



## GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

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### PART I: PROJECT INFORMATION

Project Title:	Contributing to Land Degradation Neutrality (LDN) Target Setting by Demonstrating the LDN Approach in the Upper Sakarya Basin for Scaling up at National Level		
Country(ies):	Turkey	GEF Project ID: <sup>1</sup>	9586
GEF Agency(ies):	FAO	GEF Agency Project ID:	640662
Other Executing Partner(s):	Ministry of Forestry and Water Affairs (MFWA), Ministry of Food, Agriculture and Livestock (MFAL)	Submission Date:	29 August 2016
GEF Focal Area(s):	Land Degradation	Project Duration (Months)	48
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 (\$)	226,916

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

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
LD-3 Program 4	GEFTF	2,388,584	13 600 000
<b>Total Project Cost</b>		2,388,584	13 600 000

### B. INDICATIVE PROJECT DESCRIPTION SUMMARY

<sup>1</sup> Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

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

**Project Objective: to develop a model for LDN target setting, planning, and decision-making at national level and for demonstration in the Upper Sakarya basin**

Project Components	Financing Type <sup>3</sup>	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
1. Strengthening the enabling environment for LDN	TA	1.1 Enhanced enabling environment for LDN	<p>1.1.1 Capacity development program in place on LDN target setting and its implementation for local and central government staff</p> <p>1.1.2 Creation of a national online Information Sharing Forum on LDN for stakeholder engagement</p> <p>1.1.3 Capacity development program in place for farmers, herders and forest villages in the Upper Sakarya Basin</p> <p>1.1.4 Identification of needs for new legislation and/or revisions of existing legislation based on project findings and targeted stakeholder consultations</p> <p>1.1.5 Integration of the LDN approach and priorities into strategic planning processes at sub-national and national levels</p>	GEFTF	409,719	3,000,000
2. Decision-Support System (DSS) for LDN	TA	2.1 Decision-support system for LDN target-setting and planning established	<p>2.1.1 Metrics for LDN indicators (i.e. land cover, soil organic carbon and land productivity) identified, tested and calibrated</p> <p>2.1.2 Software for DSS developed and tested</p> <p>2.1.3 Land cover</p>	GEFTF	350,000	2,000,000

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

		<p>2.2 Monitoring system and related capacity for LDN in place</p>	<p>classes and land degradation levels in demonstration area in the Upper Sakarya basin identified</p> <p>2.2.1 LDN target setting based on current and existing monitoring infrastructure and metrics agreed</p> <p>2.2.2 Effective and economic approach for soil organic carbon monitoring identified and disseminated</p> <p>2.2.3 Turkey's existing land degradation monitoring system calibrated to monitor LDN indicators and for testing in the Upper Sakarya Basin</p> <p>2.2.4 LDN-related reporting capacity improved</p> <p>2.2.5 Climate variability integrated into the LDN DSS and tested in the upper Sakarya Basin</p>			
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4. Upscaling of LDN experiences, monitoring and evaluation	TA	4.1 Upscaling of the LDN DSS to national level covering all of Turkey (78.4 million ha)	4.1.1 LDN metrics for the whole of Turkey entered into the LDN DSS and land cover classes and land degradation levels identified	GEFTF	315,123	1,600,000
		4.2 Monitoring of project results, lessons learned disseminated	4.1.2 LDN target setting at national scale in place 4.1.3 Development of bankable projects for the LDN fund (at least 1) 4.2.1 Global Environmental Benefits monitored and assessed 4.2.2 Mid term and final evaluation conducted 4.2.3 Experience sharing on Project-related "lessons-learned" and a national LDN guideline published			
Subtotal					2,274,842	12,600,000
Project Management Cost (PMC) <sup>4</sup>				GEFTF	113,742	1,000,000
<b>Total Project Cost</b>					<b>2,388,584</b>	<b>13 600 000</b>

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: (N/A)

**C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE**

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	MFWA	In-kind	6,000,000
Recipient Government	MFWA	Grants	6,500,000
Recipient Government	MFAL	In-kind	400,000
Recipient Government	MFAL	Grants	300,000
GEF Agency	FAO	In-kind	150,000
GEF Agency	FAO	Grants	250,000
<b>Total Co-financing</b>			<b>13,600,000</b>

**D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS<sup>a)</sup>**

GEF	Trust	Country/	Focal	Programming	(in \$)
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<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.

Agency	Fund	Regional/ Global	Area	of Funds	GEF Project Financing (a)	Agency Fee (b) <sup>b)</sup>	Total (c)=a+b
FAO	GEFTF		Land Degradation	(select as applicable)	2,388,584	226,916	2,615,50
<b>Total GEF Resources</b>					2,388,584	226,916	2,615,50

a) Refer to the Fee Policy for GEF Partner Agencies.

#### E. PROJECT PREPARATION GRANT (PPG)<sup>5</sup>

Is Project Preparation Grant requested? Yes  No  If no, skip item E.

#### PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

Project Preparation Grant amount requested: \$100,000					PPG Agency Fee: 9,500		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee <sup>6</sup> (b)	Total c = a + b
FAO	GEFTF	Turkey	Land Degradation	(select as applicable)	100,000	9,500	109,500
<b>Total PPG Amount</b>					100,000	9,500	109,500

#### F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS<sup>7</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>Hectares</i>
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>14,000 Hectares (direct intervention)</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)	<i>metric tons</i>
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	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	<i>Number of Countries:</i>

<sup>5</sup> PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF up to \$2m (for MSP); up to \$100k for PF up to \$3m; \$150k for PF up to \$6m; \$200k for PF up to \$10m; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>6</sup> PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

<sup>7</sup> Provide those indicator values in this table to the extent applicable to your proposed project. 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. There is no need to complete this table for climate adaptation projects financed solely through LDCF and/or SCCF.

mainstream into national and sub-national policy, planning financial and legal frameworks	Functional environmental information systems are established to support decision-making in at least 10 countries	<i>Number of Countries:</i>
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## **PART II: PROJECT JUSTIFICATION**

1. *Project Description.* Briefly describe: 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>8</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) innovation, sustainability and potential for scaling up.

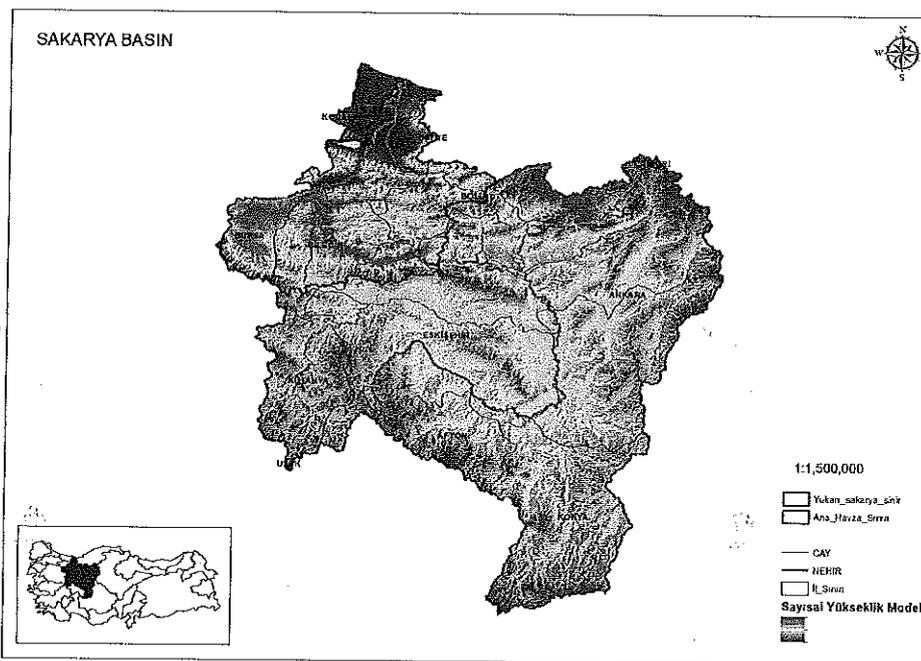
### **A. The Global Environmental Problem, it's causes and remaining barriers**

