates of evapotranspiration will also increase salinization of irrigated farmland that will considerably aggravate the negative impacts of climate change.

**Table . Major environmental land degradation factors affecting the agriculture sector in Armenia**

Factor	Description
Climate Change	Increased frequency and intensity of drought events combined with intense hot winds (especially in Ararat valley, Syunik, Vayots Dzor). Increased aridity due to lower rainfall, higher temperatures and evaporation.
Landslide phenomena	Particularly developed in the zone of medium altitude mountains
Mudflows	More than half of the Republic's area is mudflow-generating, particularly occurring in the medium-altitude mountain zone.
Floods	Increase of frequency and intensity of floods due to torrential precipitation regimes and melting, resulting in soil waterlogging. It is widespread in the territory of the Republic, mainly in Ararat and Shirak valleys, as well as in Syunik, Vayots Dzor marzes. Soil salinization is a direct consequence, especially in the Ararat valley, affecting some 10% of its area.
Soil erosion	Soil erosion is particularly severe in the meadow and steppe zones where steep slopes are intensively farmed, shelterbelts do not exist, and extensive irrigation is practiced in an unsustainable way.
Soil contamination	Agricultural production is one of the major factors of environmental pollution. Use of toxic chemicals (herbicides, fungicides, insecticides, seed disinfectants, etc.) and fertilizers in inadequate sizes cause contamination of arable lands.
Uncontrolled grazing	Bad grazing practices had serious impact on biological diversity, and promoting erosion processes.
Deforestation	Excessive deforestation for timber (mainly in the 1930-1950s) and energy (since 1991 due to economic and energy crisis), which caused elimination of forest-covered areas by disrupting the ecological balance in the environment. Loss of ability for natural regeneration, decrease of productivity and biological diversity, activation of erosion, disruption of hydrological regime.

<sup>6</sup> For questions A.1 –A.7 in Part II, if there are no changes since PIF , no need to respond, please enter “NA” after the respective question.

<sup>7</sup> For biodiversity projects, in addition to explaining the project’s consistency with the biodiversity focal area strategy, objectives and programs, please also describe which Aichi Target(s) the project will directly contribute to achieving..

<sup>8</sup> RA Government Decree #442-N, on 27 March 2014.

In recent decades, the higher intensity and frequency of extreme hydro-meteorological phenomena in Armenia has exacerbated land degradation problems, such as water and wind erosion, landslides, mudflows, forest fires, and forest and agriculture pests and diseases. The target marzes (Vayots Dzor, Syunik in the south; Ararat in the central-west) are significantly affected by the following extreme weather events: seasonal flooding (mainly in the southern and northern marzes), drought events combined with the drying effect of the southern winds, hailstorms, and early frost, with major impact in the Ararat semi-desert valley. These marzes share a number of anthropogenic problems that make them highly vulnerable to land degradation, of which poor farming practices in too fragmented land plots, deterioration of water resources - including salinization in the Ararat marz - and water erosion due to obsolete irrigation infrastructure and inefficient irrigation, and unsustainable grazing and forest management are to be highlighted. As a result, more than 50% of the territory in the target marzes has eroded soils (except for Lori, with 35% of eroded soils), more than 50% of the territories are prone to mudflows (up to 100% in Vayots Dzor), and significant land surface is affected by landslides (from 144 km in Ararat, up to about 240 km<sup>2</sup> in Vayots Dzor, and Syunik).

Therefore, major efforts in the modernization and higher efficiency of the agriculture sector will not succeed if land conservation and environmental risk-reduction measures are not well integrated. The GEF project aims to provide such additionality to the baseline IRFSP project that addresses rural poverty alleviation in selected regions of Armenia through: (i) irrigation infrastructure rehabilitation for improved agricultural production; (ii) increased productivity of small scale farming, post production processes and transition by smallholders to growing high value cash crops; (iii) creation of linkages between agro-processing facilities and poor rural smallholders to enhance their improved access to domestic and international markets and employment opportunities along the value chain; and (iv) upgrading food safety, the quality of marketable products, and family health by improving household water supplies.

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

As part of the recent comprehensive Armenia Development Strategy 2012-2025 (ADS), the Government of Armenia acknowledged that agriculture and rural development plays a key role in economic diversification, job creation, and poverty reduction. The Strategy focus on sustainable agriculture, by promoting soil conservation measures, improving water collection and irrigation methods, limiting the use of fertilizers and other agro-chemicals, and improving pasture management. The Strategy also aims to forecast and mitigate the effects of natural disasters, as well as implement measures to mitigate the impacts of climate change.

A large share of public investments in the irrigation sector has been therefore geared to the rehabilitation of the main structures in economically viable, non-energy-intensive schemes. The expansion of irrigated land areas and higher efficiency of the systems would be at the core of the investment policy in irrigation until 2025. Investments in irrigation carried out under completed IFAD Programmes gave a positive contribution to increasing agricultural productivity<sup>9</sup> mainly in terms of utilization of agricultural land, higher yields and to some extent shifts from low value field crops to cultivation of high value crops. However, the shifts of cropping patterns need to be supported by extension and awareness raising focusing on: (i) the potential opportunities for the cultivation of high value crops specific to each agro-ecological zone; and (ii) access to credit for farm development.<sup>10</sup> This is particularly relevant to maximize the benefits arising from the expansion of the irrigated farmlands, where low value annual field crops would be otherwise prevailing, as shown by the FMAP PCR interim results.

IFAD played a key role in the establishment and the development of the appropriate legal framework for WUAs in Armenia, initiated under the Irrigation Rehabilitation Project (IRP)<sup>11</sup> and continued with the subsequent North-West Agricultural Service Project (NWASP) and Agricultural Service Project (ASP), completed in 2006. WUA establishment and capacity building has been taken over up-scaled under successive projects in the irrigation sector financed by the World Bank. While formally well established, and showing progressively improved performance in service delivery, the WUAs need strengthening, both in the technical capacity of their executive bodies and in their governance in order to be fully in line with the IFAD's Participatory Water Management principles. These are fully acknowledged as aspects requiring further actions by the SG and have been addressed in the design of the latest WB project in the irrigation sector.

Following the construction or rehabilitation of primary and secondary irrigation facilities, the uptake of benefits from smallholders have proven slower than anticipated. Extending the irrigation distribution system up to field edge has proven a key requirement for the development of upgraded orchards under the IFAD supported RACP "Fruit Armenia" Component. An immediate uptake of irrigation and increased yields (+30%) are recorded in the

<sup>9</sup> RAEDP Project Performance Assessment IFAD Independent Office of Evaluation June 2012.

<sup>10</sup> See also RAEDP Programme Completion Report, October 2010.

<sup>11</sup> The IRP was the first IFAD-funded operation in the country back in 1995.

backyards, which are an important element of food security for the poor households and to some extent contribute to increased family income.<sup>12</sup>

A new IFAD supported programme called the *Infrastructure and Rural Finance Support Programme* (IRFSP) was requested by the Government of Armenia (GOA) to assist with continuing to resolve the widespread occurrence of poverty in the rural areas. The Government indicated a strong interest for IFAD to help design the Programme as a potential IFAD/OFID co-financed operation, and include in this new Programme successful components of previous IFAD/OFID operations in Armenia i.e. rural infrastructure improvement and the provision of rural finance. The request was for the Programme to be designed to support smallholders as well as small and medium size enterprises (SMEs) at the production and processing levels of agricultural value chains. Armenia has already demonstrated a good capacity to implement development activities with IFAD/OFID in these areas in previous projects through the experienced existing Rural Areas Economic Development Programmes Implementation Unit (RAED-PIU) (for infrastructure development and overall management) and for rural finance through two independent units already supported by IFAD from their start and fully operational: the Rural Finance Facility (RFF) and the Fund for Rural Economic Development in Armenia (FREDA). The current good performance of these three organizations gives confidence that the capacity is in place to launch the new IRFSP programme.

The main target group for IRFSP will typically be poor farmers and rural households that cultivate crops under mainly rainfed conditions within the command area of obsolete or inefficient previously state run irrigation schemes. The main current coping strategies of this group include migration and a focus on subsistence agriculture activities. Agricultural activities are constrained by the lack of access to irrigation water, rural financial services, new technological packages and inputs, as well as production and business related skills. Targeting would give specific consideration to vulnerable women-headed households and youth by mobilizing awareness and support activities for these groups to enable them to take advantage of opportunities provided by the Programme.

The IRFSP Programme would be implemented over six years, starting in 2015. Given the small nature of proposed tertiary irrigation infrastructure works and their dispersed locations, a demand based programmatic approach for infrastructure would be adopted for this component. The rural finance components would also be demand based. Investments would in all cases be subject to fulfilling selection criteria that were agreed between IFAD and GoA during Final Design.

The overall objective of the IRFSP Programme is to improve the economic and social status of the population in selected rural areas where poverty is prevalent, by generating income growth and sustainable employment opportunities through strengthening the agricultural production systems and the forward and backward linkages of value chains for cash crops. The Programme has four components: (i) Rural Finance; (ii) Rural Water Infrastructure; (iii) Farmer Awareness and Support; (iv) Programme Management. The Programme, with an IFAD funding of a loan of USD 11 million and a grant of USD 350,000, as well as an OFID funding of a loan of USD 25 million, would provide improved economic opportunities and an improved standard of living for some 16,000 households or around 67,000 people (about 7% of the rural population of Armenia, and an estimated 21% of Armenia's rural poor).

### 3) the proposed alternative scenario, GEF focal area<sup>13</sup> strategies, with a brief description of expected outcomes and components of the project

The Project was developed in accordance with GEF eligibility criteria and respects the principle of national ownership, having been developed in consultation with national stakeholders, and taking into account all relevant recent studies and reports available on Armenia's desertification, land degradation, and climate change adaptation needs. In addition, the project was designed to fully address the priorities for the agriculture sector identified by the Government in several governmental reports (ADS, NPCD, NFP, TNC) and has been developed in such a way as to ensure sustainability and replicability beyond project completion.

