



## **Creating an Enabling Environment to Support LDN Target Implementation Through Strengthening Capacities and Establishing an LDN Monitoring and Reporting System in Bosnia and Herzegovina**

### **Part I: Project Information**

#### **GEF ID**

10830

#### **Project Type**

MSP

#### **Type of Trust Fund**

GET

#### **CBIT/NGI**

CBIT **No**

NGI **No**

#### **Project Title**

Creating an Enabling Environment to Support LDN Target Implementation Through Strengthening Capacities and Establishing an LDN Monitoring and Reporting System in Bosnia and Herzegovina

#### **Countries**

Bosnia-Herzegovina

#### **Agency(ies)**

UNEP

#### **Other Executing Partner(s)**

FAO

#### **Executing Partner Type**

GEF Agency

#### **GEF Focal Area**

Land Degradation

#### **Taxonomy**

Focal Areas, Climate Change, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, Land Degradation, Land Degradation Neutrality, Sustainable Land Management, Improved Soil and Water Management Techniques, Sustainable Forest, Sustainable Agriculture, Stakeholders, Local Communities, Civil Society, Non-Governmental Organization, Communications, Awareness Raising, Education, Public

Campaigns, Type of Engagement, Information Dissemination, Participation, Consultation, Gender Equality, Gender Mainstreaming, Beneficiaries, Women groups, Gender-sensitive indicators, Gender results areas, Capacity Development, Participation and leadership, Food Systems, Land Use and Restoration, Integrated Programs, Capacity, Knowledge and Research, Knowledge Exchange, Knowledge Generation

**Rio Markers**

**Climate Change Mitigation**

Climate Change Mitigation 1

**Climate Change Adaptation**

Climate Change Adaptation 0

**Duration**

24 In Months

**Agency Fee(\$)**

82,008.00

**Submission Date**

9/15/2021

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

<b>Programming Directions</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
LD-2-5	GET	863,242.00	6,563,000.00
<b>Total Project Cost (\$)</b>		<b>863,242.00</b>	<b>6,563,000.00</b>

**B. Indicative Project description summary**

**Project Objective**

To foster a coherent policy environment and track progress towards achieving the national LDN targets.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$ )	Co-Fin Amount(\$)
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1: Creating an enabling environment for LDN	Technical Assistance	Outcome 1.1: Improved institutional, legal and policy framework for LDN implementation	Output 1.1.1: Analysis of the current institutional and legal set up in the country to assist in the identification of the key/hosting LDN institution responsible for monitoring and reporting (with clearly determined responsibilities) on LDN progress.	GET	548,218.00	5,936,132.00
		<i>Indicator:</i>  <i>LDN monitoring and reporting is integrated into at least 4 planning documents (2 per entity)</i>				
		Outcome 1.2: Enhanced LDN target implementation capacity of relevant stakeholders	Output 1.2.1 Capacity development program in place on LDN target setting and implementation for BiH FBiH/RS Government staff, smallholders farmers and other relevant authorities (including the key/hosting institution)			
		<i>Indicator:</i>  <i>300 individuals (150 women and 150 men) receiving support through the capacity development program</i>	Output 1.2.2: Demonstrations of SLM and SFM best practices in forests, rangelands and croplands that provide carbon benefits on 2			
		<i>10,000hectares under best practices</i>				

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 2: Establishing LDN monitoring and reporting system and development of LDN roadmap	Technical Assistance	<p>Outcome 2.1: LDN monitoring and reporting capacity improved at national and sub-national levels to support LDN in production landscapes in line with the Global Support Programme III</p> <p><i>Indicator:</i></p> <p><i>At least 2 National/sub-national LDN reports benefit from the land monitoring and information system and acknowledge the contribution of the information system.</i></p>	<p>Output 2.1.1: Monitoring and information sharing system for LDN and SLM indicators operating at the national and subnational and hosted by key institutions (identified during output 1.1.1)</p> <p>Output 2.1.2: Road map and guidelines for LDN monitoring and UNCCD reporting published and disseminated to key stakeholders at the subnational level.</p>	GET	236,548.00	30,232.00
Sub Total (\$)					784,766.00	5,966,364.00
<b>Project Management Cost (PMC)</b>						
GET			78,476.00		596,636.00	
Sub Total(\$)			78,476.00		596,636.00	

**Project Management Cost (PMC)**

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<b>Total Project Cost(\$)</b>	<b>863,242.00</b>	<b>6,563,000.00</b>
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**C. Indicative sources of Co-financing for the Project by name and by type**

<b>Sources of Co-financing</b>	<b>Name of Co-financier</b>	<b>Type of Co-financing</b>	<b>Investment Mobilized</b>	<b>Amount(\$)</b>
Recipient Country Government	Ministry of Agriculture, Forestry and Water Management of Republika Srpska	In-kind	Recurrent expenditures	6,300,000.00
Donor Agency	FAO	Grant	Investment mobilized	263,000.00
<b>Total Project Cost(\$)</b>				<b>6,563,000.00</b>

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

FAO will mobilize investment from ongoing programs and grants implemented by the national office at Bosnia and Herzegovina including capacity building programs to strengthen the agriculture and forestry sectors as described in the baseline section below. The Ministry of Agriculture, Forestry and water Management from Republika Srpska will provide in kind co-finance in amount of USD 6,300.00.00 through already ongoing projects in the pilot sites, named ?Construction of Irrigation Systems in Bijeljina? and ?Construction of Irrigation Systems in Trebinje?.



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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNEP	GET	Bosnia-Herzegovina	Land Degradation	LD STAR Allocation	863,242	82,008	945,250.00
Total GEF Resources(\$)					863,242.00	82,008.00	945,250.00

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

PPG Amount (\$)  
50,000

PPG Agency Fee (\$)  
4,750

Agenc y	Trus t Fun d	Country	Focal Area	Programmin g of Funds	Amount(\$ )	Fee(\$)	Total(\$)
UNEP	GET	Bosnia- Herzegovin a	Land Degradatio n	LD STAR Allocation	50,000	4,750	<b>54,750.0 0</b>
Total Project Costs(\$)					<b>50,000.00</b>	<b>4,750.0 0</b>	<b>54,750.0 0</b>

## Core Indicators

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
10000.00	0.00	0.00	0.00

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

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

**Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)**

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

Type/Name of Third Party Certification

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
10,000.00			

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

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

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

Title	Submitted
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**Indicator 6 Greenhouse Gas Emissions Mitigated**

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	280000	0	0	0
Expected metric tons of CO <sub>2</sub> e (indirect)	0	0	0	0

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	280,000			
Expected metric tons of CO <sub>2</sub> e (indirect)				
Anticipated start year of accounting	2023			
Duration of accounting	20			

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

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

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

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

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

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

	<b>Number (Expected at PIF)</b>	<b>Number (Expected at CEO Endorsement)</b>	<b>Number (Achieved at MTR)</b>	<b>Number (Achieved at TE)</b>
<b>Female</b>	1,100			
<b>Male</b>	1,100			
<b>Total</b>	2200	0	0	0

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

## **Part II. Project Justification**

### **1a. Project Description**

#### **Government System**

Land management issues in Bosnia and Herzegovina (BiH) depend on the government structure of the country, hence the responsibilities on land and environmental issues are governed by different sub-national institutions. Bosnia and Herzegovina comprise 4 tiers of governance, at the State, Entity, Canton and municipal levels. The state of BiH consists of two Entities: the 'Federation of Bosnia and Herzegovina' (FBiH) and the 'Republika Srpska' (RS). The FBiH consists of ten federal units, the Cantons, which have their own Constitution, Parliament, Government and judicial powers. The Cantons under FBiH are further divided into seventy-nine municipalities and cities, which constitute the local self-government units. The other entity, the RS is a unique and indivisible constitutional and legal entity comprising one level of local self-government with 57 Municipalities.

#### **Global and National Environmental Problems**

Bosnia and Herzegovina (BiH) is located in South-eastern Europe, in the central part of the Balkan Peninsula, and covers an area of 51,129 km<sup>2</sup>.

BiH's climate varies with its topography: Mediterranean climate in the Adriatic coast and lowland Herzegovina, moderate continental climate in the plains and hills in the center of the country and an alpine climate in the mountains. Since 1990, the most frequent natural hazards in BiH have been floods, extreme temperatures, droughts and storms. Climate change and increased frequency and intensity of extreme climate events in Bosnia and Herzegovina have caused increased pressure in the sectors of agriculture, water management, health, forestry and tourism, as well as in management of water resources and protected areas. Limited knowledge exists on climate changes specific to BiH, but data for Europe's Mediterranean region suggest that mean seasonal increases in temperature will average 1°C by 2030, with the highest increases occurring in the summer. Temperature increases will be more pronounced in the inland areas. An increase in high-temperature extremes and meteorological droughts across Europe will likely also affect BiH. (Third National Communication to UNFCCC, 2017).