1. Turkey's geographical location, climate, topography and soil conditions together with the country's rapid socio-economic development increase sensitivity to desertification and drought. The total arable land area of Turkey is about 28 million ha out of a total area of more than 78 million ha. The main source of income of the country is agriculture and agriculture-based industry. However, the prime soils with high productivity and high organic carbon content cover only 17.5 % of the total land surface and the productivity of the rest of the soils is limited by topographical, chemical (e.g. high calcium carbonate content, alkalinity and low organic matter), and physical (e.g. water logging, texture) attributes. Plains from sea level to 250 m altitude cover only one tenth of the country, whereas places higher than 800 m cover two thirds, and half of the country is higher than 1000 m. Most mountain ranges extend from west to east and great ranges appear in the form of arches like the Taurus Mountains in the south, with development of topographically almost identical highlands and basins between the ranges. Because of these conditions, erosion is one of the most severe environmental problems affecting 81 % of the total land surface in varying degrees of severity (about 73 % of the cultivated land and 68 % of the prime agricultural land). Stream bank erosion affects 57.1 million ha while wind erosion degrades another 466,000 ha. As a result, about 168 million tons of soil is transported to the sea every year.

2. While the government of Turkey has been very active in addressing land degradation, there are many remaining challenges particularly in the context of the new Land Degradation Neutrality (LDN) target. The aspirational goal of a land degradation neutral world, to be realized by reducing the rate of land degradation and increasing the rate of restoration of degraded land, was agreed at the Rio+20 Conference in 2012. Subsequently, target 15.3 of the Sustainable Development Goals (SDGs) sets out a new global ambition: to achieve a Land Degradation Neutral World by the year 2030. Land degradation neutrality aims to maintain and increase the amount of healthy and productive land resources, in line with national development priorities. Land degradation neutrality is a flexible target that can be implemented at local, regional or national scales. It has been suggested that an LDN scheme should be introduced in phases. Phase 1 would focus on restoring degraded lands, improving national land use planning systems, and establishing international and national monitoring capacities. Phase 2 would reduce desertification rates with the help of fully integrated land use planning and monitoring systems. Phase 3 would set a target year for realizing an LDN goal, based on experiences in Phases 1 and 2. All three phases would be informed by existing scientific knowledge, and gaining new knowledge by launching a scientific LDN process that will evolve in parallel with the political process. This received major impetus following the 12th Conference of Parties (COP) to UNCCD in Turkey during October 2015 and the launch of the 'Ankara Initiative' by the GoT. The COP decided to make LDN a guiding principle for implementing the convention. However, the knowledge base for the LDN concept is still fragmentary and there are currently no agreed frameworks which could serve as a common point of reference for LDN target setting, particularly with regard to the balance between "gains" (improvements) and "losses" (degradation) and scale of neutrality.

<sup>8</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.

3. Against this background, the government of Turkey has decided to develop a project in the Upper Sakarya basin to test and further develop its approach to LDN target setting and implementation at landscape and national scale, as it is a region that includes a diverse mosaic of land uses and landscapes and is expected to be affected negatively by both land degradation and climate change. The Upper Sakarya Basin is located in the northwest part of Turkey (Figure 1) and has an average altitude of 965 m. The Sakarya River is the main water body of the Basin and is 720 km long draining to the Black Sea from the Sakarya Delta. Other than agriculture, one of the key drivers of the economy in the region is its industry. Eskişehir, Ankara and Kütahya are the main areas of industrialization. Due to industrial and household wastes, the water bodies in the basin are locally polluted.



**Figure 1:** Upper Sakarya Basin as part of the Sakarya Basin (delineated in red)

4. Although Sakarya Basin is heavily industrialized and the pace of industrialization is increasing, it is still one of the well-established agricultural basins of Turkey. The lower parts of the basin and plains at higher altitudes are mainly used for agricultural purposes. Almost half of the terrestrial lands in Sakarya Basin are agricultural lands. The main agricultural products are wheat, barley, rye, corn, sesame, sunflower and sugar beets as well as vegetables. Animal husbandry is predominant in some parts of the Basin with mostly cattle breeding around Ankara and sheep and goat breeding in Ankara and Eskişehir regions. The Upper Sakarya Basin covers an area of 4,899,302 ha with 3,169,588 ha of cropland, 980,179 ha of forest, and 164,060 ha of pastures/grasslands, with the rest belonging to other land use groups such as water bodies and urban areas. According to the analyses made by the Basin Monitoring and Evaluation System (BMES), 2,227,401 ha of land is under high and very high desertification risk.

5. Due to the steep topography and inappropriate land management, the Upper Sakarya Basin faces serious degradation. Due to the existing poverty level, local people heavily utilize the forest, pastures and agricultural resources. This has resulted in reduced land productivity. Some of the forests in the basin are degraded or lost due to land clearing for the opening of new farmlands, overgrazing and high demand for fuelwood. Although livestock is one of the main sources of income, the pressure on pastures is also increasing as grazing is conducted in a unplanned way. This degradation of natural resources is compounded by climatic conditions such as irregular and heavy precipitation which results in floods and economic losses in the region.

6. The Turkish government has already developed a series of plans and action plans to guide its investments in natural resource management, but these are generally sector-specific and lack a coherent approach that could form the basis for LDN target setting. Similarly, while the government of Turkey has carried out significant efforts to train its staff and local stakeholders to implement their sector-specific plans, additional work is needed in order to effectively demonstrate the LDN approach and mainstream LDN into the planning process. Likewise, while the GoT has carried out significant efforts to raise awareness and disseminate best practices and technologies to address land degradation, monitoring systems need to be strengthened to integrate LDN indicators and metrics to enable LDN target setting at landscape and national scales. In summary, the following barriers remain:

#### Barrier 1: Inadequate enabling environment

7. One of the key barriers to addressing land degradation effectively is the inadequate enabling environment, both from a policy/planning perspective and a capacity perspective. Each of these issues are described below.

##### *a) Policy/planning processes*

8. Spatial Planning in Turkey is undertaken through Environmental Plans coordinated by the Ministry of Environment and Urban Planning. The key regional planning tools are (i) the Integrated River Basin Management (IRBM) Plans, (ii) forest management plans, (iii) agricultural development plans based on agricultural basins, and (iv) integrated Coastal Management (ICM) Plans. IRBM plans are basically “conservation plans” for river basins. Currently, the MFWA has finalized the first steps towards developing IRBM plans—this is, plans for four basins are currently under preparation, and the government expects to have plans for all basins finalized before 2023. Regarding agricultural development plans, the Ministry of Food, Agriculture and Livestock (MFAL) organizes its plans through Agricultural Basins that are generally different from river basins.