The Project is consistent and responds to the GEF Land Degradation Focal Area (LD FA) supporting efforts to combat land and forest degradation in rural production landscapes through sustainable land management (SLM) investments. In line with the LD FA, the Project adopts a landscape approach for natural resource management and vegetative cover restoration in the watersheds where the IRFSP baseline project will support the rehabilitation of irrigation schemes and crop production. The Project also aims to deliver multiple global environmental benefits, particularly in the context of sustaining the flow of ecosystem services, climate-resilient agriculture management systems, integrated water management, and enhancing agro-biodiversity in the productive landscapes. The Project is consistent with the LD FA priorities to enhance food security and ensure gender mainstreaming, recognizing the higher vulnerability of rural women – namely women-headed households – to environmental risks, and the differential adaptation strategies employed by women and men. The project will support enabling conditions that

<sup>12</sup> The FMAP Supervision Mission Aide Memoire (Sept 2011) reports a 10% increase in household incomes from these plots.

<sup>13</sup> For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

overcome disparities between women and men in the project areas, and point out gender responses that are already emerging at the communities, drawing on existing good practices and examples that could be scaled up and replicated to enable more effective, relevant, equitable and empowering practices.

The Project responds to the following LD FA objectives: (i) LD-1 (Maintain and improve flow of agro-ecosystem services to sustain food production and livelihoods), promoting climate-resilient SLM options to reduce soil erosion rates, and improve habitats and agro-biodiversity in the production landscapes; (ii) LD-3 (Reduce pressures on natural resources by managing competing land uses in broader landscapes), through increased investments in integrated watershed management and restoration approaches adopted by water users associations (WUAs), municipalities and local land users, which will also facilitate the achievement of multiple global benefits within the Biodiversity, Climate Change and Sustainable Forest Management focal areas.

The GEFTF project "Sustainable Land Management for Increased Productivity in Armenia" (SLMIP) **overall objective** of the SLMIP project is "*to enhance the overall resilience of rural communities living in risk-prone areas of Armenia*", while the **specific objective** is "*to increase income and assets generated by smallholder farmers through investments in sustainable land management systems and technologies*".

The GEFTF strategy will be based on the following intervention lines:

**Component 1 – Investments in sustainable farming systems and technologies.** This component aims to support investments in sustainable farming approaches in line with the priorities of the Armenian government to mitigate land degradation and the impact of climate-risks to agriculture development. The introduction of suitable agronomic systems for fruit tree production and crop diversification will help compensate the predicted increase of water deficit and evaporation due to CC predictions, favouring better soil moisture storage and retention capacity, and optimal use of irrigation water, while ensuring a more stable and improved production, and preventing environmental problems such as soil erosion and salinization. The GEFTF will be complementary to IRFSP's efforts on the rehabilitation of tertiary irrigation distribution networks to enhance water distribution to upgrade productivity of irrigated smallholder plots and expand irrigated areas.

**Outcome 1.1** ("*Investments in sustainable fruit tree farming systems for increased productivity in communal marginal lands*") will provide support the target municipalities for the conversion of degraded communal agriculture land into sustainably managed fruit tree plantations, with the objective to regain healthy soil conditions and productivity in about 750 ha. The target municipalities will receive a maximum of USD 125,000 for the fruit tree planting and management operations that will need to follow SLM guidelines. During the first half of year 1, the project implementation unit (PIU) will support local beneficiaries in a community resource GIS mapping exercise, which will be an integral part of the baseline study. This participatory exercise will look at the whole landscape units within the target municipalities to map the different land uses, understand the root-causes of land degradation, learn about local perceptions and coping strategies to environmental-risks, and identify vulnerable sites affected by environmental problems. This participatory process will involve the organization of a series of workshops in each municipality, involving all concerned local actors and external experts, to debate about climate-risk reduction and land degradation mitigation options, and, select suitable measures to increase the landscape resilience to environmental risks. This will involve the identification and mapping the land uses which are most appropriate for each site, and the type of interventions – e.g. agro-forestry management, ecological restoration, biodiversity conservation – that help increase the entire landscape resilience to the environmental risks. The PIU will hire a an international expert with solid demonstrated background on soil and water conservation agronomic systems and technologies applicable to fruit tree agro-forestry systems. The expert will identify and assess best practices from Armenia and elsewhere applicable to the project context, and provide support in decision-making, training and monitoring actions. The PIU will establish a collaboration framework with a service provider (e.g. a national NGO with demonstrated solid experience in sustainable farming systems) to provide the necessary technical support to the target municipalities in developing and implementing fruit tree planting and management plans (e.g. the selection of suitable fruit tree cultivars, guidance for soil preparation, planting, management and maintenance operations in the eligible degraded agriculture lands). The provision of sustainable fruit tree planting and management plans will be conditional for accessing grant funding.

**Outcome 1.2** ("*Efficient land and water management practices for crop diversification and food security adopted by women groups*") will provide start-up packages (20% contribution from grant beneficiaries) of about USD 3,000 each targeting women groups willing to diversify crop production in their farmland plots, making use of sustainable farming technologies, in line with the priorities of the Armenian government to mitigate land degradation and the impact of climate-risks to agriculture development. As part of the participatory analysis described in Outcome 1.1, the PIU will make a diagnosis of suitable sustainable farming systems and production opportunities addressing the food security and income generating needs of women groups in the target areas. Grant funding will cover start-up packages including, for example, soil analysis, land preparation, efficient irrigation and other farming equipment, plant material, etc. The PIU will define selection criteria as part of the Project Implementation Manual, addressing:

(i) household selection criteria such as willingness to belong to an interest/women's group if not already a member, interest in participating in SLM and climate-resilient farming activities, willingness to bring a financial or in kind contribution, readiness to attend training activities, etc; (ii) checklist for expenditures eligibility, in line with the Governmental priorities and experts' assessment about SLM and climate-resilient farming systems suitable for the environmental and social conditions of the target areas.

**Component 2 – Community-led land degradation prevention through landscape restoration interventions.** This component will enable beneficiaries to deal directly with ecosystem-based approaches for land degradation reduction in the target areas by restoring the ecological integrity and the overall quality of the natural capital (e.g. soil fertility, soil organic matter, soil water content, pollination services, healthy natural vegetation cover) of forests and pastures so as to enhance ecosystem services supporting agriculture production in the target agro-landscapes, and to diversify income opportunities based on the by-products enhanced by the restoration interventions (e.g. improved vegetation with higher melliflora diversity for beekeeping; planting of multipurpose plant species with economic value for edible and medicinal uses).

**Outcome 2.1** ("Ecosystem services supporting agriculture production are restored in the target areas"). Under the participatory GIS mapping exercise described in Outcome 1.1, vulnerable natural sites, affected by land degradation and posing problems to the provision of ecosystem services supporting agriculture production and natural resource management in the rural landscapes of the target municipalities, will be identified and mapped. A multi-stakeholder consultation process, involving project beneficiaries and external experts, will take place in the whole territory of the target municipalities – the landscape context - resulting in the identification of where and how restoration actions should be implemented, the analysis of the restoration feasibility, the selection of the native plant species to be part of the restoration works, the restoration methods, and the monitoring and evaluation system. The project will provide financial support to the target municipalities and the WUAs in charge of the irrigation systems in the target areas for the implementation and maintenance of the restoration works. It is estimated that about 880 ha will be restored in the target municipalities in total. The Project will provide an average of USD 1,250 per ha of restored land that will be matched by the municipalities and WUAs to cover labour costs. Grant funding will cover packages including the necessary seedlings and seeds and the land preparation equipment and inputs. The provision of support will be conditional to the preparation of restoration plans by the municipalities and WUAs, following the criteria specified in the project implementation manual (PIM).

**Outcome 2.2** ("Complementary value chain of high quality by-products resulting from landscape restoration developed by farmers' groups"). In the framework of the landscape mapping and community consultation process described in Outcome 2.1, the target municipalities and the local population groups will have identified and prioritized a number of economic opportunities resulting from the planting, management and conservation of multipurpose native species. Although consultations during project formulation have already identified beekeeping as a priority economic activity, especially for young unemployed, other products such as wild fruits and herbs may also arise. The PIU will produce a directory and a GIS map of potential products and producers in the target areas, and will hire an expert, following the same procurement procedures as the established in the IRFSP baseline project, to undertake market analyses identifying potential market opportunities, mapping the market networks, understanding the relationships between actors, etc. The PIU will hire another ecologist with knowledge about sustainable NRM, in order to assess the availability of wild products in the natural ecosystems within the target municipalities, and develop management guidelines for the sustainable harvesting (e.g. harvesting techniques, collection period, volumes to be harvested) of the target products. The PIU together with the target municipalities will organize a number of information events locally to raise awareness about the potential economic opportunities derived from the landscape restoration actions and the funding opportunities provided by the GEFTF project to support a number of demonstration actions supporting the establishment or strengthening of local associations or cooperatives willing to produce and market the selected wild products. The GEFTF project will make available grants up to USD 12,000 (an average of 75 grants in total, distributed among target municipalities) to cover the necessary investments that local associations or cooperatives may need for the production, processing and marketing of high quality honey and other selected products. The PIU together with the target municipalities will establish selection criteria to become eligible for the grants. The PIU will hire a service provider among those national NGOs and other organizations with demonstrated solid experience on supporting the institutional development and production, processing and marketing operations of local agriculture cooperatives and associations with a gender and youth focus.

**Component 3 – Enabling environment to enhance the capacity of smallholder farmers against land degradation.** This component will build the capacity of individual farmers, farmer associations or cooperatives, water user associations, civil servants and other local stakeholders to adopt sustainable farming systems and technologies (e.g. EIT, CA, OA, IPM), produce and implement ecological restoration plans, and develop sustainable value chains for high quality wild products, such as honey, fruits and herbs, that incorporate soil and water conservation, and climate-risks reduction needs. Successful demonstrations and project results from component 1 and 2 will be

translated into policy instruments to allow politicians formulate effective policies and adopt the financial mechanisms needed to extend the nationwide adoption of sustainable land management in Armenia.