Land degradation is an important aspect of production, but it can severely influence livelihoods by limiting the availability of vital ecosystem services (including food and water), increasing the risk of poverty and ultimately forcing people to migrate. As a major global challenge, land degradation is one of the underlying threats to biodiversity, ecosystem stability, and global climate. The interconnectivity between ecosystems across multiple scales means that land degradation can trigger destructive processes that have cascading effects across the entire biosphere.

Human pressure affects the landscape characteristics, which affect the level of land sensitivity to degradation. Land abandonment and unsustainable use of rural and peri-urban areas are usually

considered the mainland cover-based drivers of land degradation.<sup>[1]</sup> Changes in land cover in Bosnia and Herzegovina for the periods 2000-2012 show that 44,968 ha of land cover types have changed. There have been mainly two types of change that have increased land's sensitivity to degradation: decrease in croplands (converted into artificial areas) and increase of shrubs (transition of forest into shrubs, grassland and sparsely vegetated areas).

The analysis shows that in the FBiH land productivity has reduced on 11,400 ha, while early signs of reduction were observed on 13,800 ha. A total area of land that is stable but under stress, from the productivity viewpoint, amounts to 410,500 ha. Productivity reduction in the RS is correlated with loss of agricultural land and forests, the occurrence of extreme events like floods, drought and forest fires especially in Herzegovina as very vulnerable area. The areas of intensive agricultural production (Posavina and Semberija), as well as the territory of Herzegovina, are the most affected regions. Cropland is characterized by decreased land productivity on 461 km<sup>2</sup> or 1,84% territory for the 2000-2012 period. Land productivity of forests, shrubs, grasslands and sparsely vegetated land has been decreased across 110 km<sup>2</sup> (0.44% of the total territory). Stable productivity without stress is identified on an area of 3,739 km<sup>2</sup> (14,94% of the total territory).

Soil organic carbon (SOC) stocks are of importance because of their role in the global carbon cycle. According to the data, the carbon content ranged between 0 to 174 t/ha, while the average is 111,7 t/ha. The category with carbon stocks amounting 50-110 t/ha represents the soils of medium structure stability, fertility and water retention capacity. This category is predominant in the areas where agricultural production is the most intense in the Federation of BiH. In Republic of Srpska, SOC indicates average content of 104.4 t/ha and loss of 74,609 tons of C. Cropland are characterized with lower SOC (93.1 t/h?) than forests (110 t/ha) and sparsely vegetated land (118.2 t/ha). Low SOC content is related to areas of intensive agriculture.

During the the post-conflict and economic transition period, Bosnia and Herzegovina (BiH) has been facing numerous social, economic and environmental problems among which land degradation stands out as one of the most crucial ones. Pursuant to a decision of the BiH Parliamentary Assembly, Bosnia and Herzegovina acceded the UNCCD in 2002 and became its full-fledged Party on 26th November 2002. Land use in BiH is affected by inadequate and unsound planning practices of resource utilization. In most cases, loss of agricultural land is caused by unplanned construction of residential and industrial facilities and infrastructure, unsustainable agriculture practices, wildfire, unreasonable exploitation of mineral raw materials and excessive erosion caused by deforestation and inadequate treatment of steep slopes, but also abandoned land due to internal and external migrations for the past 25 years. In BiH, 1.2 million people live on degrading agricultural land. The share of rural residents, who inhabit degraded agricultural land, is around 52% of the total rural population.

The United Nations Convention to Combat Desertification (UNCCD) has defined land degradation neutrality (LDN) as "a state whereby the amount and quality of land resources necessary to support ecosystem functions and services and enhance food security remain stable or increase within specified temporal and spatial scales and ecosystems". It means securing enough healthy and productive natural resources by avoiding degradation whenever possible and restoring land that has already been

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degraded. At its core are better land management practices and better land use planning that will improve economic, social and ecological sustainability for present and future generations.

Planning for neutrality involves counterbalancing anticipated losses with measures to achieve equivalent gains, within individual land types, where land type is defined by land potential. Neutrality is assessed by monitoring the LDN indicators relative to a fixed baseline, and it needs to be maintained over time, through land-use planning that anticipates losses and plans gains. The LDN mechanism for neutrality comprises the counterbalancing of anticipated losses (significant negative changes/degradation) in land-based natural capital with planned gains (significant positive changes/improvements), within unique land types. In practice, projected negative changes in land-based natural capital (anticipated losses) are counterbalanced with actions to achieve gains through reversing degradation (anticipated gains).

### **Institutional setup**

In accordance with Article 9 of the Law on ministries and other administrative bodies of BiH, the BiH Ministry of Foreign Trade and Economic Relations (MoFTER) is, inter alia, competent for defining policies, basic principles, coordinating activities and harmonising plans of entity authorities and bodies at the international level in the areas of, inter alia, agriculture, energy, environmental protection, development and use of natural resources. Department for agriculture, food, forestry and rural development<sup>[2]</sup> of MoFTER coordinates agriculture land issues at the state level while Department for Environmental Protection coordinates environmental protection issues.

Several legal acts at the entity, levels incorporate the concept of sustainable management of land and its resources. Thus, land protection against degradation is addressed by various sectoral regulations governing spatial planning, protection of the environment and water, agricultural land, forests and forest land and mining.

Aside from these three ministries (BiH Ministry of Foreign Trade and Economic Relations (Department for agriculture, food, forestry and rural development), FBiH Ministry of Agriculture, Water Management and Forestry and the RS's Ministry of Agriculture, Forestry and Water Management (UNCCD Focal Point), at the level of the FBiH, cantons have their own cantonal ministries that cover these areas. Institutions do not exchange information and data to coordinate work on land status monitoring, analysis and protection since there is no official mechanism that demands it.

### **Causes of Land Degradation**

Climate Change: Climate change-induced land degradation is very important in BiH, revealed through floods, drought and frequent wildfires in the recent decades. As an additional form of land degradation, floods, drought and wildfires are becoming more and more frequent over the past several years. Data of the Federal Office for Civil Protection indicates that at the level of FBiH, for the period 2010-2012,

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flood and landslide-induced damages amounted to approximately USD 51 million, while drought-induced damages amounted to USD 91,806,678.12. On the other hand, official reports of the Ministry of agriculture, forestry and Water Management of the RS, showed total economic damage caused by drought and reflected through the reduction of corn and soybean production amounted to USD 50,480,182.94. Looking at the production of vegetables in the open air, the damage caused by the drought in 2017 amounted USD 26,610,910.59. Damage in the area of fruit production amounted USD 38,364,705.88. Therefore, weather conditions have significantly affected the agrarian sector of RS, with the most significant agricultural regions (Semberija, Posavina, Lijevo Polje and Herzegovina) seriously affected by drought. This caused a decrease in production value of about a 115million USD in just one year in RS.

Industry: Industry contaminates land through toxic pollutants and by deposition of pollutants directly to the air (dry and wet deposition). The emission of aero-pollutants sooner or later falls on the ground in an altered or non-altered form. Pollutants contaminate not only the land itself but easily pass through soil and contaminate groundwater. Plants absorb the pollutants from soil and pass them up the food chain of various consumers, to humans. Thermal power plants and cement production facilities are the main sources of dust and ash that contaminate arable land in their vicinity.

Surface mining of various raw materials: BiH has a considerable presence of coal, iron ore, and bauxite. Coal is exploited at an area of 18,000 ha whereas the waste material disposal area takes up nearly 6,000 ha. Opencast mining or surface exploitation of mineral ore (coal, iron ore, bauxite and clay) has left about 15,000 ha of damaged land to date and the main consequences of such exploitation are direct loss of land and land out of use in areas where waste material is disposed. Quite often, heavy metals contamination causes permanent distortion of the physical features of the soil.

The laws on mining provide for the mandatory remediation of degraded areas and a land reclamation plan must be incorporated into the mining projects. In most cases, land reclamation is implemented by applying technical and biological measures, after which mined out areas can be used for agriculture or forestry. According to the Law on Environmental Protection of FBiH[3]<sup>3</sup> and the Law on Environmental Protection in RS[4]<sup>4</sup>, the mines producing more than 50,000 tons annually, or those covering an area larger than five hectares are obliged to have an environmental permit, carry out regular monitoring of emissions and report to competent institutions.