9. Forest management plans are the key tools for forestry in Turkey. Forest management plans are prepared for each enterprise active in the Sakarya Basin every 10 years. On the other hand, Ministry of Environment and Urbanisation of Turkey is in the process of preparing Integrated Coastal Management Plans for all of the coastal provinces. The management and use of pasturelands is decided at the provincial level. Each province governorship founds a pastureland commission which meets regularly to decide on management issues, allocations and to solve any conflicts. Finally, the GoT is currently defining and piloting a new and higher level of spatial planning called Strategic Spatial Planning. The fundamental idea with this new planning instrument is to have a more participatory and collaborative approach at the local level.

10. There are thus different levels of planning with some of them focusing on specific sectors or landscapes which are led by different institutions. This array of planning processes in Turkey needs to be better coordinated in order to support the LDN approach in which land degradation management is coupled with land use planning. The institutions at regional and national levels that are leading in designing and implementation of these plans should be better informed to ensure successful acceptance and integration of the LDN concept and approach for implementation at site level. As land degradation is a multi-sectoral issue, the priorities and needs arising from following a LDN approach have to be reflected in all of the above-mentioned planning and management processes and tools.

##### *b) Lack of adequate capacity to mainstream and implement LDN*

Capacity is lacking both at the institutional (central and local government) and grassroots level (local communities, NGOs, Cooperatives, Farmer Unions) to mainstream and implement LDN. Although the recent developments in related sectors has increased the knowledge of combating land degradation in relevant institutions, the LD, LDN and SLM concepts are mostly interpreted as erosion control and/ or decreased productivity in production landscapes. Therefore, in order to achieve LDN mainstreaming at regional and national levels, the capacity and awareness of these institutions need to be enhanced. A capacity needs assessment and a corresponding training program will be designed during project preparation. The project will focus on building capacity of communities and government institutions within the Sakarya Basin, but keeping in mind the underlying goal of the project to upscale its experience both at the national and international levels.

## Barrier 2. Limited data, knowledge and experience to support decision-making processes on LDN

11. During the UNCCD COP 12, the parties agreed that voluntary LDN targets will be selected by countries themselves and LDN will be mainstreamed into national plans for combating land degradation. Also, possible key indicators for monitoring LDN are (i) soil organic carbon levels, (ii) land cover, and (iii) land productivity. However, the necessary target setting, LDN mainstreaming and monitoring/reporting of results are not fully applied by the countries yet due to knowledge and capacity constraints. Therefore, this project aims to establish a decision making tool with modeling abilities on LDN with tested monitoring schemes for selected indicators.

12. The GoT has a long history of developing tools for monitoring land degradation and erosion. However, while the country possesses soil inventory reports that go back for decades, the soil data available is often incomplete, fragmented and inaccessible to stakeholders engaged in the agriculture sector.

13. Experiences from the UNCCD-supported LDN pilot project in the Gediz basin in southwestern Turkey showed the usefulness of land productivity maps as a base layer for analyzing land cover and organic carbon. The pilot project also came up with recommendations for categorizing land use using the LDN indicator framework. The approach is thus ready to be implemented but improvements and adaptations are needed based on further field testing.

### **B. Baseline scenario**

14. The government of Turkey has been very active in addressing land degradation, but more remains to be done particularly with respect to integrating all sector-specific plans within a holistic decision-making mechanism that integrates the concepts of land degradation neutrality. The development plans are the key planning instruments in Turkey. Under the business-as-usual scenario, the government of Turkey will continue to develop a process whereby development plans are prepared mainly in isolation responding mainly to the needs of the Ministry of Development which is in charge of executing them. In the same way, capacity building and knowledge sharing continues to be done by the line ministries and only partly include LDN concepts. The following is the list of projects/program that constitute the baseline and will be counted as co-financing to the proposed project:

15. **Basin Monitoring and Evaluation System (BMES).** The General Directorate of Combating Desertification and Erosion (CEM) has initiated a large-scale project in collaboration with TÜBİTAK (The Scientific and Technological Research Council of Turkey) in order to create the ultimate system to monitor seven different indicators for basins in Turkey. One of these indicators is desertification that is also including erosion and soil conservation themes. The project has involved many scientist and institutes to determine the criteria for desertification. Up on consultations, TÜBİTAK has developed the database and the desertification module based on defined criteria. The database and module have been designed to meet the reporting needs of many relevant organizations in Turkey regarding combating desertification. At the end of the project, a desertification risk map has been produced. The module developed has been tested and calibrated. Currently, CEM is planning to undertake new projects to define modules for other indicators such as water module. The BMES has established Turkey's base for monitoring the status of desertification and success of basin wide SLM activities. The BMAS will act as a key infrastructure for LDN and it will inform the decision-making system for LDN target setting as well as monitoring the success.

16. **Identification of Potential Forestry Activities System – A baseline to LDN decision making in Forests.** In the recent past, Turkey has undertaken a project to determine the priorities of forestry actions in terms of restoration and land improvement. The project aimed at to define areas suitable for afforestation, forest rehabilitation, erosion control and rangeland rehabilitation. The model uses GIS infrastructure and data is gathered from expert and stakeholder consultations as well as literature data such as forest management plans. The model developed was piloted in an area of 461,128 ha within Ankara, Cankiri and Bolu provinces in Sakarya Basin. This approach can serve as a baseline model for LDN decision-making when it comes to defining priorities in selecting areas of land improvement/ restoration interest.

17. The GoT and the FAO have been cooperating under the **FAO-Turkey Partnership Programme (FTPP)** to establish a consolidated soil information system that can be accessed online through a web-based GIS by farmers, researchers, and decision-makers. It is expected that stakeholders will have access to reliable data in order to make better investment decisions leading to the preservation and sustainable management of soils. To date, all soil samples from the Ministry's archive have been analysed for data related to fertility, texture, organic carbon and bulk density.

18. **Integrated Natural Resource Management Projects in Turkey:** In Turkey, currently there are two large scale integrated basin rehabilitation projects under implementation. First, the Çoruh River Watershed Rehabilitation Project (2012-2018) is led by General Directorate of Forestry (GDF) supported by the finance of Japan International Cooperation Agency (JICA). The project covers an area of 2 million hectares in northeast Turkey. The project aims to provide integrated watershed rehabilitation including vegetation, soil and water resources; better living conditions for the rural population; soil conservation; rehabilitation of degraded forests; and prevention of natural disasters (avalanche, flood and overflow control). The total budget of the action is around USD 52 million.

19. Second, the Murat River Watershed Rehabilitation Project (2013-2018) is also led by GDF. It is located in eastern Turkey in the provinces of Elazığ, Muş and Bingöl with 25 micro-basin pilot sites. The project is funded by IFAD and GDF. The main goal of the project is to prevent land degradation and contribute to poverty reduction. The project has a strong community focus in the forest villages. The total budget of the project is around USD 38.6 million.

20. In addition, the Ministry of Forestry and Water Affairs (MFWA) is undertaking "integrated micro basin rehabilitation projects" from its own budget. Currently there are 7 projects under implementation with a total budget of USD 35 million. Among these, 4 projects are implemented in Konya province, 2 in Afyonkarahisar and one in Şanlıurfa. The projects that are under implementation will be finalized before the end of 2021. Additional projects are expected to be budgeted for and implemented during the coming years.