**Outcome 3.1.** (*"The capacity of key practitioners to adopt sustainable land management practices and technologies is upgraded"*). This outcome will build the adaptive capacity of key civil servants and agriculture practitioners – individual farmers, members of farmer's associations and cooperatives, extension agents - at the municipal and marz level to mainstream sustainable farming systems and technologies, ecosystem-based landscape restoration, and resilient value chain development in integrated rural development in the target areas. The capacity development component will be implemented through a progressive process of knowledge generation and sharing, starting with a baseline inventory of successful experiences related to sustainable farming systems, ecosystem-based landscape restoration, and the economic value and business opportunities for wild products (e.g. bee products, wild fruits and herbs) in Armenia and elsewhere. The learning process will include three consecutive stages: (i) comprehensive inventory, assessment and critical analysis of existing knowledge; (ii) learning from available local/international experience and from field demonstration actions implemented by the GEFTF Project; (iii) elaboration of findings and recommendations addressing prospects for sustainable farming practices and landscape restoration in Armenia in the long-term. The capacity building programme will be carried out according to the principle of "learning-by-doing", through the implementation of theoretical and practical training modules that will be demonstrated in the field together with the project beneficiaries, during the implementation of components 1 and 2. The same service providers and national/international experts hired by the PIU for these components will have the responsibility to design and implement capacity building programmes. Specific training will target women and youth needs.

**Outcome 3.2.** (*"Policy processes for SLM in Armenia are enhanced"*). The PIU will develop a collaboration framework with the Armenian National Agrarian University (ANAU) and the Environmental Research and Management Centre (ERCM) to undertake several policy analyses. The policy review will not only look at specific legal rules supporting agriculture development, farming, livestock grazing and forestry approaches, but also at the coherence with existing legislation on cross-cutting policy issues such as combating desertification, climate change, water use, soil protection, climate-resilient agronomic practices, land tenure, landscape restoration, forestry, etc. The results of this review will be presented at a national seminar on supportive policies for sustainable agriculture and NRM, and the enhancement of ecosystem services in the face of preventing land degradation and climate-risks and improving biodiversity in the Armenian rural landscapes. The seminar will be organized under the patronage of the MoA and the MNP, involving policy-makers, civil servants, research/academia, extension organizations, farmer organizations, private sector, and NGOs. The debate and inputs generated during the national seminar will be gathered by the PIU, and used to prepare draft policy papers, which will include a set of proposed recommendations to boost sustainable farming systems, drive rural development and planning, and support small-scale private investments in by-products from ecological restoration actions through the set up of a conductive policy framework, sustainable harvesting regulations, and market incentives. Comments and inputs of the civil society, the private sector and any other concerned stakeholder will be gathered to produce a final version of the papers.

The government of Armenia has already started with different activities to promote agro-insurance on a pilot basis. On behalf of the German Government ("KfW") has and is currently preparing and implementing several projects in different countries, included Armenia. The German Government, who has built up through KfW Entwicklungsbank valuable know-How in agro-insurance, is supporting the government in developing appropriate agro-insurance schemes in Armenia to mitigate climate related risks, and has made available financing for the feasibility study and piloting activities in the form of a grant to the Central Bank of Armenia. Therefore, the GEF project will not design anymore an index-based insurance system, as foreseen in the PIF, but will seek collaboration with KWF to support the policy review as part of the feasibility studies.

**Component 4 – Project management.** The overall responsibility for planning, management and implementation of the Programme would rest with the existing IFAD Programme Implementation Unit (RAED PIU), which has been responsible for the management and implementation of all previous IFAD-financed projects and programmes in Armenia. This PIU has experienced and competent staff and is fully capable of managing and implementing the fully embedded IRFSP baseline and GEFTF projects with minor staff increases to improve capacity mainly in the engineering department. As with previous IFAD programmes the PIU will operate under the authority of the Prime Minister's office through a Programme Steering Committee set up for the purposes of the Programme. The GEFTF Project will hire a Project Coordinator who will be part of the PIU, and will have assigned project management responsibility to ensure the quality of the GEFTF interventions, and the adequate integration with the IRFSP baseline Project. The Project Coordinator will be hired based on a competitive call, and final the selection in consultation with the Ministry of Nature Protection will be done by RAED PIU Director, based on IFAD NO Objection. The Project Coordinator should have a minimum 5 years agro ecological grant based proven successful national project coordination work experience or a minimum of 10 years of experience mentioned in the TOR. In addition to the provision of staff and operating costs for the project, specific provision has been made for financing a baseline survey, interim and final impact evaluation surveys, workshops and staff training in specialised areas related to

overall project management. The project will adopt the GEO-Result Based Management and Monitoring System developed by IFAD. The system merges key element of PDRs (LFM, COSTAB, PIM, WP) together with a set of dedicated geographical elements (GPS coordinates, maps, charts, satellite pictures) in order to ensure and enhance: (i) SMART Design Process; (ii) Improved supervision; (iii) Advanced no objection process<sup>14</sup>; (iv) Sound SMART M&E process; (v) Improved communication and coordination; (vi) Tailored impact evaluation. The PMU staff will be trained by IFAD on System use and management.

#### 4) incremental/additional cost reasoning

The baseline IRFSP project focus on: (i) the rehabilitation of tertiary irrigation infrastructure to make irrigation water accessible at the farm level; (ii) the expansion of fruit trees, vineyards and vegetable production; (ii) the enhanced access to rural finance for local producers and small entrepreneurs to increase their capacity on production, post-harvesting, processing and marketing. GEF funding represents an opportunity to broaden the scope of the rural development objectives pursued through the baseline Infrastructure and Rural Finance Support Programme (IRFSP) in light of the existing land degradation on the already fragile agro-ecosystems, soil and water conditions, and irrigation infrastructure, and the predicted exacerbation of extreme weather events due to climate change. Without the GEF funding, the baseline intervention will not tackle the root causes of the main environmental constraints facing agriculture development in Armenia, reducing the likelihood to reduce food security risks in the long-term.

The GEF project is fully blended with the IRFSP baseline project, in order to integrate soil and water conservation measures in the development of the targeted crops and rangelands, and restore the landscape resilience to land degradation and climate-risks of the agro-ecosystems and the rural population in the project areas.

During the six years of implementation (2016-2021), the IRFSP project will cover rural areas in a number of marzes with different agro-climatic zones. Building on the activities carried out by the baseline, the GEF will cover the additional costs associated with mitigating land degradation through landscape restoration measures and the adoption of on-farm efficient irrigation and soil/water conservation farming systems and technologies. This will enhance the ecosystem services of the landscape units or territories in the target municipalities, such as: (i) the improvement of agriculture productivity in terms of high value and more diversified crops, (ii) hydrological regulation for soil water conservation, soil erosion control, and the effective and long-term functionality of the rehabilitated irrigation schemes, (iii) biodiversity conservation, (iv) and the availability of provisioning ecosystem goods, such as bee products, wild fruit and herbs to help diversify income generating opportunities for vulnerable population groups, mainly women and youth. The GEF project will be fully blended to the IRFSP baseline programme to secure a synergistic and complementarily approach. The suggested pilot developments under the GEF would become models for replication and scaling-up across regions in Armenia.

Consequently, the investment made by the GEF project will provide additional support to help mainstream measures to combat land degradation and desertification into the IFAD baseline and the contributions to be made by the Government of Armenia and other partners. This will expand the impact of the project and enhance the long-term sustainability of the results. Activities under the GEF Project will be complementary and synergistic to those under IRFSP. To enhance project activities, PIU may enhance the establishment of agriculture cooperatives and strengthen the rural development centres.

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<sup>14</sup> If properly fed with GPS coordinates, the system allows a deep understanding of proposed activities according to the areas where the project intends to work (i.e. afforestation, irrigation, soil conservation, others) and therefore can support CPMs in providing no objections.

**Table 4.** GEFTF Added Value to the Baseline IRFSP

Level	Additional benefits
<p><b>The overall goal of IRFSP</b> is to improve the economic and social status of the population in selected rural areas where poverty is prevalent by generating income growth and sustainable employment opportunities through strengthening the agriculture production systems and the forward and backward linkages of value chains for cash crops.</p> <p>The specific objectives for rural poverty mitigation are: (i) increased efficiency of high value cash crops value chains; (ii) improving water infrastructures; (iii) upgrading food safety, the quality of marketable products, and family health.</p>	<ul style="list-style-type: none"> <li>- The GEF interventions will improve resilience of the smallholder farmers' production systems to land degradation and climate-related risks by promoting Efficient Irrigation Technologies (EIT), soil and water conservation (S&amp;WC) farming systems, and ecological restoration measures;</li> <li>- The GEF project will incorporate erosion control measures (e.g. protective vegetation shelterbelts to prevent wind erosion and siltation problems in the irrigation infrastructure) and water efficiency technologies in the rehabilitated tertiary irrigation infrastructure and conveyance networks.</li> </ul>
<p><b>Component 1 of IRFSP</b> would be <b>Rural Finance</b>, including credit for farmers and small enterprises to be channelled through the existing Rural Finance Facility (RFF), and equity and semi-equity financing through the Fund for Rural Economic Development in Armenia (FREDA).</p>	<ul style="list-style-type: none"> <li>- Project beneficiaries will be trained on environmental impacts reduction measures and climate-resilient technologies to be acquired through IRFSP available credits;</li> <li>- Financial Institutions selected by IRFSP will integrate the necessary information to evaluate robustness of applications for finance for environmentally sound, economically viable and socially beneficial investments.</li> </ul>
<p><b>Component 2 of IRFSP</b> would be <b>Rural Areas Water Infrastructure (RAWI)</b>, mainly irrigation improvement and rural water supplies, designed to improve the economic opportunities and standard of living for small farming families living in poor communities.</p>	<ul style="list-style-type: none"> <li>- Municipalities with communal lands close to the command areas of the IRFSP rehabilitated irrigation schemes will benefit from grants supporting investments in EIT, CA, OA, IPM systems;</li> <li>- Technologies are adapted and livelihoods diversified into the most productive and resistant products and value chains;</li> <li>- Service providers selected via tender by the PIU will support farmers and farmers' organizations in the adoption of sustainable farming systems and technologies, and in the implementation of landscape restoration works;</li> <li>- The financial support for agro-forestry planting and ecological restoration investments shall significantly decrease soil erosion rates in farmland/rangelands and in the upstream and downstream neighbouring lands, soil fertility shall significantly improve at a lower production costs leading to higher and more stable crop yields, and water requirements for crops shall be reduced.</li> </ul>
<p><b>Component 3 of IRFSP</b> would cover the <b>Farmer awareness and Support</b>, providing technical support, capacity building, and technical studies.</p>	<ul style="list-style-type: none"> <li>- Project beneficiaries will be trained on the environmental benefits of efficient irrigation, sustainable farming systems and landscape restoration measures;</li> <li>- Information material (i.e. leaflets, handbooks, articles, etc.) showing lessons learned on sustainable farming systems and technologies and landscape restoration prepared and disseminated widely to practitioners and society in general;</li> <li>- Best practices and lessons learned will be reflected in IFAD's country programme and will contribute to policy dialogue.</li> <li>- Creation of an effective reporting system on monitoring findings.</li> </ul>
<p><b>Component 4 of IRFSP</b> would finance <b>Programme Management</b>.</p>	<ul style="list-style-type: none"> <li>- The GEFTF project will help integrate combating land degradation and climate-risk aspects in the overall IRFSP project management and monitoring;</li> <li>- The GEFTF project will cover the costs for a GEFTF Project Coordinator that will ensure the overall coordination of the GEFTF activities and effective integration in the IRFSP baseline;</li> <li>- National and international experts will be hired to provide technical support and guidance for the effective implementation of the different project components, and help fully integrate sustainable land management, ecological restoration and climate-risk reduction issues in the baseline interventions and M&amp;E system.</li> </ul>