Unsustainable Agricultural Practices: Agriculture, being one of the essential economic activities and for economic development for BiH, has a great influence on land processes and various types of its destruction and degradation. Environmental pollution caused by agricultural activities is currently a topic of concern not only to many experts but also to the general public, especially in areas having issues with increased concentrations of nitrates, phosphates, pesticide residues and other pollutants in drinking water and soil, which often brings into question the quality of certain agricultural products. In

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agricultural land, protection and preventive actions are related to the preservation of its physical and chemical properties, and particularly to the stability and character of its structure. The structure of agricultural land can be seriously deteriorated by compaction, which can be induced in various ways. Most often it is the use of heavy agricultural machinery, poor tillage especially if performed during periods of bad weather conditions and rainfall (excessively wet soil should not be tilled). The soil structure can also be disturbed by the improper application of mineral and organic fertilizers. For example, high doses of low-quality mineral fertilizers, their poor chemical composition, etc., can have an adverse impact not only on soil structure but also on environmental pollution (contamination of soil, groundwater, waterways, rivers, lakes, seas, etc.). In addition, high doses of mineral fertilizers lead to soil depletion due to high yields (loss), especially in organic matter and calcium, which have a direct impact on the stability of the soil structure. The lack of organic matter (humus) in the soil can lead not only to the deterioration of its structure but to the overall condition of its physical and chemical properties. Besides, inadequate application of organic fertilizers (high doses, poor quality raw manure, and poor application methods, etc.) can also lead to secondary effects such as soil pollution and invasion of weeds, leaching of waste materials, especially nitrate and ammonium into ground and surface water resources. These pollutions and contaminations are primarily related to nitrates, but also soil contamination with heavy metals. Soil contamination is part of general environmental pollution and should therefore be treated as such. The main soil pollutants are primarily agrochemicals (fertilizers and pesticides). In the lowland areas of Posavina, in river valleys on alluvial deposits, and in karst fields where intensive production of crops, vegetables, and fruit is carried out, there is certainly a considerable uptake of pollutants into terrestrial ecosystems, being a consequence of the application of more chemicals in the form of mineral fertilizers. Vineyards and orchards, as well as plow fields, are normally situated on sloping relief surfaces and locations. In addition to pollution caused by the use of chemicals, erosion of varying intensity occurs, which further affects the removal of soil particles and the pollution of surface watercourses. Different types of soil, as well as the amount and distribution of rainfall in certain parts of Bosnia and Herzegovina further contribute to the impact of agricultural activities on the state and quality of the environment. An important condition for sustainable land management is the choice and type of agricultural production in accordance with the soil properties and the climate conditions of the area. It is a prerequisite for stable economic development and environmental risk reduction. Land degradation should be avoided, and the previously degraded land should be gradually rehabilitated. Accordingly, soil fertility should be maintained or improved by choosing the appropriate cultivation method and agricultural practices for a given crop. Regular soil fertility control should be performed at least once every five years to obtain reliable data on the condition, fertility, and needs for its improvement. The priority of achieving high yields and producing good quality products is achieved by the use of organic fertilizers, and the use of manure and mineral fertilizers should meet crop requirements for nutrients with a minimum of environmental pollution. The quantities should be based on the needs of the plants and the nutrient content of the manure. The total amount of nitrogen applied to the soil must not exceed 170 kg/ha (Nitrate Directive). The Good Agricultural Practice (GAP) Code forms the minimum standard for farm management that includes the protection of natural resources environmental management, workforce safety, animal health and welfare, food security, and health protection. The Code of Good Agricultural Practice is just a set of recommendations to help farmers improve their performance. It is normal for good agricultural practice to be supported by legislation. Implementing the Code in agricultural practice will be easy for some farmers, but in some areas, it will be difficult to implement because of the natural conditions, especially

in marginalized areas. The Code requires farmers to contribute, to the best of their abilities, to the conservation of the natural environment, the conservation of soil fertility, and the maximum utilization of potential aimed at food production and the achievement of the quality of agricultural products. In order to minimize the negative impact of agricultural activities on the condition and degradation of land, it is necessary to take a number of measures and procedures that will help preventive conservation of land, improvement of the level of degradation, or its natural potential. One of the important procedures is to know the natural properties of the soil, which is achieved through detailed pedological research and fertility studies. The identification and selection of a set of soil quality parameters that will be dynamically monitored during the monitoring and research is of particular importance.

### **Pilot Sites**

The most vulnerable regions affected with land degradation are identified during LDN Target setting process in BiH, implemented separately by each entity (FBiH and RS). Taking into account the state of the indicators in LDN Report (2018), the two most important hot spots identified for the Federation of Bosnia and Herzegovina (FBiH) are: Tuzla canton, from the standpoint of land degradation under anthropogenic influence; Herzegovina (Herzegovina-Neretva Canton and Canton 10) from the standpoint of natural influences-drought and fires, followed by erosion as a result of degradation processes. This project will address the Tuzla Canton for FBiH.

**Tuzla Canton** is the most degraded area in FBiH[5]<sup>5</sup>. The abandonment of traditional grazing methods in Tuzla Canton has led to the expansion of shrubbery and woody vegetation on pastures as well as the emergence of invasive species. Overgrowing of pastures has a negative impact on local communities, especially on people who are still engaged in animal husbandry since suitable grazing sites are disappearing. The agriculture and food industry which provide significant income to many families in the basin are also affected by the use of water of poor quality and the presence of pollutants. Tests carried out by the FBiH Institute of Agropedology indicate a continuous presence of organic pollutants as well as the presence of mercury in amounts exceeding the officially permitted levels. Contaminated products directly endanger the health of BiH consumers as well as their right to access safe food and foodstuffs. Also, the export of such products to the international market has been precluded since they do not meet the set quality standards.

Numerous problems of Tuzla Canton in the land sector are a consequence of privatization, transition, globalization and so on. The socio-economic situation and the informal economy make additional pressures on the land, i.e. further jeopardize the 'economic-environmental' land capacity. This is mostly reflected in the excessive exploitation of mineral resources and timber as well as the application of unsustainable production practices in forestry and agriculture. Land recultivation is neglected and there is no official database on these activities. Urbanization and illegal construction are visible in the wider area of the Tuzla Canton. Monitoring systems have not been developed, so there is no exact data on either temporary or permanent losses of land. Approvals for changing the agricultural land use are issued without having adopted spatial plans and regardless of the interests of the local community, without the maps of land use value. The spatial plan at the level of Tuzla Canton has not yet been adopted. The consequences of unplanned and illegal construction that contribute to the emergence of landslides, wild landfills, destroyed natural habitats and landscapes and other forms of land degradation

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that threaten its basic functions, pose a particular problem. Land mine contamination in Bosnia and Herzegovina is serious after effect of the Bosnian War which raged from 1992 until 1995. By September 2013, land mines and unexploded munitions remained scattered in 28,699 locations. A total of 1,230.70 km<sup>2</sup> (2.4% of the country's territory) was mined. The existence of minefields has a significant impact on land use in general, especially in agriculture, and slows down the socio-economic development of the area contaminated with mines. The abandoned land areas are continuously increasing. Degradation processes in such areas are manifested in many directions, in terms of devastation and degradation of the cultural space and agrarian environment created during several hundreds of years, the loss of biodiversity triggered by anthropogenic impact, the exposure of space to spontaneous natural events, especially erosion and dominant emergence of invasive species, which change the appearance of the area. Climate change, combined with wildfires and floods, is also, a factor that in recent years had a significant impact on overall agricultural production and land management system in Tuzla Canton

Furthermore, it is the industrial and mining center of the country. Degraded land is a result of strip mining, the disposal of waste material and the deposition of ash from the thermal power plant, the disposal of municipal and industrial waste, the construction of settlements, industrial and infrastructural facilities (dross pipes, industrial ropeways), as well as the erosion and landslides, planned small-scale hydropower plants (where degradation of the natural appearance of the terrain is expected to occur from the engine facility to the point of water supply and further downstream), municipal waste dump sites, areas under the cemeteries and, of course, the vertical degradation caused by land subsidence in the narrow urban center of Tuzla. Furthermore, with a total length of 137 km, Spreča is one of the longest rivers in Bosnia (its basin is part of the Bosna river basin, and together with the basins of Una, Vrbas and Drina, it constitutes the Sava river basin; The Sava basin belongs to the Danube basin which encompasses over ten countries of the EU). Excessive chemical and biological pollution of the Spreča river, its tributaries and lake Modrac, directly affect the health and the economic prosperity of all inhabitants of this area. Approximately, 12.33% of the terrain of the Canton is unstable and 23.82% conditionally stable, and should therefore be considered as terrains with geo-hazardous potential for the formation of new landslides. Most of the landslides in the Canton occur as a consequence of the highly intensive construction of residential, commercial and infrastructural facilities without any previous research and geotechnical testing as well as the long-standing exploitation of mineral resources: coal, salt, technical stone, etc. According to explored deposits of mineral resources as well as the approved decisions and permits issued by the relevant institutions, the total area of exploitation fields in the area of Tuzla canton amounts to 20,410.35 ha, or 7.70% of the total area of Tuzla canton. Surface mining has caused the most damage to the land in the municipality Lukavac (1,459.82 ha), in the municipality Banovići (1,329.79ha), Živinice (596.70 ha) and Tuzla (317.54 ha). Based on an analysis of orthophoto images made in the period 2008-2012 (M 1:10.000, mapped changes > 1 ha) in the area of only three municipalities of Tuzla Canton (Banovići, Kladanj and Tuzla), it is visible that 32.5 ha of agricultural and forest land were converted into built-up areas<sup>[6]</sup>.