21. **Financing environment friendly agriculture in Turkey (CATAK)– A finance model for CSA.** Ministry of Food Agriculture and Livelihood (MFAL) has been running the Conservation Program on the Agricultural Lands for Environment (CATAK) since 2005 aiming to conserve and achieve sustainability in the use of soil and water, avoidance of erosion, reducing the negative effects of agricultural practices and support conservation of lands. The CATAK provides direct subsidy to farmers who are willing to improve their agricultural activities according to a set of criteria. The program has provided more than USD 20 million to more than 40,000 farmers covering an area of 140,000 ha (2014 figures).

22. **Current drought Early Warning Systems.** Although there are several research attempts to define and implement drought early warning systems for agriculture in Turkey, currently they are all in development phase and there is not an agreed and established system. The Ministry of Food Agriculture and Livelihood is working on some early warning methods based on monitoring of soil moisture and plant phenology. However, defining a proven and accepted method is expected to take more time.

23. On the other hand, Turkey has two drought management approaches in place: Strategy and Action Plan for Combating Agricultural Drought (2013-2017) and Drought Management Plans that are prepared for river basins of the country. The first strategy and action plan sets in place a province-based approach to respond to agricultural drought. It has two different approaches for irrigated and rainfed croplands. Through analyzing monthly precipitation levels and soil moisture, the level of agricultural drought is determined in all of the provinces. The different levels are defined as "Normal; Prepare for drought; Drought Alarm; and Restrictions". The steps to be taken in each category are defined in the strategy document. The decisions are taken by the province councils led by the deputy governor.

24. The basin wide Drought Management Plans are developed by the Ministry of Forestry and Water Affairs. It focuses on all sectors and defines what to be done by different stakeholders in case of drought emergencies with a focus of water allocation. The plans aim to decrease the effect of drought and better inform the decision makers.

Currently two drought management plans are prepared and put into operation for Akarcay and Konya Basins. The rest of the plans are expected to be finished before the end of 2020.

25. **Farmer Field Schools/rural advisory services in Turkey.** The Ministry of Forestry and Water Affairs (MFWA), in collaboration with the Ministry of Food Agriculture and Livelihood (MFAL) is leading two different GEF supported projects: “Sustainable Land Management and Climate Friendly Agriculture” and “Conservation and Sustainable Management of Turkey’s Steppe Ecosystems”. Both projects have the common approach to capacity development for local farmers, shepherds and villagers that are called Farmer Field Schools (FFS). The first project is under implementation and the first FFS is expected to be operational at the end of 2016 in Karapinar, Konya. The others will follow in a few more cities in the Project pilot sites. Although not part of the co-financing scheme, these two GEF-funded projects are part of the joint work between the Turkish Government and FAO. The LDN Project will benefit from the know-how, established processes and lessons learnt from the current FFSs. FFSs were designed by FAO to empower farmers and ranchers to become better informed on SLM to improve production, maintain ecosystem integrity, and reduce the long-term economic risks associated with degradation. FFSs are expected to establish a continuous learning approach between government staff and farmers so that all sides are better-informed regarding SLM approaches.

26. Another important baseline project in FAO’s Sub-Regional Office that the project will build on is entitled “**Towards achieving Land Degradation Neutrality: turning the concept into practice**”. UNCCD led this pilot project with the contribution of Government of Republic of Korea and 12 countries participated. The aim of the project was to have a representative sample of affected country Parties translate the land degradation neutrality goal into national voluntary targets, making use of the implementation framework and the monitoring and assessment mechanisms established within the UNCCD process. Turkey was a voluntary country party of this initiative—this is, it did not receive funding. Project activities included an analysis of soil organic carbon and land productivity index in a small pilot site in the Gediz Basin. Turkey did not set national targets, as higher resolution data are needed for this purpose. In addition, the Ministry of Food, Agriculture and Livestock (MFAL) is carrying out the **National Land Consolidation Program** that through re-orientating property lines to create more square parcels will increase land productivity. The program was initiated in 2008 and will be finalized in 2018. The target is to consolidate 8.5 million hectares nationally with a total investment of US\$ 660 million.

27. The baseline scenario thus includes a number of important elements for establishing an LDN scheme in Turkey, as well as valuable experiences from an earlier LDN pilot project. However, to take the LDN approach to a new level in Turkey, incremental GEF funding is required to ensure that the LDN approach is developed and implemented in a coherent and consistent way across sectors and land uses that enables scaling up at national as well as international level.

### **C. Alternative scenario - expected outcomes and components of the project**

28. The Project sets out to develop a model for LDN target setting, planning and implementation in the Sakarya basin for upscaling at national level in line with SDG Target 15.3. It will take a phased approach and first strengthen the enabling environment for LDN and multi-sectoral land-use planning processes in Turkey, followed by development of a Decision Support System (DSS) for LDN that will first be applied in the Sakarya basin in northwestern Turkey. The final phase involves achieving land degradation neutrality on the ground in the Sakarya basin with associated global benefits generated related to improved land cover, enhanced soil carbon, and enhanced productivity thanks to improved land use. This will be followed by scaling up the LDN DSS to set targets at the national level.

#### **Component 1: Strengthening of the Enabling Environment for Land Degradation Neutrality**

29. A capacity development program will be put in place on LDN target setting for local and central government staff. The project will seek to develop capacity both at the institutional (central and local government) and grassroots level. At the local level, the project will focus on communities and government institutions within the Sakarya basin, but keeping in mind the underlying goal of the project to upscale its experience at the national level. To strengthen

stakeholder engagement at all levels, an online national Information Sharing Forum on LDN will be created, which will help in the identification of needs for new legislation and/or revision of existing legislation to support implementation of the LDN approach based on the project's experiences. Integration of LDN into strategic planning process will strengthen the enabling environment for LDN implementation first in the Sakarya basin, through support to scaling-up of the multi-sectoral planning process, before it is extended to the national level, but also to the regional level in Turkey's cooperation with Central Asia on sustainable land management.

### **Component 2: Decision Support System (DSS) for LDN**

30. This component will seek to develop the basis for a decision support system to prevent land degradation and allow the country to achieve its LDN targets. The design of the DSS will include the identification, testing and calibration of different metrics for LDN indicators (i.e. land cover, soil organic carbon and land productivity) that will allow decision makers to analyse tradeoffs and synergies between different types of land uses and practices. The selection of these metrics will build on the work currently being done by the country on desertification and erosion. These metrics will then feed an LDN decision support mechanism and a software for DSS will be developed and tested. This mechanism will also take into consideration available environmental, social data and global environmental benefits, such as land cover, soil organic carbon and land productivity when analysing tradeoffs and synergies between different land use development options. In line with the LDN concept, the mechanism to be developed will not be used as a means to justify degradation of land in some areas while "compensating" for this degradation in other areas. Instead, the mechanism will be designed as a forward looking process aimed at integrating and coordinating activities for the prevention and reduction of land degradation, rehabilitation of partly degraded land, and reclamation of desertified land.

31. As better information becomes available, the project will also dedicate efforts to the improvement of the reporting on LDN. In this regard, the project will carry out a gap analysis on reporting needs as well as enhancing national capacity, including the development of guidelines and best practices to enhance reporting. The DSS will be tested in the Sakarya Basin, where the GoT has extensive experience of LD monitoring, and land cover classes and land degradation will be identified followed by LDN target setting. The three key indicators will be ground-truthed during project implementation. Moreover, identification of the best means of LDN reporting will be based on this experience and the necessary capacity of government staff will be built to overcome knowledge gaps in LDN reporting. Finally, this component will also support the integration of climate variability into the DSS. that will be tested in the Upper Sakarya Basin under component 3 of the project. This will be coupled with the application of the Resilience, Adaptation and Transformation Assessment (RAPTA) tool developed by STAP in order to identify different land use and land development pathways depending on resilience to drought and other external shocks. The experience gathered from the project will be made available at national as well as international level.