The core target group will remain the same as that of the IRFSP, namely poor smallholder farmers that cultivate crops in the command area of the obsolete or inefficient irrigation schemes to be rehabilitated by the baseline, willing and able to move towards more commercial production. The project will put particular emphasis on poor rural women headed households and unemployed youth, the most vulnerable group to environmental risks. Due to the inclusive nature of the irrigation rehabilitation and landscape restoration, whereby entire command areas and watersheds will be improved, some farmers who are outside the core target group of the GEF may also benefit. Recovery of assets and promoting sustainable land and water management systems and techniques would enhance production and income generation among the target group beneficiaries.

The targeting approach, strategy and gender mainstreaming of the proposed project under the GEF financing will be consistent with that of the IRFSP, which comprises geographical targeting, self-targeting and direct-targeting. It will be reinforced and refined in order to align the strategy with the specific characteristics and requirements arising from the nature of the proposed investments (irrigation improvement, sustainable farming and landscape restoration). The GEFTF project will invest in participatory mapping exercises, following an ecosystem-based approach for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way, to ensure coherent targeting, as well as the development of a monitoring and evaluation system that would facilitate the measurement of project impact.

## **5) global environmental benefits (GEFTF)**

The proposal will be designed to achieve Global Environmental Benefits (GEBs) under the Land Degradation Focal Area whose purpose is to foster system-wide change to control the increasing severity and extent of land degradation in order to derive GEBs through sustainable land management (SLM) systems and technologies. In addition to the direct social and economic benefits that will be gained from addressing land degradation through the use of SLM practices and landscape restoration measures, the project will: (i) improve the integrity of agro-ecosystems and their environmental services; (ii) increase carbon stocks and reduce carbon emissions in the restored landscape areas and in the farmland plots under sustainable farming systems; (iii) preserve and restore degraded natural habitats contributing to improved ecosystem stability and to the protection of agro-biodiversity of global importance; (iv) reduce erosion rates in the target landscapes including ecosystems and protected areas of international importance. A further indirect benefit potentially yielding GEBs elsewhere is (v) contribute to a more programmatic approach to SLM at national level, including more investment in SLM. These practices and lessons will be compiled and made available for adoption in other landscapes of the region and the country.

The GEFTF project will contribute to the LD FA Objective LD-1 ("Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods"), Programme 2 ("SLM for climate-smart agriculture"), Outcome 1.2 ("Functionality and cover of agro-ecosystems maintained"), and to the Objective LD-3 ("Reduce pressures on natural resources from competing land uses in the wider landscape"), Programme 4 ("Scaling-up sustainable land management through the Landscape Approach"), Outcome 3.2 ("Increased investments in integrated landscape management").

The indicators to track global environmental benefits will be: (i) Indicator 1.2 "land area under effective management in production systems with improved vegetation cover", targeting 750 ha of fruit tree agro-forestry planting in marginal communal land, and 880 ha of restored natural vegetation cover in the territory of the target municipalities; (ii) Indicator 3.3 "increased investments flowing to INRM and other land uses from divers sources", targeting about USD 2,765,000 of new investments in INRM (e.g. agro-forestry planting, women-headed farmland plots, natural vegetation restoration, honey and other wild products value chain development).

## **6) innovativeness, sustainability and potential for scaling up**

The project will contribute to integrate SLM systems and technologies (e.g. EIT, CA, OA, IPM) with agro-landscape restoration measures to improve soil and water conditions at a broader landscape level, and mitigate the expected exacerbation of soil erosion and land degradation. The project will focus on successful landscape restoration planning, methodologies and techniques supporting effective soil preparation and planting techniques for selected multipurpose native plant species, to ensure healthy plant growth and the long-term survival of the restored vegetation. Lessons learned from the project field demonstration actions will be gathered, analysed, compiled and disseminated to help replicate and upscale them within the target marzes and elsewhere in Armenia.

Sustainability will be sought through a broad and deep capacity building (CB) programme, designed to create a critical mass of capacity for CA at the national level, and among all actors – from institutional to grassroots. The CB process will integrate strong participatory elements to fully address issues that affect the sustainability of natural resources and the welfare of local communities (continuous training and on-farm demonstrations to consolidate adoption of SLM and ecological restoration methods and techniques, and encourage adoption by other farmers in the region). The restoration of shelterbelts and vegetation in the target areas, and the enhancement of their

protection functions will contribute to the stabilisation and health of the agro-ecosystem, thus to the sustainability of the project.

The sustainability of the project is also guaranteed by the full involvement and empowerment of smallholders throughout the various components of the project. Smallholders will be the targets of the awareness raising and capacity building programme, and they will be the main beneficiaries of the components on production/processing improvement and the provision of new technologies.

The IRFSP baseline support for rural investments and the innovative funding opportunities for small farmers from RFF and other possible organizations can be further developed by scaling up their capacity to invest in a larger scale and by introducing new, innovative approaches in their operations with the objective of reaching IFAD's ultimate target group in a more effective manner.

IFAD's specific role will be to lead the design process, and to ensure appropriate guidance during supervision of the programme, conduct impact assessments and studies to document the lessons learned so far. Results of the pilot adaptation actions will be disseminated widely within and outside the project area. Moreover, the project will be linked to ongoing regional and global programmes to ensure exchanges and dissemination of information at a wider scale using the IFAD website, UNFCCC, GEF and other platforms for experience sharing.

The GEF will be designed to maximise the possibility of upscaling lessons learned and best practices beyond project finalisation, and the need to expand the adoption of efficient irrigation technology, sustainable land management, and adaptive restoration practices beyond the project area. The strong capacity building component and the involvement and buy-in of all concerned stakeholders will undoubtedly facilitate this task.

**A.2. Child Project?** If this is a child project under a program, describe how the components contribute to the overall program impact.

**A.3. Stakeholders.** Elaborate on how the key stakeholders engagement, particularly with regard to [civil society](#) and [indigenous people](#), is factored in the preparation and implementation of the project.

The main target group are poor farmers and rural households that cultivate crops – mainly under rainfed conditions – in the command area of obsolete and inefficient irrigation schemes, who are seriously constrained by the lack of access to irrigation water, rural financial services, new technological packages and inputs, and production and business related skills. The project will specifically target about 8,000 farmers, with a special focus on the most vulnerable groups – women and unemployed youth – who will benefit from the landscape restoration and agriculture diversification measures, based on SLM and climate-resilient agronomic systems, and from the job creation opportunities linked to the establishment and institutional development of small business groups (e.g. women groups producing high value vegetables; young farmers' associations working on the production and marketing of honey, wild fruits or herbs) producting/harvesting and marketing high value crops and wild products. Start-up packages for women groups and youth organizations will be provided to support the necessary investments to start their own businesses, together with continued guidance for an effective performance, and training addressing the specific institutional development and technical needs for the women and youth groups.

The project will provide financial support to the target municipalities to: (i) help convert marginal communal land previously devoted to unproductive rainfed crops into high value fruit tree crops that will benefit the irrigation water provided by the rehabilitated tertiary schemes (IRFSP baseline interventions); (ii) restore degraded natural habitats in the landscape units or small basins within the target municipalities, to enhance the ecosystem services supporting the effective functioning of the irrigation schemes (e.g. water purification, flow regulation, protection of catchment areas, erosion control along river banks and irrigation schemes), sustainable agriculture production (e.g. soil erosion control, fertility, soil water conservation, pollination), biodiversity conservation, and the provision of ecosystem goods, such as bee products, wild fruits and herbs. The project will specifically engage the municipality leaders and councils, as well as the water users' associations (WUA) from the command areas of the irrigation schemes operating in the target municipalities, to plan, design and implement the integrated landscape restoration and marginal land conversion measures.

The project will hire services from international and national experts (e.g. independent consultants and other experts from academia, research centres, aid agencies, private sector and NGO) with demonstrated solid knowledge to undertake the necessary field assessments, identification of best practices, development of intervention guidelines, training, technical support, monitoring and evaluation. The project will also develop collaboration frameworks with Armenian civil society organizations with demonstrated experience in supporting the adoption of sustainable farming systems by vulnerable population groups (e.g. Oxfam, Green Lane, CARD, Ecoglobe) and in the implementation of landscape restoration work (e.g. WWF Armenia, ATP, Armenian Forests) to provide continued guidance to the project beneficiaries for the effective implementation of the field interventions.

The project will also develop collaboration frameworks with the Armenian National Agrarian University (ANAU) and the Environmental Research and Management Centre (ERMC) to hire expertise for reviewing sectorial policies and develop recommendations for policy improvements. The PIU will engage the MoA and MNP to lead the organization of national workshops to introduce the policy assessment results and debate about policy recommendations, involving other ministries (e.g. the MTA, the M. of Economy), regional agriculture and environmental protection departments, municipality authorities, civil society organizations, academia, international aid agencies, etc.