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In the Republika Srpska (RS) Entity, tree hot spots are identified as a priority for further measures to combat land degradation and ensure food security for people, Semberija, Herzegovina and Lijevce polje. This project will address the first two for the RS. Semberija is affected by frequent floods and drought, while Herzegovina region with wildfires and bare land expansion. [7]<sup>7</sup>

**Semberija** is located at the mouth of the Sava and Drina rivers, where it occupies about 43,000 ha. It is one of the most important agricultural areas of the Republic of Srpska. Intensive agricultural production is the backbone of economic development, but commercial agriculture negatively affects the reduction of land productivity. The local community identified frequent drought and floods as very important land degradation drivers, but also soil compaction and uncontrolled usage of fertilizers and pesticides. A functional irrigation/drainage system would increase yield, reduce the usage of pesticides and mineral fertilizers, but also combat drought effects. The total "hot spot" area is 11,448.64, h<sup>2</sup>. An efficient flood control system is indispensable knowing this area is endangered by frequent floods, which destroy the highest quality agricultural land along the riverbank. The agricultural producers of Semberija especially highlighted the problem of deficiency of land resources for leasing and cultivation, which distinguishes them from other local communities where abandoned agricultural land is identified as an important factor of land degradation. In addition, urbanization has been identified as pressure on land resources, where significant areas of fertile land are permanently lost due to urbanization. Investment into land rehabilitation measures in Semberija is an important prerequisite for achieving land degradation neutrality in this region.

**Herzegovina** is in the southern part of the Republic of Srpska and covered by a limestone-dolomite substrate, with shallow soils, extensive vegetation or bare land. The whole area is endangered by soil erosion which, under such unfavorable natural conditions, can have catastrophic consequences for people's lives. Agricultural activities are focused on karst fields and rely on individual production. Forests and forest lands are managed by the "Center for Karst Management" within the Public Forest Enterprise "Forests of the Republic of Srpska". Every year Herzegovina region is affected by a large number of forest fires which additionally degrades rare vegetation and already poor soil cover. Uneven distribution of precipitation during the year, where only 30% fall in the spring-summer period, causes drought, but also excess water during winter in karst fields. Water management in the Herzegovina Karst region is a burning problem. The local communities of Herzegovina, especially Trebinje, emphasized the importance of increasing forested areas with a more careful selection of species for afforestation as the most important measure of preserving the soil and water resources. The total "hot spot" area is 13,458 h<sup>2</sup>. Soils in extreme conditions such as karst require management systems, adapted to environmental, not economic requirements. The municipality of Trebinje has been identified as a high-risk area of land degradation. Restoration of degraded landscapes is conceived as a triple win solution to regain ecological integrity, enhance human well-being in deforested or degraded landscapes and resilience to climate change.

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## **Barriers to long term solution**

Weak institutional, policy and regulatory framework and lack of capacity in applying and promoting sustainable land management practices: Based on the BiH Constitution, environmental management is not institutionalized at the state level but is being carried out within the organizational structure of the entity governments, i.e. ministries on the entity level that have land-related jurisdiction and environmental issues in their portfolios. In Brcko District, environmental protection policy is a direct responsibility of the Government through its sectors for communal issues, agriculture and forestry. The lower level of environmental management is under the responsibility of cantonal ministries in the Federation BiH and municipalities in Republika Srpska. The improvement of the state of the environment in BiH should be a coordinated endeavor. To this effect, it is necessary to identify a mechanism that would facilitate a common approach in efforts to address this issue, as well as permanent regional and global participation with efficient, effective and coordinated cooperation with the entities and Brcko District, cantons and local communities, aimed at designing common measures against land degradation. Weak institutional and regulatory context as well as missing horizontal and vertical coordination among institutions at the various governmental levels are one of the main drivers of land degradation and are among the biggest barriers to sustainable land management system application. There are no laws on land protection neither at the state level nor entity or cantonal level. At the level of the Federation of BiH, there are three ministries relevant for land issues (the FBiH Ministry of Environment and Tourism, the FBiH Ministry of Physical Planning and the FBiH Ministry of Agriculture Water Management and Forestry) as well as cantonal ministries or departments (10 cantons). However, there are no official mechanisms that require the institutions to exchange information and data and to coordinate their work in the area of land status monitoring, analysis and protection. The general opinion is that the lack of the FBiH spatial plan opens up opportunities for non-institutional action and spatial management that is not in compliance with legal or any other sustainable forms and mechanisms. This is best manifested in activities relating to the adoption of spatial plans. When it comes to spatial planning, there is also a pronounced problem of the lack of cooperation among sectors which is a major constraint as spatial planning must have a multi-sectoral character. The FBiH legislation has many deficiencies and requires review and harmonization. The existing legislation should be improved and enhanced by the principles and requirements imposed by the LDN approach. Outcome 1.1 of the project will address this barrier.

Limited Capacity, and know-how for implementation of LDN Targets: The role of the local authorities is limited. Both decision-makers and local communities need capacity building to understand the socio-economic gains from sustainable land management, sustainability practices and the practical guidance on how to implement sustainable land management practices on site. BiH authorities lack comprehensive guidelines for rehabilitation of degraded land, best practices of sustainable land management to achieve land degradation neutrality as planned in their LDN Reports. The implementation of strategic documents and legal acts in the Federation of BiH is aggravated by the fact that the Federation of BiH has ten cantons that have their own competencies for land management,

environmental and spatial planning. The cooperation of relevant ministries is not at a satisfactory level, the strategies of various sectors are not harmonized, and this creates additional pressure on land.

With very scarce regulatory and procedural provisions, BiH lacks examples and experience in good practices of land conservation measures and activities. Over the past years (from the end of the war in 1995 onwards), little was done on tackling the rehabilitation of degraded land by investing in knowledge, resources capacity building and building experiences. Therefore, nowadays there is a lack of knowledge in all levels of government and local communities concerning sustainable land management approaches, land cultivation activities and common techniques.

While land degradation can occur as a result of natural processes, there is a widespread opinion that it mostly happens as a result of the impact of users' activity on the land and is often a 'social problem,' which can be prevented if the underlying causes are addressed properly. It is crucial to increase awareness of the importance of land as a natural and irreplaceable resource, educate public and human resources. Mobilizing citizens for the purpose of raising public awareness on the importance of land as a natural resource, and its preservation represents a very important objective for restoring the degraded ecosystems within the country. Outcome 1.2 of the project will address this barrier.

**Lack of information and Monitoring and reporting system for LDN roadmap:** The lack of information, analysis, research, single databases on polluters, facilities with environmental permits, amounts of pollutants collected under environmental protection at all government levels is inevitably reflecting on the awareness and behavior of citizens, most of them not appreciating ecological functioning at all. Since 2007, Pollution and Release and Transfer Registers (PRTRs) are partially in function in both political entities (Federation of Bosnia and Herzegovina and Republika Srpska) and Brčko District (BD) in terms of reporting air pollution emissions by air polluters but other forms of pollution (into land, soil, rivers) are still not reported. Systemic addressing of the issue of land protection against any type of degradation implies more active involvement of all citizens, public and non-governmental organizations, in the process of creating, adoption and implementation of environmental decisions and all other activities. Civil society and the scientific community can significantly contribute to awareness-raising efforts and education of the population on problems causing land degradation and on land degradation consequences.

There is no database of the state agricultural/forest land records in any of the entities, which would enable obtaining of data on agricultural/forest land and its losses, or functional system of permanent monitoring of land with quality and well-organized databases, the form of data that facilitates spatial analysis and a possibility to monitor the situation in the field (e.g. data related to landcover status, changes in the structure of agricultural areas and the structure of forest areas, change of soil quality classification or transfer to the category of 'artificial land?'). Furthermore, there are no official mechanisms that require the institutions to exchange information and data and to coordinate their work in the area of land status monitoring, analysis and protection even within one entity.

SOTER databases, which are the result of the FAO project 'Inventory of Land Resources 2000-2002' and which could have been the basis for the Land Information System, are not updated (e.g. there is no established systematic soil fertility control in the RS (in FBiH it exists partially) with regard to monitoring of the state of land and getting the data required for the calculation of indicators monitored in NAP) including LDN indicators and upgraded in any of the two entities.

The Land Information System (LIS) foreseen by the Law on Agricultural Land (Official Gazette of FBiH, No. 52/09) and by the strategy of RS "The Basis of Protection and Use of Agricultural Land in RS" has not been established. Without updated databases, the data is not consolidated, visible and accessible to all stakeholders. Regular update of databases on spatial planning is also foreseen by the Law on Spatial Planning and Constructing in Breko District (Official Gazette of BD No. 52/09). CORINE, the European database, and the global datasets used for LDN process are the only sources of available data in the monitoring of the state and loss of land.

The impacts of drought and floods on agricultural production are not properly assessed due to the limited data on the number of households affected by floods and drought, economic losses each year. Such analyses are important for future investments in SLM and SFM measures that will combat drought and floods through the introduction of drought resistant species capable to cope with a water deficit in agriculture, and implementation of sustainable land and forestry management (and agroforestry) practices.