### **Component 3: Demonstration of the LDN approach in the Upper Sakarya Basin**

32. This component will demonstrate and test the DSS developed under Component 2 in the Upper Sakarya Basin with the aim of generating global environmental benefits in terms of improved land cover, enhancement of soil organic carbon and productivity in the Basin leading to improved local livelihoods. Participatory landscape-specific improvement plans will be developed based on priorities identified by the DSS. These plans will in turn inform the establishment of demonstration activities on SLM and SFM best practices in forests, rangelands and croplands that provide carbon benefits (e.g. sustainable grassland management approaches such as rotation and grazing capacity; reducing organic carbon losses from cultivated soils; and returning or leaving organic material such as farmyard manure, straw, and crop residues on the land to improve the productivity of croplands and grasslands; avoiding the conversion of forests to other land uses; storing carbon in existing forests through rehabilitation; restoring and other greening activities; limiting the impact of disturbances such as fires, pests and diseases). In addition, measures and approaches for reducing the impacts of drought will be integrated into the SFM and SLM practices to enhance their resilience to climate change. The project will seek to involve local stakeholders and communities in the decision-making process to ensure sustainability of the interventions. In addition, the project will seek to use Farmer Field Schools (FFS) as a means to achieve greater ownership and dissemination of best practices. An implementation plan for achieving LDN targets in the whole Sakarya Basin will be developed based on the experiences from the

demonstration activities. This will be coupled with introduction of gender-sensitive sustainable livelihood strategies and a focus on enhancing land productivity to improve local incomes and livelihoods. The project will undertake an analysis of current status and expectations of women in the pilot region and define mechanisms to answer the needs of women in terms of economic development and livelihoods.

#### **Component 4: Upscaling of LDN experiences, monitoring and evaluation**

33. This component will support upscaling of the LDN approach to national level. LDN metrics for the whole of Turkey will be entered into the LDN DSS, and land cover classes and land degradation levels will be identified nationwide in order to support LDN target setting at the national scale. It is expected that this exercise will also result in identification of bankable LDN field projects in other parts of Turkey that could be funded by the LDN Fund that is being established by the Global Mechanism of the UNCCD. Global Environmental Benefits (GEBs) generated by the field demonstration under component 3 will be monitored and assessed for reporting on SDG 15.3 and to the GEF, but also for drawing broader lessons on design of LDN interventions with the objective to maximize GEBs while ensuring LDN and sustainable livelihoods. The project will seek to disseminate and analyse best practices in sustainable agriculture, rangeland and forest management and publish best practices using e.g. the WOCAT reporting template, as well as publishing LDN guidelines based on the project's experiences. The project will share information with other interested countries through organization of an international conference/ meeting on LDN experiences and knowledge exchange.

#### **D. Incremental cost analysis and contribution from the baseline**

34. The proposed project will contribute to the GEF objective LD-3 on integrated landscapes, and its Program 4 on scaling up sustainable land management through the landscape approach. This will be achieved through applying the LDN concept to improve inter-sectoral land-use planning processes at sub-national and national levels and introduction of best management practices on the ground in the Sakarya basin with project experiences informing upscaling to similar areas.

35. Contribution from the baseline includes investments in the monitoring system for desertification developed under the BMES project, which will act as infrastructure for the LDN DSS, soil information system, model developed under the Identification of Potential Forest Activities System. In addition, GEF incremental resources will complement Government's efforts in the development of drought early warning methods, building on the Strategy and Action Plan for Combating Agricultural Drought (2013-2017) and Drought Management Plans. Component 3 will build on investments aimed to improve land productivity and conservation of lands. Co-financing for this component will be also provided by investment in integrated basin rehabilitation. Finally, co-financing for component 4 will include capacity development activities and dissemination of experiences.

36. Estimated co-financing from MFWA, both in-kind and in cash is around \$12.5 million,. Estimated co-financing from MFAL under this program will be around \$0.7 million, both in cash and in-kind for the duration of the project.

#### **E. Global environmental benefits**

37. The project will deliver the following Global Environmental benefits:

- Increased spatial coverage of SLM and SFM practices in the wider landscape on 14,000 hectares, including 5,000 ha on forest land, 5,000 ha on arable lands and 4,000 ha on pastures;
- Increased area under landscape specific improvement plans: 4,313,827 hectares;
- Improvement in the provision of ecosystem goods and services, including increase in productivity of 10% and reduction in soil erosion;
- LDN scheme at national level (covering 78.4 million ha of land)

In addition, the project will deliver co-benefits in terms of carbon sequestration. Expected targets will be calculated using EX-ACT during PPG phase when specific sites and SLM practices to be promoted through the Project will be defined.

**F. Innovation, sustainability and potential for scaling up.**

38. This initiative together with the baseline project on turning the LDN concept into practice is the first of its kind in Turkey and is also linked to the global pilot project on LDN coordinated by the UNCCD. As such, it will generate new and innovative approaches to multi-sector land use planning based on testing and implementation in the Sakarya Basin. The experiences are expected to be replicable across Turkey through activities of MFWA and MFAL and opportunities for scaling up best practices will also be explored in the context of Turkey's sharing of experiences with other countries and the UNCCD, especially in Central Asia. During the COP 12, held in Ankara, Turkey has declared that it will continue supporting countries that are lacking the financial and institutional means as well as capacities to address LDN, through the so called Ankara Initiative. The joint efforts of GoT, UNCCD and the Global Mechanism will make the know-how and financial tools available to countries in need of such support. Therefore, the outputs of this project can be disseminated through the Ankara Initiative as well as through other established channels. Although the parties of COP 12 have decided to adopt voluntary LDN targets, to mainstream LDN into national policies and to establish necessary capacity for LDN monitoring through several indicators, this knowledge is not yet fully available for countries. The project can act to fill this gap by developing methods and tools for LDN implementation, monitoring and evaluation.

2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society organizations (yes  /no ) and indigenous peoples (yes  /no )? If yes, identify key stakeholders and briefly describe how they will be engaged in project preparation.

<i>Stakeholder</i>	<i>Relevance</i>
National Government	
Ministry of Forestry and Water Affairs (MFWA)	MFWA is responsible for combating desertification, conservation and improvement of range land, natural parks, nature parks, nature conservation areas and wildlife resources; water resources, streams, lakes and ponds besides forest conservation planning, and national standards and regulations about forest protection, organization and implementation of the establishment of forest protection zones in Turkey. MFWA will support for the design, implementation, financing and mainstreaming of the strategy, policy improvements and related activities for this project and will be a member of Project Steering Committee and executive partner of the Project. MFWA will take place coordination and implementation of the Project and support impact and progress monitoring and information dissemination and national replication/scaling up of project success.
Ministry of Food, Agriculture and Livestock (MFAL)	MFAL is responsible for organizing, coordinating and guiding of conservation of soil and agricultural lands, prevention of soil and land degradation and loss of soil and water resources, and biodiversity conservation. MFAL will support for the design, implementation, financing and mainstreaming of the provincial level policy strategy, policy improvements and related activities. MFAL will make certain agency action and regulatory frameworks are designed and implemented to achieve project objectives and will a member of Project Steering Committee and be an executive partner of the project (with WFWA). MFAL will take place coordination and implementation of the Project and support impact and progress monitoring and information dissemination. MFAL will be responsible to upscale of project success on nationwide.
Ministry of Development	Ministry of Development of the Republic of Turkey is an expert based organization which plans and guides Turkey's development process in a macro approach and focuses on the coordination of policies and strategy development. Will support impact and progress monitoring and information dissemination.