**A.4. *Gender Considerations*.** Elaborate on how gender considerations were mainstreamed into the project preparation, taking into account the differences, needs, roles and priorities of men and women.

Following IFAD's policy and Governmental recommendations, the project will pay special attention to enable women to access agriculture production means, and join professional organizations, and especially of the decision-making bodies. Targeting would give specific consideration to vulnerable women-headed households and youth by mobilizing awareness and support activities for these groups to enable them to take advantage of opportunities provided by the Project. This will involve selection of training and other capacity building activities, which specifically benefit and are suited for the needs of the rural women and youth, and will provide preferential access to women and youth for trainings. Furthermore, the IRFSP baseline Project has a significant allocation into water supply for multi-use drinking water and irrigation for household plots in poor rural areas, which is expected to benefit women the most. As an additionality to this IRFSP component, GEFTF Project Outcome 1.2 will specifically target women - with a major focus on women-headed households - to support them in the adoption and implementation of climate-resilient farming systems for high value crops diversification.

In order to strengthen the financial capacity of women and young unemployed, the program will support the development of income-generating activities accompanied by a detailed training programme on institutional development issues, literacy, cooperative management, business skills, etc. Specifically, the project Outcome 2.3 will provide support for the creation of small enterprises or cooperatives to run manufacturing units for fruit tree and vegetable value chains, as well as by-products enhanced by the ecological restoration interventions (e.g. honey and other bee products; fresh/dry wild fruits and berries; dry herbs; essences). According to IFAD's Environment and Natural Resource Management (ENRM) Policy and Environmental and Social Assessment Procedures (SECAP), the Project will apply NRM-focused approaches, by introducing the ecosystem approach to NRM through appropriate methodologies to define and apply sustainable harvesting and conservation criteria for the natural products under use.

**A.5 Risk.** Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

Risk	Level	Mitigation measures
On-the-ground implementation slowed by bureaucratic constraints	Medium	The project will couple a participatory approach with sufficient institutional strengthening. The baseline programme will ensure adequate remedial measures to minimize this risk.
Insufficient and inadequate staffing for backstopping	Low	In addition to the line ministries departments and services, the project will involve international and national technical assistance and service providers for backstopping. The project will engage in a comprehensive training and awareness raising program targeting all concerned actors (government institutions, extension services, research/academic institutions, NGO and farmers), to ensure that its approach and objectives are fully understood and integrated in their work. The GEFTF funding will empower all stakeholders to deal with SLM and climate-risk reduction.
Disbursement delays	Medium	Technical assistance mobilized to support preparations for project start-up; Project will benefit from the experience of IFAD projects and IRFSP baseline PIU staff and skills.
Loss of institutional memory	Low	The project will ensure that all project activities and achievements are well documented (soft and hard copies of all documents will be kept). Information on the project will be disseminated to key stakeholders.
Land size and tenure issues have a	Medium	The Project will pay particular attention to land size and consolidation mechanisms. It will build on the baseline experience – IFAD programmes in

negative impact on project implementation and on sustainability of achievements.		<p>the creation of successful WUA, SME, and other farmers' organizations, and the provision of leadership and management skills to consolidate land. The project will also focus on awareness raising and capacity development to clarify land tenure issues and identify effective solutions to promote adaptive land restoration measures in private and communal land.</p>
Insufficient application of targeting procedures, with special attention to gender issues.	Low	<p>Targeting will be aligned with IFAD's policy and approach in Armenia. Effective monitoring and evaluation procedures will be established to ensure that targeting is adequate. Gender issues are already well embedded in IFAD's country programme. The project will strive to involve the maximum number of women beneficiaries in its activities, at it will pay special attention to the creation of new jobs for women through complementary, off-farm activities.</p>
The lack of access to financial services and markets discourages innovation and technological improvement.	Medium	<p>Increased availability of financial means for smallholder farmers is a major component of the IRFSP baseline.</p> <p>The GEFTF will raise awareness of financial institutions about the type of investments supporting SLM and climate-risk reduction, and will support the definition of criteria to guide financial support to target farmers.</p> <p>The sustainable farming practices supported by the project (agroforestry, EIT, CA, OA, climate-resilient processing equipment) will help improve yields, quality and safety of products, and thus might open new market opportunities.</p>
Weak political will to streamline SLM and climate-risk reduction, consolidate the institutional framework and enforce laws.	Medium	<p>MoA is highly committed to support SLM and climate-risk reduction systems and technologies as a major need to prevent land degradation and ensure sustainable yields.</p> <p>The NCSA project in Armenia has ensured a highly participatory process identifying links between Rio conventions priorities for Armenia.</p> <p>The Government is also engaged in the implementation of several National Programs that seek to address SLM and climate-risk reduction in the crop production, livestock and forestry sectors in a comprehensive and holistic way.</p>
Recurrent CC related impacts such as drought, runoff erosion due to floods, and hailstorms threaten the implementation of activities	Medium	<p>The measures to mitigate such risks are contained in each of the 3 Project components. Activities will target SLM and climate-risk reduction deficit of the country, empower farmers/institutions and promote adaptive practices and infrastructures. All measures combined aim at reducing climate change vulnerability and improving management of natural resources and production systems.</p>
Environmental impact of works and activities in the programme area	Low	<p>The irrigation infrastructure rehabilitation and modernization will incorporate environmental impact assessment criteria in the selection of the promoted technologies, following IFAD and other partners' experience in Armenia and neighbouring countries.</p> <p>Part of the ecological restoration interventions will enhance the environmental sustainability of the irrigation infrastructure (e.g. vegetation shelterbelts along irrigation channels and bio-engineering structures to reinforce eroded riverbanks).</p>
Uncertain Operation and Maintenance Cost recovery strategy for Irrigation Infrastructure	Medium	<p>The project will ensure a set of activities that will reduce cost of maintenance and increase interest in participating in the operational costs. The project will ensure monitoring of the involved WUA and Municipalities in order to ensure effectiveness of the system established by Armenian laws and practices.</p>
<b>Overall Rating</b>	<b>Medium</b>	

*A.6. Institutional Arrangement and Coordination.* Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

The existing IRFSC Project Implementation Unit (PIU), that has already been responsible for successfully managing the implementation of several IFAD/OFID rural development programmes, would have overall responsibility for coordinating the implementation of the GEFTF Project components. As with previous IFAD projects in Armenia, overall responsibility for Programme management and implementation would rest with the baseline Programme Steering Committee (PSC)<sup>15</sup> reporting to the Prime Minister's Office (the LPA).

The principal functions of the PIU would be to carry out the overall programming and budgeting of Programme activities, take direct responsibility for implementing the irrigation rehabilitation works, rural infrastructure, SLM, Ecological Restoration and capacity building issues, as well as monitoring and documenting Programme progress. In this respect, lead responsibility within the PIU would rest with: (i) the PIU/Project Director for overall programme management; (ii) Project Coordinator hired by GEFTF project in consultation with RAED PIU Director and based on IFAD No objection will ensure effective project coordination, implementation, management, adequate identification and promotion of suitable investments in EIT, CA, OA, and other SLM and landscape restoration technologies through the project grant schemes, and full integration of the GEFTF Project into the IRFSP baseline interventions; (iii) the Engineering Division (ED) under the supervision of Project Coordinator will lead the rural infrastructure rehabilitation and modernization component, (iv) M&E Division under the supervision of Project Coordinator will lead the capacity building and monitoring programmes, conducting annual outcome surveys, fund-raising, and collection of regular monitoring data, as well as project reporting and knowledge management; (v) The Office Management division in consultation with Project Coordinator will be responsible for the organization, coordination, and supervision of the PIU to ensure the smooth flow of its work Programme; (vi) The Finance division will be responsible for the generation of documents that will ensure the proper acquisition of assets, services, and equipment, for establishing efficient and effective funds disbursement, and developing coordination mechanism among the PIU units that is prior sent for IFAD No objection by the GEF Coordinator through PIU's Director .. The PIU divisions will also be responsible for coordinating the experts and service providers, selected by the PIU following IFAD guidelines, in charge of the assessment and feasibility studies, and the provision of technical expertise for the adoption of sustainable farming systems and technologies and the implementation of ecological restoration actions. All proposed activities shall be sent for IFAD No objection by Project Coordinator.

The GEF Coordinator, in consultation with national and international partners, will prepare draft Annual Work Plans and Budgets (AWPBs) for each Project year and will ensure, under the supervision of the PIU's Director, its adherence with the baseline AWPB. The consolidated AWPB (IRFSO + GEF) will be submitted, by the PIU's Director, to the Programme Steering Committee (PSC) for review and approval. The draft AWPBs would include, among other things, an annual procurement plan, a detailed description of planned Programme activities during the coming Programme year, and the sources and uses of funds. If required, the PIU, through the PSC, could then propose adjustments in the AWPB during the relevant Programme year, which would become effective after subsequent clearance by IFAD. Provision has been made in the Programme costs for Annual Stakeholder Review and Planning Workshops at which Annual Performance Report findings and management implications would be discussed and fed into the AWPB preparation process.

The GEF Coordinator in consultation with PIU would submit both semi-annual and annual progress reports in English to IFAD to provide essential information on the physical and financial progress of Programme activities and regular assessment of Programme impact using a format that would be agreed at the time of Programme start-up. These progress reports would then feed into the Annual Progress Reports.