## 2) The Baseline Scenario and Any Associated Baseline Projects

In May 2017, the BiH Council of Ministers adopted an Action Program to combat land degradation and mitigate the effects of drought in Bosnia and Herzegovina (BiH NAP). This is the only state-level document that addresses the issue of land and combating land degradation. In this way, the basis for implementing the planned programs and measures has been created. As a result of the LDN process, on 31 October 2017, the Sarajevo Canton Government adopted the Cantonal Environmental Protection Plan where one of the operational goals (operational goal 4.3.) is the Implementation of the UNCCD approach of "land degradation neutrality" (LDN "Land Degradation Neutrality") in accordance with UN SDG 15.3. goal. One of the measures provided is the Alignment of the legislation on the protection of agricultural and forest land with the EU and UN initiatives through the implementation of LDN, and the adoption of the Program of rehabilitation and planning of degraded land abandoned solid waste landfills and the selection of new potential sites. In addition, a set of projects related to the rehabilitation and protection of land by 2022 was provided for in this plan. The FBiH Ministry of Agriculture, Water Management and Forestry has started activities on amending the Law on Agricultural Land.

Active implementation of the FAO/GEF project "Decision Support for Mainstreaming and Scaling-up of Sustainable Land Management" (DS-SLM-GCP/GLO/337/GFF) started in December 2017. One of the project components is related to the promotion and integration of LDN into development policies and plans. This project is being implemented in ten municipalities, nine of which are in the Tuzla Canton area is characterized as a hot spot in the LDN process. As a result of the LDN process, in 2017 the FBiH Ministry of Agriculture, Water Management and Forestry recommended to the FBiH Government to introduce the concept of land degradation neutrality.



Having recognized the importance of the LDN process, the Government of the Federation of BiH tasked the FBiH Ministry of Agriculture, Water Management and Forestry as well as cantonal ministries to work on drafting the land protection policies, to introduce and promote the land degradation neutrality concept into the process of planning and future development (FBiH Government Decision 2106/2016).

### **Associated baseline projects**

The ongoing, continuous project **Land use-value map** (executed at municipal and cantonal level), financed 100,000 EUR by the Federal Ministry of Agriculture, Water Management and Forestry, is analyzing the basic socio-economic factors affecting the methods of use of the land area, primarily use of land. The main purpose of the project is to prepare thematic bases and maps, research and to analyze the area of a Municipality/Canton using GIS and remote sensing information sources (satellite and orthophoto). As outputs of this project, LD authorities in BiH will be capable to analyze the land cover and land-use dynamics, identify certain types of land damages and perform verifications through capability classes, as well as analysis of pedological characteristics of soil types.

Ongoing projects in Republika Srpska (BiH) related to the project:

- Construction of irrigation systems in Ljubinja (LDN hotspot area) which includes artificial accumulation and infrastructure for irrigation under pressure, budget 1,94 mil USD, duration 2020-2023;
- Construction of irrigation systems in Aleksandrovac Laktasi (LDN hot spot area). It is planned to be used as pilot plots on irrigation technology, budget 0,88 mil USD, duration 2020-2023;
- Construction of irrigation systems in Trebinje (LDN hot spot area) infrastructure for irrigation under pressure, budget 6,18 mil USD, duration 2020-2023;
- Construction of irrigation systems in Semberija (Bijeljina) LDN hot spot area budget 9,29 mil USD, duration 2020-2023.

Projects for the construction of irrigation systems are being implemented by the Ministry of Agriculture, Forestry and Water Management of the Republic of Srpska in cooperation with the World Bank. The projects aim is to rehabilitate and modernize existing irrigation systems, build new ones, and strengthen institutional capacity in the public and private sectors to ensure the sustainability and efficient use of water resources. Also, the improvement of agricultural income for rural households with sustainable use of land resources represents additional benefits. The projects are of particular importance due to the fact that in the LDN hot spot regions, due to climate change, in the coming years there is an increased risk of drought and fire. Of the total value of the project, the World Bank finances 85% (through the loan), and a minimum of 15 percent will be provided by the Government of Srpska, beneficiaries and local communities.

Additionally, continuous projects in the RS entitled "Basis for protection of development and usage of agricultural land" at the level of municipalities are financed by local governments (depending on the size and development of the municipality, approximately 25.000 EUR/municipality) represents strategic documents on the local level that are focused on land use along with drivers that cause land degradation under specific socio-economic conditions. The main sources of data are GIS and remote sensing information (satellite and orthophoto), that together with respecting pedological characteristics of soil types provide preconditions for recommendation on land use for different categories having in mind socio economic development, the income of people dependant on agriculture, sustainable spatial planning and achievement of LDN on the local level. Four municipalities in the RS (Laktaši, Doboј, Gradiška and Žamac) are now in process of creating local strategic document for land use planning.

UNDP in BiH project "Interlinking Disaster Risk Management (IDRM) in Bosnia and Herzegovina" aims at strengthening Disaster Risk Reduction (DRR) policy and legal frameworks and enabling the implementation of disaster and climate risk management measures at all Government levels to protect citizens. The total cost of the project is EUR 300,000.00 with the duration of two years, starting February 2018, ending February 2020.

Key activities include:

- Develop disaster response strategic capacity assessment and roadmap;
- Improve entity civil protection legislative framework;
- Improve local level disaster risk management through risk assessments and implementation of strategic DRR actions;
- Implementation of DRR measures in five municipalities.

Other Baseline project currently being implemented by FAO are listed below:

TCP/BIH/3706 - To reduce vulnerability and resilience in disaster risk reduction in agriculture through strengthening capacity and coordination mechanisms (2019-2021, US\$190,000): The standalone project complements part of FAO activities within the Joint UN Programme UNDP, UNICEF, UNESCO, UNFPA, FAO, "DRR for Sustainable development of Bosnia and Hercegovina 2018-2020" (UNJP/BiH/011/UNJ), financed by Switzerland. The project focuses on enhancing the established municipal DRR Platforms at state and entity levels, while strengthening local government's disaster risk assessment capacities in agriculture through the municipal risk assessments. Additionally, the project aims at strengthening capacity and awareness of farmers and agricultural producers on DRR, and promote good practices and technologies to reduce the impact of natural hazards in the agriculture sector (by applying the FAO proprietary Farmer Field School (FFS) methodology).

TCP/BIH/3802/C2 - Potentials of fast-growing plantation forests (2021-2022, US\$63,000): To address the impact of climate change on forests, FAO plans to conduct an assessment of potential locations for plantation forests in BiH, focusing on fast-growing wooden species along rivers, as well as prepare technical guidelines for the sustainable management of plantation forests to contribute and achieve a strong commitment to supporting a future climate change mitigation intervention in the forestry sector. Additionally, the project will support the discussions with national and sub-regional administration as well as municipalities and landowners to contribute to and achieve a strong commitment to support a future climate change mitigation intervention in the forestry sector through the establishment of fast-growing plantation forests while contributing to the sustainable economic development of rural areas in BiH.

TP/BIH/3705 - Strengthening of the private and public sector capacities in priority value chains (2020-2021, US\$153,000): FAO is currently providing technical assistance in building the technical capacity of institutional staff, producer groups, farmers, advisory services, and local communities to develop potato, rural tourism and plum value chains, which have been selected as a result of consultations with all stakeholders (ministries, agencies, local governments, NGOs in the sector). In the context of Bosnia and Herzegovina, special attention is given to the value-chain challenges of particular relevance to the regional economies, that are identified by applying FAO's 'Sustainable Food Value Chain (SFVC) proprietary development framework'. Within the framework of this project two value chain analytical reports and three local plans will be developed.

TCP/BIH/3801/C1 - To strengthen the administrative system to manage and support sustainable geographical indications (2021-2022, US\$75,000): FAO is starting to assist the National Food Safety Agency with the assessment of the geographical indications (GI) potential of Bosnia and Herzegovina through a countrywide awareness campaign on advantages of GIs and registration procedures for agriculture producers and agribusiness, municipalities. Being a marketing tool, GI can be instrumental for enhancing regional trade integration and market access by distinguishing the products in the market, supporting local production and rural development, contributing to local tourism and fighting with product counterfeiting.