<b>Stakeholder</b>	<b>Relevance</b>
UNCCD National Coordination Body	The main aim of the UNCCD National Coordination Body is to coordinate the formulation and implementation of the National Action Programmes and to mobilize national and international resources. Also will contribute to the build up effective mechanisms towards sustainable land management in Turkey.
<b>National Level NGOs</b>	
Nature Conservation Centre	The main aim of the Centre is conservation of biodiversity and sustainable management of natural resources. The Centre has a strong experience in biodiversity mainstreaming into production landscapes and conservation/ climate smart agriculture implementations in Turkey. The Centre is implementing the Coca Cola and UNDP supported Life Plus Environment Program in Konya and GAP regions with water retention and land protection targets. Moreover, the Centre has developed the mechanism for MFWA for biodiversity mainstreaming into forests management planning.
Soil Science Society of Turkey	SSST is an NGO working for the conservation, utilization and assessment of Turkey's lands through a scientific approach. The organizations is a member of National Coordination Entity for the Combating Against Desertification under the MFWA. The members of the NGO has a long lasting experience in land degradation and management of soil resources and they have acitively participated to the preparation of Turkey's strategy and national action for combating desertification.
Green Turkey Foresters Association	This organization of foresters aims to increase awareness in general public regarding the importance of trees and forest and increasing the capacities of its members. The NGO undertakes many activities on awareness raising including publications, conferences, workshops and carries out afforestation activities.
<b>Regional-Government Agencies</b>	
Regional Directorate of the Ministry of Forestry and Water Affairs (RDoM) (MFWA)	RDoM is responsible for conservation and improvement of forest, range land, natural parks, nature parks, nature conservation areas and wildlife resources; water resources, streams, lakes, ponds, and wetlands in the forests in these provinces. RDoM participates in the works and activities related to the conservation and enhancement of plant and animal genetic resources within its responsibility. RDoM will make certain agency actions are guided to achieve SLM conservation management objectives and standards. The Regional Directorate will be a member of the project implementation unit and support monitoring of objective achievement and information sharing.
Regional Directorate of State Hydraulic Works (DSI)	DSI is responsible for multiple utilization of surface and ground waters and prevention of soil erosion and flood damages. DSI is equipping all economically irrigable land with modern irrigation facilities. DSI will make certain agency actions are guided to achieve SLM conservation management objectives and standards. DSI will be a member of project implementation unit and support monitoring of objective achievement and information sharing.
Regional Directorate of Forestry (RDOG M)	RDOG M is responsible for activities such as afforestation and erosion control, rehabilitation of rangelands, combating desertification, floods and avalanche control in any area within forests and outside forests; to develop and implement integrated watershed projects. RD will achieve all related data needed during the planning and implementation of project. RDOG M will be a member of project implementation unit and support monitoring of objective achievement and information sharing.
Regional Directorate of Meteorology (RDM)	RDM is preparing and making weather forecasts for use in the affected areas in fighting adverse agricultural conditions and conducting "Drought Monitoring System". RDM will provide all climatic data that will needed during the planning and implementation of project. RDM will a member of project implementation unit and support monitoring of objective achievement and information sharing.
<b>Provincial Government Agencies</b>	

<i>Stakeholder</i>	<i>Relevance</i>
Province Directorate of Ministry of Food, Agriculture and Livestock (PDAs)	PDAs will be the member of project implementation unit in the region. They are responsible for dissemination of information about improving the conservation of natural resources and sustainability; improve of agricultural practices and farmers training activities. PDAs will cover coordination and implementation of the Project on the provincial level (including all project sites) and they will support impact and progress monitoring and information dissemination on the rural areas.
District Directorates of MFAL	Responsible for transferring of information about conservation of natural resources and sustainability and making collaboration with farmers, farmers unions, universities and NGOs.
<b>International Development Organizations and Donors</b>	
FAO	FAO is the main partner for the project. In the field of sustainable land management, FAO: <ul style="list-style-type: none"> <li>• promotes sustainable forest management by placing technical expertise in forestry at the disposal of member countries through field projects,</li> <li>• serve to climate smart agriculture and related activities,</li> <li>• provide intensive experiences to reduce GHG emissions from deforestation and forest degradation as well as from agricultural practices.</li> </ul> FAO has considerable experience and expertise and a proven comparative advantage in sustainable forest and land management and climate change focal areas of the GEF. FAO will be a member of the Project Steering Committee and executive partner of the project (with MFWA). FAO will support coordination and implementation of the Project as well as impact and progress monitoring and information dissemination.
UNEP	One of the core areas of UNEP is environment and sustainable development. UNEP has supported many environmental projects. The Project will establish close collaboration with UNEP to exchange information and experience.
<b>Academic and Scientific Organizations</b>	
The Scientific and Technological Research Council of Turkey (TÜBİTAK)	TÜBİTAK is the leading agency for management, funding and conduct of research in Turkey, established in 1963. TÜBİTAK is responsible for promoting, developing, organizing, conducting and coordinating research and development in line with national targets and priorities. TÜBİTAK supports innovation, academic and industrial R&D studies and, in line with national priorities, develops scientific and technological policies and manages R&D institutes, carrying on research, technology and development studies. Furthermore, TÜBİTAK funds research projects carried out in universities and other public and private organizations, conducts research on strategic areas, such as sustainable development.
Ankara University, Faculty of Agriculture	The Faculty of Agriculture of the Ankara University is one of the oldest and most developed academic organizations in Turkey. The project will benefit from the experience and research capacity of the organization and will coordinate activities with it.
Turkish Water Institute	The Institute works under MFWA and aims to develop short and long-term strategies and policies for good governance of water. The organization undertakes work related to the hydrological and agricultural drought as well. The Project will coordinate the activities with the Institute.
Forest Soil and Ecology Research Institute	The institute is based in Eskişehir province and works under MFWA. Founded in 1963, the organization has a long history and knowledge of forest soils, ecology and environmental problems in forests.
Forest Trees and Seeds Research Institute	Founded in 1964 and based in Ankara, this institute specializes in tree breeding and technologies regarding tree seeds.
Soil Fertilizer and Water Resources Central Research Institute	The Institute aims to carry out high quality researches that can satisfy the demands of Turkish agricultural sector in the area of soil, fertilizer and water resources and also support the MFAL both in national and international levels in terms of research and policy making through concentrating on some activities like in-service trainings, seminars and courses. Based in Ankara, the Institute plays a key role in national and international capacity building programs.
<b>Private sector</b>	
Farmers and livestock producers	The project will work with hundreds of farmers and livestock producers in the region. These producers will be critical stakeholders.

3. *Gender Equality and Women's Empowerment.* Are issues on gender equality and women's empowerment taken into account? (yes  /no ). If yes, briefly describe how it will be mainstreamed into project preparation (e.g. gender analysis), taking into account the differences, needs, roles and priorities of women and men.