The IFRSP/GEFTF fully blended project would be supervised at three different levels. Overall responsibility for implementation and supervision on behalf of the GoA would be through the PIU acting directly under the Programme Steering Committee. For the technical supervision of works financed under the Project, PIU in consultation with Project Coordinator and based on the TOR developed by PC in consultation with IFAD and/or based on No Objection of IFAD, would hire specialized consultants to ensure that specifications are adhered to and outputs are achieved as planned. For supervision by the external financiers, IFAD will supervise and be responsible for the fiduciary aspects and Loan Administration of the IFAD financed parts of the Programme and OFID will have the same responsibilities for the OFID financed parts of the Programme. IFAD will continue to provide information to OFID on Programme progress as it is obtained through IFAD supervision and implementation support missions. AWPBs will be submitted concurrently to IFAD and OFID for the approval of the parts of the Programme for which they are responsible. IFAD

<sup>15</sup> Project Steering committee is composed of: (i) RA GOA Prime Minister,(ii) RA GoA Head of Staff/Minister,(iii) RA GoA Head of Staff/Deputy Minister, (iv) RA MoA Minister,(v) Chef Adviser of RA President, (vi) MoF First Deputy Minister, (vii) CBA Advisory Committee Member, (viii) SME DNC Executive Director, (ix) "INGO Armenia" Insurance CJSC Director, (x) "Grand Holding" "Masis Tobaco" LLC Executive Director, (xi) RA GoA Staff, RAED PIU Director, SC Secretary and has the following mandate: approving annual work plan and budget, oversees budget, work plan implementation and project management implementation.

will also conduct a Mid-Term Review (MTR), impact studies, and a final project completion review as per standard practice.

In addition, another important special area for attention should be for IFAD supervision to try to ensure a creative and energetic implementation of the project Outcomes. Past experience suggests that this kind of technical support and capacity building programmes being implemented by local NGO's or service providers can be difficult to implement successfully unless it is actively supported by the executing agency (in this case the PIU) to help clear logistical and institutional hurdles that will surely arise during implementation. Given the importance for the Project success, IFAD should be active during supervision in fielding the monitor and adaptive manage expertise needed to help achieve objectives. A special attention to the Project start-up should be given during the first supervision mission by IFAD

All IFAD-supported programmes have developed Programme Implementation Manuals (PIMs) that cover issues such as small works, infrastructure, equity investments, and loans to beneficiaries. The PIM and related manuals will be further developed by a service provider hired by the PIU. The IRFSP/GEFTF Programme Implementation Manual (PIM) will cover all components, Development of Programme Implementation Manual will be one of the Project's start-up activities.

The IRFSP/GEFTF will contribute to institutional development and outcomes by enhancing the capacity and skills of the Programme Implementation Unit (PIU) staff, which will have overall responsibility for implementation of the Project.

#### Additional Information not well elaborated at PIF Stage:

**A.7 Benefits.** Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The restoration of about 880 ha of degraded natural ecosystems, and the sustainable NRM of newly planted (750 ha) and existing fruit tree crops in marginal communal lands, will significantly reduce soil erosion, improve land productivity and vegetation cover, and enhance the ecosystem services supporting agriculture production and food security in the target areas. As a result, the project is expected to produce the following socioeconomic benefits: (i) an incremental production from communal marginal lands converted into fruit tree plantations where efficient irrigation and sustainable farming systems are applied; (ii) yield increases up to 50% from a wide range of high value crops as a result of improved farming practices and crop diversification, with special focus on women-headed households; (iii) increase production by about 25% from a number of wild products, especially bee-related products; (iv) about 20% increase in income generated from sales of more diversified and lucrative crops, and from by-products resulting from the landscape restoration interventions; increased profits would derive from improved production of high value products, enhanced quality of products, reduced production costs through modernization of production technology; and incremental employment.

The improved access to irrigation water and to appropriate financial services to rural small-scale producers and SMEs, resulting from the IRFSP baseline interventions, would significantly increase the ability of 8,000 farmers and small groups of entrepreneurs (including young entrepreneurs and women entrepreneurs) in the target project areas to access the necessary resources (water and funding) to implement the SLM, climate-resilient agriculture and landscape restoration measures supported by the Project.

**A.8 Knowledge Management.** Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

The project will build on lessons learned and case studies provided by other relevant projects and partners in Armenia and elsewhere. PIU will hire national and international experts to assess successful results on SLM, climate-resilient farming systems and landscape restoration that are applicable to the socio-ecological conditions in the target areas, and to develop implementation guidelines and training tools to support project beneficiaries in the transferring of know-how. The project will also develop collaboration frameworks with service providers (e.g. national NGOs and other organizations with a solid background and demonstrated experience on SLM, climate-resilient farming systems and landscape restoration) to support project beneficiaries in the implementation of the landscape restoration, fruit

tree planting and maintenance, and production and marketing activities, covered by the women and youth start-up packages, and grant funding provided to the target municipalities and WUAs. Project beneficiaries will benefit from training and exchange visits to successful projects implemented by the service providers in other parts of the target marzes and elsewhere in Armenia.

The project pilot field interventions and learning-by-doing activities will generate valuable knowledge - lessons and best practices on land degradation mitigation, SLM, climate-resilient farming systems, landscape restoration, and sustainable NRM - to be shared with interested actors in Armenia and elsewhere. The PIU will support the preparation of a number of awareness raising printed and audio-visual material that capture lessons learnt and impact. Printed copies will be disseminated during field work, conferences, through mailing, etc, and will also be available at the PIU and MoA. Main anchoring points for knowledge management will be identified, including research institutions, civil society, regional KM networks and specialised service providers.

The PIU will take care of the monitoring and evaluation of the learning process, through the production/use of monitoring/evaluation tools and by collecting feedback from all trainees. The quantitative and qualitative expansion of demonstrated systems and technologies will also be used as an indicator to evaluate the effectiveness of the capacity building process.

## B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

**B.1 Consistency with National Priorities.** Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

The GEF Project responds to the following governmental priorities addressing land degradation mitigation in agriculture landscapes:

- The adoption of sustainable agriculture management practices, rural income diversification and ecological restoration are seen as a priority in the Armenia Development Strategy (ADS) for 2014-2025.
- The National Plan to Combat Desertification in Armenia (NPCD) (2002) that proposes the following integrated actions to prevent desertification processes: (i) introduction of anti-erosion measures for pasture and hay-field improvement, including grassland restoration, rotation management systems; (ii) introduction of anti-erosion arable land development, including adequate organic fertilization for the different types of soils, crop rotation, rehabilitation of irrigation infrastructure, adjustment of irrigation systems to different crops, soil conservation techniques, and the use of the safest means for plant protection; (iii) forest protective and forest restoration activities; (iv) landslides and flood control protective infrastructures, drainage, etc.
- The *National Forest Policy and Strategy (2004)<sup>16</sup>* and *National Forest Program/NFP (2005)*, aiming to restore degraded forest ecosystems (2-2.5 thousand ha of restored forests, 5-5.5 thousand ha of new tree plantations, and 0.6-0.65 ha of protective forest by 2020), their sustainable use and to ensure the provision of environmental services.
- The TNC priorities and the adaptation measures proposed by the WB-funded study on *Reducing the Vulnerability of Armenia's Agriculture Systems to Climate Change* (2014), with special focus on: (i) the promotion of drought-resistant, pest-resistant crop varieties and breeds, with special focus on local varieties; (ii) the rehabilitation and modernization of irrigation schemes, and implementation of efficient irrigation technologies, soil moisture conservation cropping techniques and crop rotation systems; (iii) adopt changes in crop management, crop diversification, the use of heat- and drought-resistant crop varieties, the adoption of mixed farming systems (crop-livestock-tree), and switch from field to tree crop (agroforestry); (iv) ensuring grazing norms for the sustainable use and restoration of pastures; (v) the restoration of degraded forest ecosystems - reforest 5000 hectares of degraded forest areas and create 600 hectares of agricultural forest protection zone and shelterbelts during the period of 2009-2020; (vi) the adoption of integrated pest management measures and integrated fire management strategies in agriculture and forestry; (vii) the restoration of fruit tree orchards and vineyards; (viii) the prevention of landslides and floods through the restoration of vegetation on sensitive slopes and river banks, bio-engineering structures and other reinforcement elements, drainage techniques, automatic flood warning observation points, and modern methods of short-term and long- term forecasting of floods; (ix) the establishment of a system to monitor the application of ecosystem approaches in agro-ecosystem management and restoration at the basin level, and for the introduction of the "optimal afforestation" idea in the National Forest Strategy.

The GEFTF project will build institutional and technical capacity, and will provide technical and financial support to the target municipalities, farmers' associations (including WUAs) women and youth groups for the implementation of SLM measures to support sustainable farming systems and enhance ecosystem services in the target marzes,

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<sup>16</sup> [ftp://ftp.fao.org/TC/CPF/Countries/Armenia/Armenia%20CPF\\_FINAL\\_English.pdf](ftp://ftp.fao.org/TC/CPF/Countries/Armenia/Armenia%20CPF_FINAL_English.pdf)

responding to the above mentioned priorities identified by the Armenian government to combat desertification and land degradation affecting agriculture development.

The GEF Project is complementary with the baseline IFAD-supported IRFSP Project, addressing in an integrated way the root causes of agriculture decline and rural poverty in the targeted marzes. The input of the GEF funding will translate into: (i) more sustainable land management, higher yields and more diversified production through efficient irrigation and sustainable agriculture systems and technologies, better adapted crop types and varieties, and the ecological restoration of functional agro-landscapes in the target areas, preventing land degradation problems; (ii) improved access to suitable technologies and knowhow thanks to the facilitated access to improved services, inputs, and credit for producers, the positive impact of targeted technical and institutional capacity development, and the implementation of on-the ground activities.

### C. DESCRIBE THE BUDGETED M & E PLAN:

Project monitoring and evaluation will be conducted in accordance with established IFAD and GEFTF procedures. In line with the GEFTF operational principles, the Project M&E activities will be country driven and will provide for consultation and participation. The Strategic Results Framework provides indicators for project implementation along with their corresponding *means of verification*. These will form the basis on which the project's Monitoring and Evaluation system will be built.

The M&E system for the project is an integrated process that encompasses a number of specific actions. There is a dual objective: to ensure technical and procedural control over project activities to maximize efficiency and effectiveness, and to promote training and awareness-raising for direct stakeholders – beneficiaries, public servants and organizations involved – and other indirect stakeholders – other institutions, universities and development agencies.

The M&E system is a key cross-cutting project activity and calls for strengthening for the use of data produced not only for control and management effectiveness purposes, but more generally in producing functional knowledge for replication and transfer of best practices in other contexts, both in other production areas and countries.