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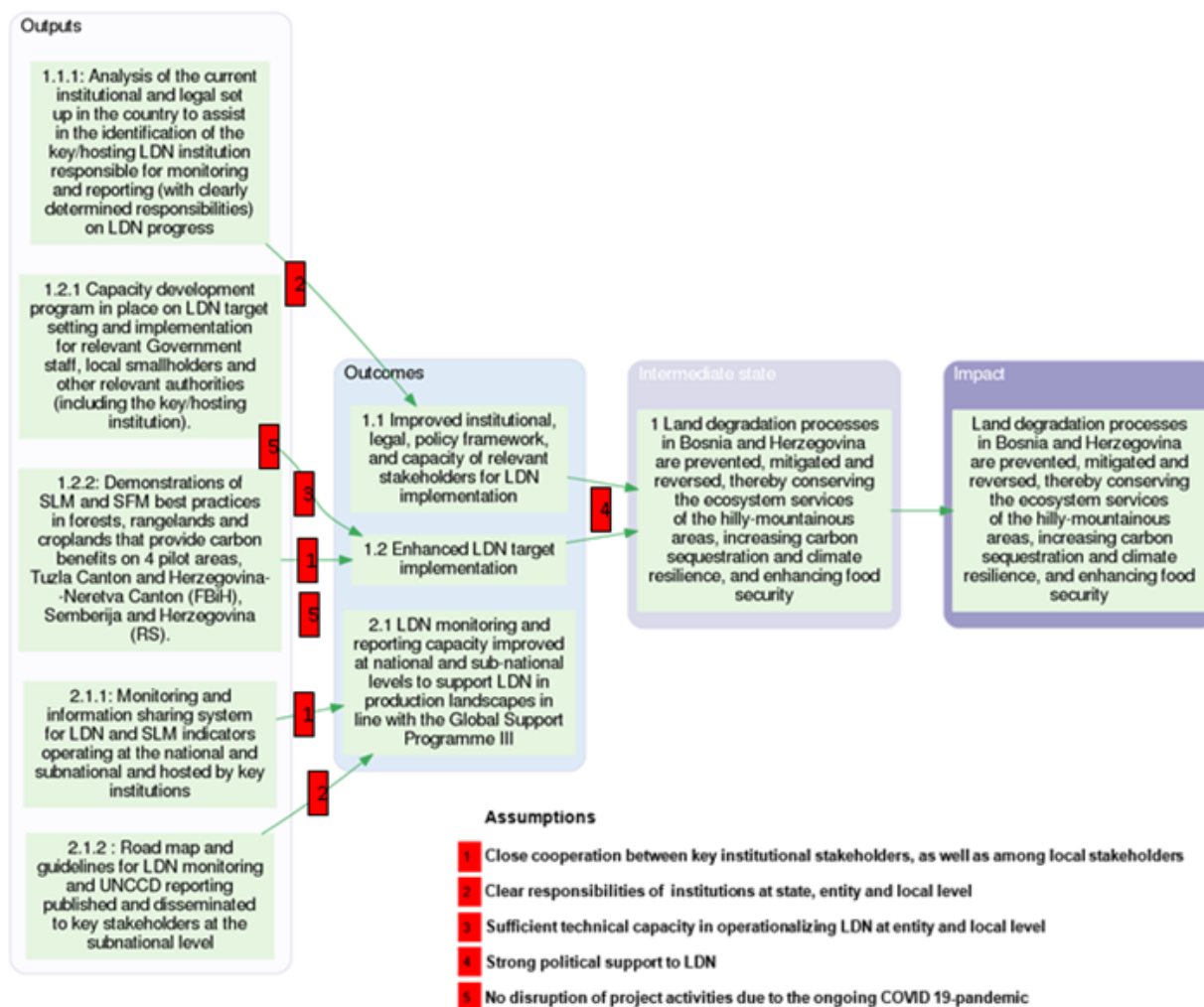
UNJP/BiH/011/UNJ - To support local DRR multi-sectoral platforms (2019-2022, US\$4.9mil.): FAO is currently one of the UN Agencies (together with UNDP, UNICEF, UNESCO, and UNFPA) implementing the Joint Swiss UN Programme "Reducing Disaster Risk for Sustainable Development in Bosnia and Herzegovina", where FAO is responsible for strengthening the capacities of the agriculture sector and vulnerable farmers in target localities to increase disaster preparedness and reduce disaster losses. The Programme aims to introduce and operationalise an integrated model of disaster risk governance and livelihood enhancement at the local level, as a springboard to a bottom-up introduction of DRR governance in Bosnia and Herzegovina.

### **3) The Proposed Alternative Scenario with A Description of Outcomes and Components of The Project**

The proposed alternative scenario implies the existence of national and local institutions with the capacity to implement and promote SLM practices, as well as understanding the socio-economic gains from these practices. Secondly, this alternative scenario would consist in the establishment and functioning of an LDN Monitoring and Reporting System. Otherwise speaking, according to Objective 2 of the GEF7 Land Degradation focal area, the GEF, through this FAO-UNEP proposal, will build capacity at various levels required to restore and maintain functional landscapes, and support the development of monitoring and reporting systems, in order to support BiH voluntary LDN target implementation.

The project's theory of change is based on joint delivery of 3 outcomes: Outcome 1.1 and Outcome 1.2 will assist in removing barriers to national and local capacity for LDN. Outcome 2.1 will address the need for efficient monitoring and reporting system for LDN implementation. These three outcomes will result in an enabling environment to support LDN target implementation, which will lead to the prevention of land degradation processes in Bosnia Herzegovina in the long run.

**Figure 1. Project's Theory of Change**



The Project Objective is to foster a coherent policy environment and track progress towards achieving the national LDN targets. This objective will be achieved as a result of this project, with an alternative scenario implemented through the following two components:

### Component 1: Creating an enabling environment for LDN

Component 1 develops an enabling environment for LDN implementation as well as for future reporting and monitoring. This component will identify a mechanism that will allow approaching the issue of land degradation in a participative and coordinated manner. Moreover, Component 1 will establish the capacity development program on LDN target setting and implementation for local and central government staff and support the integration of LDN approaches into national and local planning documents. This will be achieved with two outcomes. The first outcome of Component 1 will address the first barrier about weak institutional, policy and regulatory framework and lack of capacity in applying and promoting sustainable land management practices. In order to achieve this outcome, the current institutional and legal setup in the country will be analyzed to identify the key/hosting LDN institution responsible for monitoring and reporting (with clearly determined responsibilities) on LDN progress. The second outcome of Component 1 will address the second barrier on limited capacity and

needed know-how for implementation of LDN Targets. A capacity development program will be put in place on LDN target setting for the involved authorities. The training program will target the Ministry of Foreign Trade and Economic Relations (Department for Agriculture, Food, Forestry and Rural Development and Department for Environmental Protection), the entities' ministries that are in charge of environmental, agricultural and spatial planning issues. The capacity development program will target equal participation of men and women and will facilitate a common approach in efforts to address land degradation by enabling effective and coordinated cooperation and communication among ministries. At the local level, this proposal will focus on the demonstration of measures to achieve LDN targets in two priority areas in FBiH and RS. Under Component 1 various SLM and SFM best practices in forests, rangelands and croplands will be demonstrated in pilot areas. The demonstrations will include innovative measures such as modern irrigation systems and the application of drought-resistant species in agriculture.

#### **Component 2: Establishing LDN monitoring and reporting system and development of LDN roadmap**

Component 2 enhances the LDN monitoring and reporting capacity at national and sub-national levels to support LDN in production landscapes in line with the Global Support Programme III: This component will address the third barrier about the lack of information and monitoring and reporting system for LDN targets. Under this component, a monitoring and information sharing system for LDN and SLM indicators operating at the national and subnational will be developed. This system will be hosted by the key institutions identified under output 1.1.1. This information system will provide data on agricultural land execution of the agrarian policy measures. Most importantly, it will grant access to and facilitate the exchange of information between Ministries within one entity level. For the purpose of international reporting by the state and UNCCD focal point and summarising data on BiH level as well, information sharing among entities will be enabled. A common land information system at the level of the Federation of BiH would integrate data on land resources from the level of ten cantons while in RS this system will integrate data from the level of municipality. The establishment of these systems are regulated by the FBiH Law on Agricultural Land and by the strategy of RS "The Basis of Protection and Use of Agricultural Land in RS". It is also a measure that the Government of the Federation of BiH has designated as one of the priorities. Also, the information will be available to farmers and any other relevant stakeholders to support decision-making. The goal of the resulting system is to improve the current information on LDN targets and basic LDN indicators (Land Productivity, Land Use, and Soil Organic Carbon) in BiH as reported on the National reports to the UNCCD.

#### **4) Alignment with GEF Focal Area**

This project is adequately aligned to the Land Degradation focal area strategy by providing technical support for capacity building, reporting, and voluntary national land degradation neutrality target setting and implementation. This GEF-FAO-UNEP the proposal will help Bosnia & Herzegovina

facilitate coordinated investments in Land Degradation Neutrality. GEF resources will be utilized to implement the long-term UNCCD strategy by contributing to achieving SDG 15 and target 15.3. For this purpose, this GEF investment will create an enabling environment to support the country's voluntary LDN target implementation in order to contribute to the implementation of this UNCCD strategic framework and National Action Programme.

FAO and UNEP through this project will support GEF to promote UNCCD's LDN concept by creating an enabling environment for LDN target implementation in Bosnia & Herzegovina. Hence, this project is aligned to Objective 2 of the GEF-7 Land Degradation focal area. In the first place, this project will provide an enabling framework and overarching political support as an indispensable foundation for LDN investments. Component 1 will ensure the creation of an enabling environment by facilitating the coordination at the Ministry level to tackle LDN issues, building capacity at the Government and smallholder level and working on policies at the national level to resolve land tenure issues. In the second place, Component 2 will ensure the development of a monitoring and information system that will reinforce coordinated efforts to address overall LDN issues.