39. Acknowledging that women still play the most important role in sustainable natural resource management, as home-makers, as farmers and land managers, the project will pay special attention to the involvement of women, especially in capacity building and policy planning activities. Adequate gender screening of the project will take place in the preparation phase in order to ensure equal benefit for both men and women.

40. Women will be encouraged to participate in all project activities, including in data collection and analysis, policy development and educational and awareness raising activities. During preparation and implementation of the project, efforts will also be made to better inform women and to support interventions that will contribute to inclusion of women in governance of land and forest resources, allow access to, and support their involvement in, and management of all SLM and SFM actions. The activities of the proposed project should result in an increase in household incomes, both through cost reductions and productivity increases, and should increase employment opportunities in rural areas and contribute to reducing rural migration. The promotion of FFS activities through group structures will enhance social development in participating rural communities. The project will seek to raise awareness of gender issues in both participating ministries by including women in all activities following FAO gender guidelines, including demonstrations, trainings and other capacity building activities.

41. The project is thus fully in line with the goal of FAO's Policy on Gender Equality to achieve equality between women and men in sustainable agricultural production and rural development for the elimination of hunger and poverty. Women should be enabled to participate equally with men as decision-makers in rural institutions and in shaping laws, policies and programmes; both sexes should have equal access to and control over decent employment and income, land and other productive resources, women and men should have equal access to goods and services for agricultural development and to markets, and women's work burden should be reduced through improved technologies, services and infrastructure. Indicators to measure these gendered benefits will be developed more fully in the project preparation phase.

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

Risk Type	Probability	Mitigation Measures
Lack of close and collaborative cooperation between many institutional stakeholders	High	Close and collaborative cooperation between many institutional stakeholders will be essential for the project to achieve its stated goal and objectives. This will be achieved through involvement of all stakeholders from the early beginning of the project, preparation of project document and through establishment of working group for the project implementation as well as the project steering committee. Promotional materials and communication strategy will be developed and, regular meetings and presentation of project results in different phases of the project implementation will be organised.
Unclear responsibilities of institutions at national and local level	Medium	Clearly defined and legally prescribed responsibilities of different institutions as well as involvement of all of responsible institutions are the main project goals. Moreover, the project will support improvement of institutional framework and through that ensure sustainability of the project results after its finalization.
Low technical capacity at national and local level	Medium	Capacity and technical expertise of stakeholders are weak. To mitigate this risk, the project will support a capacity building through development of program for trainings during the project, taking into account specific needs of stakeholders. It will also support a national Information Sharing Forum.
Natural disasters	Medium	Natural disasters, such as drought and floods, may impede the adoption of new technologies. The project is designed as a multi-year intervention, where

		demonstrations can be run over several seasons. The project will also be linked to the drought early warning services of the MFWA.
Climate change	Low	The MFAL and the MFWA, with support of FAO technical expertise, are in a good position to adopt new research results on how to enhance resilience of SLM and SFM practices to climate change and, when necessary, adapt local livelihood strategies, which is supported under output 2.2.1 of the project.

5. *Coordination.* Outline the coordination with other relevant GEF-financed and other initiatives.

42. The proposed project will be directly coordinated with and greatly benefit from the ongoing FAO/GEF full-size project on “Sustainable Land Management and Climate Friendly Agriculture in Konya (Turkey)” which aims at rehabilitation of degraded drylands, including forests, and mainstreaming of biodiversity conservation into production landscapes. Specifically, (i) preparation of integrated SLM and biodiversity conservation land-use plans in pilot areas; (ii) certification of forest and rangeland landscapes by internationally recognized environmental standards that incorporate biodiversity considerations; (iii) establishment of a biodiversity monitoring system; (vi) quantification of ecosystem services values in pilot areas; and (v) relevant enabling environment activities, will be the main outcomes to benefit from and to coordinate with under the proposed project.

43. The project will also benefit from the recently finalized FAO/GEF project on “Alignment of Turkey's National Action Plan with UNCCD 10-Year Strategy and Reporting Process”. Special attention will be given to mainstreaming biodiversity conservation into land-use strategic planning processes and the monitoring system to be established for UNCCD reporting.

44. As Turkey has become one of the main contributors to the second phase of the Central Asian Countries Initiative on Land Management (CACILM), renamed “Integrated natural resources management in drought-prone and salt-affected agricultural production systems in Central Asia and Turkey”, this FAO/GEF project will offer many opportunities for coordination, upscaling and creating mutual benefits. CACILM2 will, among others, focus on (a) Integrating resilience across natural resources management (NRM) sectors and production landscapes; (b) Upscaling of a proactive drought risk management (DRM) approach and innovative integrated natural resources management (INRM) technologies in production landscapes; (c) Enhancing knowledge of the costs of land degradation and benefits of INRM and drought preparedness to national economies to inform policy and investment decisions; and (d) Enhancing multi-country collaboration and information sharing to promote investment for INRM scaling up.

45. The global FAO/WOCAT/GEF project on “Decision Support for Mainstreaming and Scaling up of Sustainable Land Management” can provide harmonized tools for land degradation assessment, land-use systems diagnostics and best SLM practices assessments to support programmatic processes for SLM upscaling. In this framework, Turkey will receive technical assistance on land use mapping in support of SLM planning and decision making and, improve capacities for mainstreaming of SLM best practices to combat land degradation and increase resilience to CC impacts.

46. The global Economics of Land Degradation (ELD) initiative, launched by UNCCD together with the Government of Germany for economic valuation of DLDD with the view to adapt and mainstream ELD best practices into national strategies for SLM. LADA and its different databases were identified as key sources of information and close cooperation on generating evidence-based knowledge on the full economic valuation of land degradation and benefits of INRM (including SLM technologies) will be established.

47. The proposed project will also benefit from the methods for integration of biodiversity conservation into forest landscape management developed under the ongoing UNDP/GEF project on “Integrated Approach to Management of Forests in Turkey”, with demonstration sites in high conservation value forests in the Mediterranean region. This project promotes an integrated approach at landscape level to the management of high conservation value forests in the Mediterranean region to secure, among others, biodiversity mainstreaming.

48. Coordination and benefits can be achieved with the Turkish project on “Rehabilitation of Degraded Agricultural Lands (RDAL-STATIP)” which includes re-identification of land-use classification in 16 provinces to update the nationwide Province Directorates. These practices will help to determine land-use changes. The experience with capacity development during the Çoruh River Watershed Rehabilitation Project (2012-2018) will inform similar activities under the proposed project. This may include activities such as workshops, practical training courses in connection with sub-projects and implementation, and technical study tours or training visits for the project implementation staff abroad. These diversified activities cover both local communities and technical staff.

49. The National Basin Management Strategy of Turkey (NBMS) will be one of major projects with which the present proposal will coordinate. The results and the recommendations of NBMS will lead the project to identify participatory measures that would maximize social economic benefits and build capacities among key stakeholders, including local governments, communities and the private sector. This will be part of the process to strengthen the resilience of rural economies and ensure sustainability of the natural resource base.

50. Finally, lessons learnt can be taken from the “Murat Watershed Rehabilitation Project” which aims at increasing household income by preventing natural resource degradation. Critical features of this project are to link natural resource rehabilitation and sustainable management with diversifying and improving natural resource-based household income generating activities.