The IRFSP/GEFTF joint monitoring will be a three-level system, consisting of output monitoring, outcome monitoring and impact evaluation. Output monitoring comprises the monitoring of physical and financial inputs, activities and outputs, both planned and actual.

Outcome monitoring assesses the use of outputs and measures their benefits at beneficiary level; it focuses on the accessibility of programme outputs and the extent to which they provide benefits to the target groups in terms of access to infrastructure facilities, financial services, markets, etc. It also includes the Programme's achievements in terms of returns, added value, direct and indirect job creation, and prospects for sustainability. The Programme conducts periodical standardized field surveys with Programme beneficiaries. The objective of the field surveys on the outcome level is: (i) provide management with information on quality and usefulness of Programme activities for planning and taking corrective action to remedy emerging issues; and (ii) collect qualitative data on Programme activities to identify success stories and models for replication. To capture qualitative aspects and to sharpen the analysis, the PIU's M&E staff complements the field surveys by conducting interviews with focus groups.

Impact evaluation assesses the measured change in selected variables between the beginning and the end of the Programme or a later selected date. The main instruments for the impact evaluation are the Programme's Baseline Survey and Programme Completion Report. The objective of the baseline survey is to establish benchmarks for time-series comparisons between Programme beneficiaries and non-beneficiary 'control' populations. The Field Surveys are used to collect relevant quantitative data for the Completion Report. Such quantitative data covers incomes and assets and increase in employment in the various value chains, thus providing the Programme with a dataset for quantitative impact evaluation. This, through extrapolation from relevant beneficiary strata, allows the evaluation of impact for all relevant value chains on at least the following levels: (i) incremental increase in farmer income and assets measured by internal rate of return (IRR) and net present value (NPV); (ii) employment creation; (iii) incremental increase in regional economic activity; and (iv) incremental increase in tax revenue to the government. The data collected in the course of the Field Surveys are complemented in the last Programme year by additional thematic studies procured by the PIU necessary to measure the full impact of the Programme's interventions.

To meet the M&E needs of IFAD and GEFTF, the results and impact management system (RIMS)<sup>17</sup> and the CC-Tracking Tool<sup>18</sup> will be set up at programme start-up with IFAD support. Primary geo-referenced data collection and

<sup>17</sup> <http://www.ifad.org/operations/rims/handbook/f.pdf>

<sup>18</sup> [http://www.thegef.org/gef/tracking\\_tool\\_CCM](http://www.thegef.org/gef/tracking_tool_CCM)

analysis will be done by the PIU. The project will also contribute data to the national environmental monitoring system in accordance with the DPSIR model<sup>19</sup> used in evaluating ecosystems.

**Baseline study** – During the first eight months of the project, a baseline study will be done. It will consist of a quantitative and qualitative survey of a representative sample of all beneficiaries, to establish characteristics affecting their adaptation capacity to the effects of climate change prior to implementation of project activities. Other areas of intervention will relate to socio-economic factors and, in particular, their income-generating capacities and competencies. The survey unit will be family production units, or households considered as the most appropriate basic unit for developing a sustainable circular economy

**Geographic information system** – This system will have the dual purpose of locating the various project activities in a specific and detailed fashion, as well as project inputs and pre-existing conditions, and facilitating information collection and sharing in the form of photographs, video or documents, using easily accessible open source instruments such as Google Earth<sup>20</sup>.

**Ongoing M&E system with semi-annual reporting** – Monitoring will be based on the initial data, using a system of comparison and recording of progress made over time by the project activities.

The project M&E system set up will allow for: (i) meeting the information needs of IFAD and government participants on a timely basis on programme activities, immediate results, and short- and long-term impact; and (ii) producing, organizing and disseminating the information needed for strategic steering purposes. To this end, the project will be supported with technical assistance at start-up to define indicators, install a computer system and develop the data collection and analysis methodology and technical specifications for the baseline surveys.

#### Monitoring and evaluation GEFTF budget

Type of M&E activity	Responsible Parties	Budget USD (GEFTF contribution) Excluding PIU Staff time	Time frame
Inception Workshop (IW) and report	Project Coordinator/ PCCU/PMUs	USD 3,500	Within first two months of project start up
Annual Progress Report (APR) and Project Implementation Report (PIR)	PIU IFAD		Annually
Tripartite Review (TPR) and TPR report	Steering Committee PIU IFAD		Every year, upon receipt of APR
Steering Committee Meetings	Project Coordinator IFAD		Following Project IW and subsequently at least once a year
Mid-term Evaluation	PIU IFAD External Consultants (i.e. evaluation team)	USD 20,000	At the mid-point of project implementation.
Final External Evaluation	PIU, IFAD External Consultants (i.e. evaluation team)	USD 25,000	At the end of project implementation
Terminal Report	PIU IFAD External Consultant		At least one month before the end of the project

<sup>19</sup> DPSIR: Driving forces, Pressure, State, Impact, Response.

<sup>20</sup> The system was designed and developed by Jacopo Monzini and Professor Massimo Gherardi. It is in use in 7 GEF funded project implemented by IFAD and it had been tested over the past 6 years in 9 different countries.

Day to day monitoring of implementation progress will be the responsibility of the PIU, based on the annual work plan and its indicators. GEFTF intervention will be fully blended with IRFSP operations and monitoring and evaluation system. The project will include gender expertise, and will adopt a gender-sensitive monitoring and evaluation system, providing disaggregated information by gender and age.

The PIU will fine-tune the progress and performance/impact indicators of the project during the inception workshop, when specific targets for the first year of implementation, progress indicators, and their means of verification will be agreed. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the annual work plan. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the PIU.

Measurement of impact indicators related to additional and global benefits will occur according to the schedules defined in the inception workshop. The measurement of these will be undertaken through subcontracts or retainers with relevant institutions, or through specific studies that are to form part of the projects activities, or periodic sampling.

Periodic monitoring of implementation progress will be undertaken by IFAD. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

In line with GEF requirements, the Project will adopt criteria for its monitoring systems, which are SMART - Specific, Measurable, Achievable and Attributable, Relevant and Realistic, Time-Bound, Timely, Traceable and Targeted. These are duly reflected in the project logical framework. A part of the participatory M&E will be devoted to ascertain the extent of women's participation in programme activities, constraints faced, benefits gained, aspirations met and impact on women's status in the family, their involvement in community affairs and the climate-proofing of their agriculture.

## REPORTING

A **Project Inception Workshop (IW)** will be conducted with the full PIU, MOA and relevant government counterparts, co-financing partners (OFID), IFAD and representation from the GEF as appropriate. A fundamental objective of the IW will be to help the PIU understand and take ownership of the project's goals and objectives, as well as finalize preparation of the first annual work plan on the basis of the project's strategic results framework (SRF). This will include reviewing the SRF (indicators, means of verification...), providing additional details as needed, and finalizing the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project.

Additionally, the purpose and objective of the Inception Workshop (IW) will be to: (i) detail the roles, support services and complementary responsibilities vis à vis the PIU; (ii) provide a detailed overview of IFAD-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Project Implementation Reviews (PIRs) and related documentation, the Annual Progress Report (APR), as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the PIU on IFAD project related budgetary planning, budget reviews, and mandatory budget rephasings.

The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff and decision-making structures will be discussed again, as needed, in order to clarify each party's responsibilities during the implementation phase.

A Project Inception Report will be prepared immediately following the IW, including a detailed First Year/Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year. This Work Plan will include the dates of specific field visits, support missions by IFAD or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame.

The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of all partners. A section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation.

The Annual Progress Report (APR) is an IFAD requirement and part of central oversight, monitoring, and project management, to reflect progress achieved in meeting the Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The format of the APR is flexible but should include the following:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome
- The constraints experienced in the progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- AWP and other expenditure reports
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress

The Project Implementation review (PIR) is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for a year, a Project Implementation Report must be completed by IFAD together with the project. The individual PIRs are collected, reviewed and analysed by the steering committee (SC) prior to sending them to the focal point at IFAD headquarters. The PIRs are then discussed in the GEF Interagency Focal Area Task Forces in or around November each year and consolidated reports by focal area are collated by the GEF Independent M&E Unit based on the Task Force findings.

As and when called for by IFAD, the PIU will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the PIU in written form by IFAD and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learned exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. IFAD is requested to minimize the call for special Thematic Reports (given that there are some of these already included in the workplan), and when such are necessary, will allow reasonable timeframes for their preparation by the PIU.

The project will support the preparation of a number of awareness raising printed materials, knowledge dissemination publications and technical reports that will be available online and/or as hard copies. Printed copies will be disseminated during field work, conferences, through mailing, etc, and will also be available at the PIU and MoA.

**Mid-term Evaluation:** An independent Mid-Term Evaluation will be undertaken at the end of the second year of implementation. The Mid-Term Evaluation will take the form of a qualitative study to determine the progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on: (i) the effectiveness, efficiency and timeliness of project implementation; (ii) will highlight issues requiring decisions and actions; and (iii) will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term, including the revision of indicators if needed. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The ToR for this Mid-term evaluation will be prepared by IFAD.

**Final Evaluation:** An independent Final Evaluation will take place three months prior to the terminal review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The ToR for this final evaluation will be prepared by IFAD.