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

This project is designed to achieve an enabling policy environment to support LDN target implementation through strengthening national and local capacity and establishing an LDN monitoring and reporting system in Bosnia and Herzegovina and addressing the persistent barriers as follows:

The outcome 1.1. will address the persistent barrier about weak institutional, policy and regulatory framework and lack of capacity in applying and promoting sustainable land management practices. The current baseline is a situation where the responsibilities of the national institutions remain complex and deal with land issues under distinct aspects. Thus, there is not a unique approach to the problem of land degradation, and legislation remains inadequate for land protection. The complexity of the current institutional structure, as well as the lack of coordination among government levels, obstructs the development of a coherent and integrated land policy. Hence, BiH lacks a strong and integral LDN institutional framework to support the implementation of the envisaged activities. To this effect, the first component of the project through outcome 1.1 will analyse the current institutional and legal set up in BiH to identify the adequate entities and policies for the implementation, monitoring and reporting of LDN targets.

Outcome 1.2. will address the second barrier about Limited Capacity, and know-how for implementation of LDN Targets as follows: The current baseline consists of a situation where national local authorities lack comprehensive guidelines for rehabilitation of degraded land, best measures to use and for sustainable land management needed to achieve land degradation neutrality as planned in their LDN Reports. Additionally, BiH lacks examples and experience in good practices of land conservation measures and activities. Outcome 1.2 will improve the capacity among the relevant stakeholders to address this capacity and knowledge gap with a combination of capacity development programs and field demonstrations of Sustainable Land Management (SLM) and Sustainable Forest Management practices (SFM).

Finally, Outcome 2.1: LDN monitoring and reporting capacity improved will address the third barrier about the lack of information and Monitoring and reporting system for LDN targets with the following outputs and activities: Currently, BiH has written reports identifying baseline indicators at the national level for the three main UNCCD indicators: Land Productivity, Land Use and Soil Organic Carbon. Additionally, the country has identified national LDN targets<sup>[8]</sup> and land degradation hotspots. However, as highlighted previously, collaboration and data exchange among Ministries within one entity level (vertically) as well as among entity levels and state (horizontally) remains very weak. As a result, overall land issues are approached in various divergent manners. Additionally, national capacity for defining, reporting and monitoring indicators at the subnational level is insufficient and the available data sets and methodologies could improve. Outcome 2.1 will build on this baseline to implement LDN monitoring system and improve the national capacity.

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

This proposal will contribute to generate Global Environmental Benefits (GEBs) by sustainably managing 10,000 hectares of forests, rangelands and croplands by supporting on the ground implementation of SLM and SFM practices to achieve LDN targets. The implementation of these practices includes the remediation of degraded land, revitalization of land in vulnerable/abandoned areas, land erosion protection, sustainable water supply for agriculture in hilly-mountainous areas and construction of flood protection infrastructural facilities. GEBs resulting from this proposal include:

? Improved provision of agro-ecosystem and forest ecosystem goods and services: Addressing the problem of Land Degradation leads to improving food availability (increased food production), to soil fertility enhancement (by enhancing the capacity to receive, store and transmit energy to support plant growth), and to the improvement of soil carbon sequestration capacity.

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? Mitigated/avoided greenhouse gas emissions and increased carbon sequestration in production landscapes: SLM best practices demonstrated under Output 1.2.2 will provide carbon benefits.7) innovativeness, sustainability and potential for scaling up

This proposal will pilot innovative measures under Output 1.2.2 in order to enhance land quality and protection, as well as restoring land functions in degraded ecosystems. This project is designed to be scalable, Component 1 will support the integration of LDN approaches at the national level and creates a baseline for future reporting and monitoring. Moreover, concerning sustainability, Output 2.2.1 will deliver a roadmap that will set the milestones and indicators for the next 10 years that will support the monitoring and reporting against the national LDN target as well as toward the achievement of SDG 15.3. Finally, this project will ensure that the experience of implemented pilot activities is disseminated. These activities will be shared and exchanged through experience sharing notes under Output 2.2.2.

The returns on taking action against land degradation are estimated at 6 USD for every dollar invested in restoring degraded land in BiH. Assessments of the costs of action against land degradation through restoration and sustainable land management practices versus the cost of inaction highlight the strong economic incentive for bold actions against land degradation.

#### 7) Innovation, sustainability, replication and potential for scaling up

**Innovation:** The project will create an enabling policy environment to support LDN target implementation through strengthening national and local capacity and establishing an LDN monitoring and reporting system in Bosnia and Herzegovina. In addition, the project will support the practical application, testing and local adaption of a wide range of innovative SLM and SFM practices for the sustainable management of forests, rangelands and croplands. The Project will pilot innovative measures in order to enhance land quality and protection, as well as restoring land functions in degraded ecosystems. The Project will deliver a roadmap that will set the milestones and indicators for the next 10 years that will support the monitoring and reporting against the national LDN target as well as toward the achievement of SDG 15.3.

**Replication:** The project will propose ?packaged? SLM and SFM practices that will be applicable to similar landscapes in BiH. The methods and tools will be available for the sub-national community of practice as case-studies for possible adaptation and replication. The project will organize experience-sharing exercises on a regular basis. Both men and women will be equally targeted to participate in these exchange sessions.

**Sustainability:** The proposed project interventions will be incremental to the baseline land management scenarios in the country and will be implemented in collaboration and synergy with the sectoral authorities and institutions. The project intervention strategy will ensure early buy-in and ownership at the municipal level. The project will empower local stakeholders to take more ownership/responsibility for the management of natural resources, for example through clarifying institutional responsibilities among key agencies. The capacities of key stakeholders, including the relevant authorities and land users, will be strengthened in order to be able to continue the identified best practices. Finally, the project will raise public awareness-raising on land degradation issues and SLM approaches, which will additionally contribute to ensuring the continuation of the envisaged activities. To ensure the sustainability of project results all activities suggested will be checked against each entity's approved development strategies, policies and frameworks.

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[1] Bajocco, S., De Angelis, A., Perini, L. et al. The Impact of Land Use/Land Cover Changes on Land Degradation Dynamics: A Mediterranean Case Study. *Environmental Management* 49, 980?989 (2012). <https://doi.org/10.1007/s00267-012-9831-8>

[2] The Law on Agriculture, Foods and Rural Development of BiH

[3] Official Gazette of the Federation of Bosnia and Herzegovina no. 38/09

[4] Official Gazette of Republika Srpska no 79/15

[5] Final report of the LDN Target Setting Programme of the Federation of Bosnia and Herzegovina Entity. 2018.

[6] National LDN Target Setting Report for the UNCCD. <https://knowledge.unccd.int/home/country-information/countries-having-set-voluntary-ldn-targets/bosnia-and-herzegovina>

[7] Kapovic Solomun (2018). Report on Land Degradation Neutrality Target Setting Process in the RS, 2018;

[8] <https://knowledge.unccd.int/home/country-information/countries-having-set-voluntary-ldn-targets/bosnia-and-herzegovina>

## **1b. Project Map and Coordinates**

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



## 2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

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

The process of gathering information for project identification and preparation was carried out by means of interviews and field visits, as well as the development of validation activities and workshops with key actors from Bosnian Government institutions, NGO-s, Universities, Private businesses. Such

consultations allowed the identification of the project and the socio-economic, environmental and institutional baseline, regarding to LDN targets and their implementation in Bosnia and Hercegovina.

The following table Describes the stakeholders that were consulted during project identification.

<b>Institution</b>	<b>Activity/ Consultation Methodology</b>	<b>Participants</b>	<b>Dates</b>
Ministry of Foreign Trade and Economic Relations.	Interview to explain the scope of the LDN Study for BiH.	Dusan Neskovic, Assistant Minister.	25th November 2020
Ministry of Agriculture, Water Management and Forestry of RS, UNCCD focal point for BiH.	Interview to explain the scope of the LDN Study for BiH.	Zoran Maletic, Assistant Minister,	17th November 2020
Ministry of Agriculture, Forestry and Water Management of FBiH	Interview to explain the scope of the LDN Study for BiH.	Besco Alibegovic, Assistant Minister.	11th December 2020
NGO Majka Priroda	Interview to explain the scope of the LDN Study for BiH and to get field data	Marijana Kapovic-Solomun, President	22nd December 2020

During project preparation and implementation, Stakeholder engagement will be a process in which the project will build and maintain constructive and sustainable relationships with stakeholders impacted throughout the life of the project. This will be part of a broader stakeholder engagement strategy, which also will encompass central and local governments, civil society and others with interest in the project. The satisfaction of stakeholders with the project and/or its benefits will be considered an important aspect of the success of the project and the project stakeholder management will be therefore a core activity of PPG and implementation phases to gain project success.

For the above purpose, a detailed Stakeholder Engagement Plan will be elaborated at the PPG stage which will assist the project with effectively engaging with stakeholders throughout the life of the main and specific activities that will be implemented to manage or enhance engagement.

## Role of the key stakeholders at the PPG Phase

Government Stakeholders	Mandate and role for the project	Parallel activities and co-financing
Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina	The Ministry defines policies, basic principles, coordinating activities and harmonizing plans of the Entity authorities and institutions at the international level. The Ministry will have the coordination role for the project at the level of the state. The Ministry shall assist the project execution by harmonizing plans of the Entity environmental authorities and manage/provide fulfillment of the international level obligations and collaborations since it has the competence for the implementation of multilateral and bilateral international treaties and conventions on environmental protection on the level of BiH.	The Ministry of Foreign Trade and Economic Relations will play a crucial coordination role in the project as a liaison between different governmental levels in BiH, and will dedicate staff time and expertise to the project.