#### **The GEF Agency’s comparative advantage for implementing the project**

51. FAO supports its member countries on a wide range of complementary SLM technologies and approaches (such as conservation agriculture, integrated land and water management and local land planning) through developing tools, methodologies and providing training, information and advisory services for institutional strengthening, policy reform and national programming. FAO is the leading agency in gathering and disseminating data and information related to land degradation and SLM, which are built upon scientific knowledge, local experience and farmer innovation, available through FAO’s web sites and information systems such as FAOSTAT, TERRASTAT, LRIS, and GTOS. FAO is also a leading partner in several international initiatives, such as the World Overview of Conservation Approaches and Technologies (WOCAT), the Asia-Pacific Agro-forestry Network (APAN), and the Participatory Watershed Management in Asia Network (WATMANET). The soon to be established “Central Asian Desert Initiative”, funded under the International Climate Initiative (IKI) will also see FAO as the main implementing agency and aims at improving desert landscape management for conserving biodiversity and providing ecosystem goods and services in Uzbekistan, Turkmenistan and Kazakhstan. Regarding climate change mitigation, FAO has also proven experience in climate change mitigation in agriculture and forestry through carbon sequestration, substitution and conservation, assessing carbon stocks and modeling win-win scenarios of carbon sequestration through land use change, and capacity development in developing countries.

52. The FAO Sub-Regional Office for Central Asia has expertise in a multi-disciplinary team on land degradation and sustainable management of natural resources including experts in forestry, agriculture and community management of watersheds and recovery of degraded landscapes who will be supervising the project implementation and providing technical assistance to the project, with the support of Land and Water Division and Forestry Department at FAO Headquarters in Rome.

6. *Consistency with National Priorities.* Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes  /no  ). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.

53. The proposed project is consistent with the various strategies, programs and action plans promulgated by the Government of Turkey (GoT) pursuant to its commitments under the relevant international environmental conventions, as well as with the relevant national development plans adopted by the GoT. With respect to the environmental conventions, i.e. the UN Convention to Combat Desertification (UNCCD), and the UN Framework Convention on Climate Change (UNFCCC), the proposed project is fully consistent with and will contribute significantly to implementation of the following strategies, programs and action plans:

54. The National Action Program on Combating Desertification (2006) calls for identifying the causes of desertification and specifying appropriate responses for addressing the problems caused. The proposed project will contribute specific responses to address a number of the causes of desertification identified in the National Action Program, including (i) mismanagement of agricultural lands and inappropriate agricultural practices; (ii) unplanned, uncontrolled over-grazing of rangelands and pastures; (iii) the lack of due regard for botanical, cultural and physical soil conservation measures; and (iv) soil degradation from wind and water erosion. Upon ratification of 10- Year Strategy of UNCCD, MFWA has revised its approach through a strategy and NAP. The strategy and plan is targeting 2015-2023 period in a harmony with UNCCD 10-Year Strategy. It is a framework plan organizing and coordinating all relevant organizations' approaches and plans regarding the desertification with a key emphasis on biodiversity and climate change mainstreaming

55. Pursuant to the UNFCCC, the GoT formulated its National Climate Change Strategy (2010), which specifically addresses land use, agriculture and forestry strategies in its chapter on greenhouse gas (GHG) emission control. The proposed project will support many of the short, medium and long-term strategies identified for mitigating GHG emissions (e.g. improved agricultural techniques, adoption of proven technologies for carbon sequestration and/or absorption in soil (and monitoring) and methane gas capture, afforestation and rehabilitation of degraded lands with drought tolerant species and plant varieties). Furthermore, the project addresses priorities identified in the GoT's new Climate Change Action Plan 2011-2023 (2011), such as increasing the sink capacity of and decreasing GHG emissions from the agricultural sector, as well as increasing carbon sequestered in forests and reducing deforestation and forest damage. Determination of carbon capture potential is one of the major activities in the Action Plan and the project will support achievement of this priority. Furthermore, the project will directly address one of the cross-cutting issues requiring capacity development, namely sustainable land management, identified in Turkey's National Capacity Self Assessment under Rio Conventions (2011).

56. With respect to GoT national development plans, the project will directly contribute to the Tenth Development Plan of Turkey (2014-2018) currently under implementation. The plan clearly prioritizes the Management of the Soil and Water Resources through "management systems" aiming at the sustainable use of water and soil. Action plans are the second level policy and implementation documents for national and regional context. The project's promotion of integrated management of the country's lands and other natural resources, including forests, rangelands and agricultural production landscapes, will significantly support this priority of the Development Plan. Moreover, the project will clearly support implementation of the GoT's National Rural Development Plan (2009-2013), which targets the conservation of agricultural areas, pastures and forests, including soil and water resources in areas that will be integrated into forest regimes. The Rural Development Plan underscores the relationship between rural poverty and natural resource degradation, recognizing a significant increase in recent years in erosion and degradation of land and water resources in the country, in many cases due to improper farming techniques and increasing climate variability (droughts, floods and landslides). To mitigate these processes, the Plan gives priority to strategies, measures and activities that address desertification and promote proper management of land and water land resources. The agricultural and natural resources management practices included in the proposed project will directly contribute to the objectives and implementation of this Rural Development Plan.

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

57. Given the innovative nature of the initiative and the LDN concept, knowledge management and dissemination of results is a key part of the Project strategy. Knowledge management activities are planned from the onset and will support replication and upscaling both at national and regional level.

58. Under Component 2, the Project will establish tools and mechanism to collect and systematize information on land degradation and ecosystem services and will improve the reporting mechanism on LDN. The information collected will feed into a mechanism for decision support for LDN schemes. Component 1 on creating an enabling

policy and institutional environment for LDN mainstreaming and component 3 on field testing the LDN approach will generate lessons and experiences that will be widely shared.

59. The dissemination, monitoring and evaluation system to be created under component 4 will establish tools and mechanisms to systematically collect data and to document lessons learnt. Project-related best-practices and lessons-learned will be published using the WOCAT format to facilitate dissemination at national and regional levels. LDN guidelines based on the project experiences will also be published to promote replication and scaling up of the LDN approach.

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

**A. RECORD OF ENDORSEMENT<sup>9</sup> OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):**  
 (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this SGP OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr Akif Özkaldı	Undersecretary	MFWA	07/22/2016

**B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF policies<sup>10</sup> and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Gustavo Merino Director Investment Centre Division Technical Cooperation and Programme Management FAO Viale delle Terme di Caracalla (00153) Rome, Italy <a href="mailto:TCI-Director@fao.org">TCI-Director@fao.org</a>		29 August 2016	Peter Pechacek, Forestry Officer, FAO Sub- regional Office for Central Asia		<a href="mailto:Peter.Pechacek@fao.org">Peter.Pechacek@fao.org</a>
Jeffrey Griffin FAO Senior GEF Coordinator Email: <a href="mailto:Jeffrey.Griffin@fao.org">Jeffrey.Griffin@fao.org</a> Tel: +3906 5705 5680					

**C. ADDITIONAL GEF PROJECT AGENCY CERTIFICATION (APPLICABLE ONLY TO NEWLY ACCREDITED GEF PROJECT AGENCIES)**

For newly accredited GEF Project Agencies, please download and fill up the required GEF Project Agency Certification of Ceiling Information Template to be attached as an annex to the PIF.

<sup>9</sup> For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

<sup>10</sup> GEF policies encompass all managed trust funds, namely: GEFTF, LDCE, and SCCF