### **PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)**

#### **A. GEF Agency(ies) certification**

This request has been prepared in accordance with GEF policies<sup>21</sup> and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency Name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Perin Saint Ange, Associate Vice- President, Programme Management Department, IFAD		16 Nov 2015	Jacopo Monzini	+39 06 5459 2352	j.monzini@ifad.org

<sup>21</sup> GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF  
GEF6 CEO Endorsement /Approval Template-April2015

**ANNEX A: PROJECT RESULTS FRAMEWORK** (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

### **Sustainable Land Management for Increased Productivity in Armenia**

Objective hierarchy	Key performance indicators <sup>22</sup>	Means of verification	Risks and assumptions
<b>Goal – to enhance the overall resilience of rural communities living in risk-prone areas of Armenia</b>	20% increase in income for target population based on VCs resilient to land degradation and climate-risks by the end of the Project.  5% reduction in the prevalence of malnutrition for children in target populations by end of Project.	National statistics.  UN and International Agencies reports.	
<b>Objective – to increase income and assets generated by smallholder farmers through investments in sustainable land management systems and technologies</b>	At least 1,630 ha are being managed and restored using new SLM practices.  At least 8,000 (80%) beneficiaries are more resilient thanks to SLM introduced practices (resilience index calculated on the basis of results indicators for components 1, 2 and 3).	M&E system and evidence-based data/remote sensing.  Midterm and final evaluations compared to baseline data.  Results and impact management system (RIMS) and Land Degradation-Tracking-Tool.	Global market crisis worsen (R).  National policies and incentives to support the agriculture sector remain in place (A).  Governmental policies on sustainable agriculture, desertification and CC adaptation are improved (A).
Outputs	Key performance indicators	Means of verification	Risks and assumptions
<b>Component 1 – Investments in Sustainable Farming Systems benefiting from rehabilitated irrigation infrastructure</b>			
Outcome 1.1 – Investments in sustainable fruit tree farming systems for increased productivity in marginal lands	8,000 farmers increase productivity through improved irrigation and sustainable farming technologies.  750 ha increase in agroforestry areas with diversified fruit trees..  Proportional increase in inputs efficiency by reduction of: (a) cost of inputs; (b) water consumption; (c) energy costs; and (d) post-harvest losses by at least 50% of beneficiaries.	Midterm and final evaluations compared to baseline data.  Reports and documents.  Feedback from beneficiaries and concerned stakeholders.  National statistics.	All stakeholders, public, private and civil society, keep alive their interest and willingness to take part in the participatory planning process (A).  Smallholder farmers are empowered and supported in grant development (A).  National and Global markets for high value crops (e.g. fruits and nuts, vegetables, honey) experience a downturn (R).
Outcome 1.2 Efficient land and water management practices for crop diversification and food security adopted by women groups	At least 30% of women-headed households have increased 50% yields from diversified high value vegetable crops.  Annual gross revenue of targeted women groups has increased by 50%.	Field surveys.  National statistics.  Monitoring and midterm and final evaluations compared to baseline data.	Local women and young unemployed are willing to embark in developing value chains of ecological restoration by-products (A).  The project is capable of provide adequate TA and investment (A).

<sup>22</sup> Performance indicators will be identified during the detailed design phase.

<b>Component 2 – Community-led land degradation prevention through landscape restoration interventions</b>			
Outcome 2.1 – <i>Ecosystem services supporting agriculture production are restored in the target areas</i>	Increase of fertility and ecosystem services (pollinators, water, vegetation cover) of about 880 ha of natural ecosystems in the target areas. Positive change in the ecosystem vulnerability index (e.g. Nº of hectares with reduced erosion based on RUSLE).	Field surveys. Monitoring and midterm and final evaluations compared to baseline data. MoA data.	Local stakeholders understand the value of ecological restoration for the improvement of farmland productivity and livelihoods, and are willing to participate in achieving this outcome (A).  The project is capable of provided all the needed support, TA and equipment in a timely fashion (A).
Outcome 2.2 - <i>Complementary value chain of high quality by-products resulting from landscape restoration developed by farmers' group</i>	Wild and sustainable product value chains (e.g. honey and bee products) increase their productivity by at least 25%.  Positive change in income generated by production and sales of wild products (at least 20%).	Field surveys. National statistics. Monitoring and midterm and final evaluations compared to baseline data.	Local women and young unemployed are willing to embark in developing value chains of ecological restoration by-products (A).  Progress continues on Armenian regulations governing markets and certification of organic products, such as honey, EMAP (A).  Rural exodus by landless young people increase significantly (R).
<b>Component 3 – Enabling environment to enhance capacity of smallholder farmers against land degradation</b>			
Outcome 3.1 - <i>The capacity of key practitioners to adopt sustainable land management practices and technologies is upgraded</i>	Demand for advisory assistance on SLM farming systems and technologies in targeted zones has increased at least 50%.  50% of women and young unemployed cooperatives supported by the project become autonomous.	Midterm and final evaluations compared to baseline data.  MOA data.	The project is capable of provide adequate TA and investment (A).  Rural exodus by landless young people increase significantly (R).
Outcome 3.2 - <i>Policy processes for SLM in Armenia are enhanced</i>	Number of implementation decrees issued in the field of SLM and NRM.	Midterm and final evaluations compared to baseline data.  MOA data.	Progress continues on Armenian regulations governing sustainable agriculture (A).  Firm commitment and cooperation of MOA and all other relevant gov. institutions to the process (A).

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

STAP Comments	Agency Responses
1) Recommendation to provide references for the data cited.	References are included in the Full Project Document Annex 4 - References.
2) Define further how gender is embedded.	The project approach about gender is described in section <i>A.4 Gender Considerations</i> of the CEO Endorsement, as well as in the Full Project Document.
3) State the indicators to be used to estimate and track global environmental benefits.	The indicators to estimate and track global environmental benefits are described in section <i>A.1 Project Description</i> , point <i>5) Global Environmental Benefits</i> of the CEO Endorsement.
4) Describe the role of water user associations in the target areas.	Irrigation has been included in the A.6 Risks section of CEO Endorsement, and "Risks and Assumptions" section of the Full Project Document (paragraph 271).
5) Include a map of the project region.	Maps of the target areas are included in the Full Project Document <i>Annex 6 – Atlas Describing Target Areas</i> .
6) Consider how the project can contribute to the integrated management of basins.	The Project will adopt the ecosystem-based approach of "Forest Landscape Restoration (FLR)", as a process that aims to regain ecological integrity and enhance human well being in degraded landscapes, such as the sub-basin units included in the target municipalities. It involves active stakeholder engagement through participatory planning workshops to identify vulnerable hotspots in the landscape, and define restoration needs and sustainable management measures to accommodate a mosaic of different land uses, including agriculture, agroforestry, protective vegetation in critical sites of the landscape such as river banks and catchment areas, resilient natural ecosystems providing goods and services for biodiversity conservation and people's livelihoods, etc.
7) Consult paper (Melkonyan A, 2015) discussing trend analyses of crop production and climate parameters in Armenia	The proposed bibliography has been consulted and included in the References.
8) Detail further how multi-stakeholder consultations will be conducted to ensure robustness and transparency.	the PIU will support local beneficiaries in a community resource GIS mapping exercise, which will be an integral part of the baseline study. This participatory exercise will look at the whole landscape units within the target municipalities to map the different land uses, understand the root-causes of land degradation, learn about local perceptions and coping strategies to environmental-risks, and identify vulnerable sites affected by environmental problems. This participatory process will involve the organization of a series of workshops in each municipality, involving all concerned local actors and external experts, to debate about climate-risk reduction and land degradation mitigation options, and, select suitable measures to increase the landscape resilience to environmental risks. This will involve the identification and mapping the land uses which are most appropriate for each site, and the type of interventions.
9) Consider carefully the restoration techniques to be applied	The Project adopts an ecosystem-based approach for landscape restoration in the target areas, aiming at restoring the ecological integrity and the overall quality of the natural capital (e.g. soil fertility, soil organic matter, soil water content, pollination services, healthy natural vegetation

	<p>cover) of forests and pastures so as to enhance ecosystem services supporting agriculture production in the target agro-landscapes. The Project follows the ecological restoration principles addressing biodiversity conservation, as well as the need to meet social and economic benefits in the restored landscape units (e.g. the watershed units in the target municipalities), as defined by the Society for Ecological Restoration (<a href="http://www.ser.org">www.ser.org</a>), and the Global Partnership for Forest Landscape Restoration (<a href="http://www.forestlandscaperestoration.org">www.forestlandscaperestoration.org</a>).</p> <p>Only native plant species will be considered in the landscape restoration interventions, preventing weed-risk or any other environmental problem that may result from the use of exotic species.</p> <p>Project Outcome 2.1 describes the meaning of bio-engineering.</p>
<b>German Council Comments</b>	<b>Agency Responses</b>
1) The spatial extent of the proposed project remains unclear and could be clarified	The spatial extend of the proposed project has been defined (3 marzes and 9 municipalities) and described in both the GEF full-sized project document and the CEO Endorsement document. The full size project document includes Annex 6 with an Atlas Map describing target areas.
2) With regard to pasture monitoring and management in Armenia, guidelines and tools exist that might be interesting to consider, such as the "Manual for Monitoring of Pastures, Armenia" and the "Guidelines for Pasture and Grasslands Management"	The suggested guidelines and tools are mentioned in the full project document (Outcome 2.1, paragraph 138).
<b>GEF Project Review Clarification Request</b>	<b>Agency Responses</b>
7) The project Logframe sets a target of 1,630 ha of areas restored / under SLM and mentions 8,000 beneficiaries, whereas Table B only includes 880 hectares and 1,500 farmers respectively. Please clarify.	Number of beneficiaries (8,000 farmers) in project logframe and table B have been harmonized. Number of hectares to be restored (1,630 ha) are the sum of 750 ha in Outcome 1.1 and 880 ha in Outcome 2.1.
17) Clarification request: OFID is listed in Table C as a donor agency. However, the co-financing confirmation is provided by IFAD in the same letter in which the IFAD cofinancing is provided. Please explain why OFID does not confirm its share of the co-financing.	OFID has allocated funds to the baseline IRFSP Programme, to be managed by IFAD. This means that all GEF co-financing is directly managed by IFAD.

**ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS<sup>23</sup>**

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF:				
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF Amount (\$)</i>			
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>	<i>Uncommitted Amount</i>
1. Team Leader and Natural Resource Specialist	22 500.00	-	21 886.20	613.80
2. Mapping and Vulnerability Assessment Specialist	24 500.00	2 533.13	20 384.62	1 582.25
3. Budget / M&E / Procurement Specialist	8 500.00	-	6 122.26	2 377.74
4. Climate Change / Agricultural Specialist	7 060.00	5 319.57	1 519.87	220.56
5. Travel **	10 000.00	2 329.80	2 344.40	5 325.80
6. PPG management	500.00	-	387.00	113.00
<b>Total</b>	<b>73 060.00</b>	<b>10 182.50</b>	<b>52 644.35</b>	<b>10 233.15</b>

<sup>23</sup> If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

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

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