Ministry of Environment and Tourism, Federation of Bosnia and Herzegovina	<p>The Ministry is in charge of strategy, policy, and environmental standards. The Ministry is responsible for the CBD implementation in the country and is host to the CBD NFP. The Ministry will provide political and institutional supervision for the overall project activities on behalf of the Federation of Bosnia and Herzegovina. The Ministry will be represented in the Project Steering Committee, will coordinate project activities, assist the project with cross-sectoral communication, provide technical expertise through its personnel and networks, facilitate access to sites and locations, address logistical issues, e.g. through the organization of meetings and provision of relevant facilities, support project management and regular project reporting.</p>	<p>The ministry covers recurrent operating expenditures for the existing PAs and allocates funds for sustainable tourism development. The Ministry will design/enforce policy measures in support to project endeavors and confirm parallel co-financing where it concerns the implementation of the Federal Environmental Strategy and Action Plan aimed at nature conservation and PA system expansion and management.</p>
Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska	<p>The Ministry is tasked with environmental protection (land, air and water) and waste management, and is host to the UNFCCC NFP for Bosnia and Herzegovina. The Ministry will become a part of the Project Steering Committee.</p>	<p>The ministry covers recurrent operating expenditures for the existing PAs and will ensure enabling environment for project activities planned for PAs under establishment/re-classification in Republika Srpska.</p>
Ministry of Trade and Tourism of Republika Srpska	<p>The Ministry leads sustainable tourism development in Republika Srpska. The Ministry will be represented in the Project Steering Committee, will coordinate project activities within Outcome 2 dedicated to sustainable tourism development for the PAs.</p>	<p>The Ministry allocates funds for sustainable tourism development in Republika Srpska. As the project will have its concession model tested first at the national park in Republika Srpska, the Ministry will support this endeavor with necessary policy and regulatory developments</p>

Concession Commission for Republika Srpska	An independent regulatory body established for concession management in Republika Srpska	The Commission with the award the concession for the Sutjeska NP tourism assets and services, in accordance with the Concession Law of the Republika Srpska. The project will cooperate with the Commission for the development of the concession criteria and guidelines.
Cantonal Public Institution "Protected Areas of the Sarajevo Canton"	Management of protected areas of the Canton of Sarajevo	The institution will ensure co-financing of activities in support to income diversification and financial sustainability of protected areas of the Canton of Sarajevo
Ministry of Trade, Tourism and Environment of Herzegovina-Neretva Canton	The Ministry supports local tourism development through annual calls for projects	Co-financing of infrastructure development and tourism products or services
Environmental Protection Fund FBiH	The Fund takes care of conservation fundraising, as well as preparation, implementation and development of programs, projects and on-the-ground activities supporting the sustainable use of natural resources and environment protection.	PA management funding in support to the implementation of management plans and sustainable tourism development demos
Environmental Protection and Energy Efficiency Fund of Republika Srpska		Incremental funding to biodiversity research and disaster risk management
<b>Civil Society Organisation</b>	<b>Mandate and role for the project</b>	<b>Parallel activities and co-financing</b>
Center for Environment, Banjaluka	Founded in 1999, The Center for the Environment is a non-profit and non-partisan association that arguably advocates changes in society by influencing relevant policies and public awareness of the environment in Bosnia and Herzegovina and internationally.	The Centre's Department on Biodiversity and Protected areas have carried out projects related to capacity building, preservation, education, raising awareness, scientific research and etc. The Center also has developed a network of partners.

Ornithological Society "Naš Ptice", Sarajevo	The Ornithological Society "Naš ptice" is a non-governmental, non-profit, non-partisan, volunteer organization founded in 2003 in Sarajevo, Bosnia and Herzegovina. Society is involved in the field of ornithology, ecology, bird ringing and protection and monitoring of birds and birds' habitats. The activities include raising general public awareness about bird protection, carrying out conservation programs, research and educational programs.	The Society has carried out projects related to restoration of pastures and meadows in newly established PA, bird watching in Federation of BiH, the study of biodiversity and eco-tourism potential of swamps and so on.
Society for Biological Research and Protection of Nature "Bio.Log", Sarajevo.	Bio.Log is a non-governmental, non-profit, organization of young experts in the field and volunteers with aims to environmental protection, habitats conservation, research in the field, education and raising public awareness on biodiversity values and protection.	Bio.Log has carried out research, protection, conservation of selected species in high mountain ecosystems, karst freshwater habitats and Mediterranean
Society for Research and Protection of Biodiversity  Banjaluka	The Society is a non-governmental, non-profit, non-partisan, volunteer organization founded in 2011 that with the following aims: biological research of biodiversity, enhancing nature protection through active protection of nature and wildlife, education and rising public, media promotion and etc.	The Society has carried out research, protection, inventory of species, biodiversity monitoring for selected areas, estimation of the vulnerability of species for Red List and etc.
<b>Community based organization</b>	<b>Mandate and role for the project</b>	<b>Parallel activities and co-financing</b>
Culture and Sports Center of Pale Municipality	This Center acts as a center for cultural and sports events in the municipality of Pale.	This Center actively manages the protected area Nature Monument Cave Orlovaca. It supports the building of necessary infrastructure such as lighting, additional pathways too and within the cave, museum and etc. It promotes the cave as an attractive tourist destination.



Municipality of Foča	This municipality recognized tourism, surrounding natural values as potential and opportunity for sustainable development	the Municipal Assembly of Foča founded the Tourist Organization who actively works in National Park Sutjeska
Touristic organization of Foča Municipality	Public Institution The Tourist Organization of the Municipality of Foca was founded in 2005.  The main activity is the improvement and contribution to a more successful business of the economy	The Tourist Organization actively works within National Park Sutjeska offering tours in rafting, mountain climbing, hiking, cycling, canoeing, etc.
VisitSarajevo - Tourism Association of Canton Sarajevo	Visit Sarajevo ? Tourism Association of Canton Sarajevo was founded in early 2017 to best respond to the needs of development, preservation and protection of tourist and cultural values ??in the Sarajevo Canton.	This Association promotes natural values of six protected areas within Sarajevo Canton
Tourism Cluster Herzegovina	the Tourist Cluster Una-Sana was founded with the vision of a Protected area for People and Nature. Members of the Tourist Cluster Una-Sana, mostly come from the business sector. The main goals of Una Sana Cluster founding are to provide conditions for the economic strengthening of this area by launching new or expanding existing activities through established eco markets, granting grants for creating new tourist facilities and placing autochthonous products within tourist offerings, branding and standardization, while strengthening the capacity of members themselves.	Association Tourist cluster Unasana works on the promotion of the National Park ?Una? as a special tourist destination, advocates for better business conditions for the development of a sustainable tourism sector and etc.

Tourism Cluster Herzegovina	Tourism Cluster Herzegovina is a nonprofit organization, with a main focus on tourism development in the Herzegovina region, Bosnia and Herzegovina. It encompasses enthusiastic and successful entrepreneurs and representatives of the public and civil tourism sectors in Herzegovina region this cluster promotes	This cluster supports sustainable tourism development in protected area Nature Park Blidinje
Local municipalities	Support mobilization of local actors during project design, as well as direct involvement through local authorities and municipal staff.	Local authorities

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

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

?Policies and initiatives on land in BIH and its entities are frequently not gender-responsive. The rights and needs of women, particularly in rural areas remain insufficiently addressed in the existing, legislative and strategic framework and rural women do not benefit from measures that could ameliorate their situations. Gender indicators in agriculture and forestry are very limited in BIH which limiting the planning, implementation and evaluation of activities and measures to improve gender equality through this project. The agriculture sector is an important employer for women in the RS: 33.9 percent of all employed women are working in this sector as compared to less than ten percent in the FBiH. In addition to farms, women are also engaged in agriculture through cooperatives (private sector). For example, the relevant entity-level ministries for agriculture maintain registries of farmers and agricultural holders, but registration is linked to the receipt of subsidies and is not mandatory. On the other hand, there are ongoing activities related to the improvement of land registry and cadastre the system aimed to include sex-disaggregated data on real estate ownership, but these data have not been used to generate statistics about the representation of women among farm owners (with the exception of statistics on women property owners in the Republika Srpska).

In order to close gender gaps, and improve gender equality, the project will consider different strategies while delivering its outputs. In the first place, the capacity development program for relevant stakeholders on LDN target implementation proposed under Outcome 1.2, has the target of considering men and women in equal proportion. Additionally, the demonstration of SLM and SFM practices in forests, rangelands and croplands will be designed to take women's needs into account. In this context, in particular, the project will have an opportunity to identify the key roles of women in agriculture to determine how to empower them to improve their livelihoods while delivering LDN targets. For this aim, a detailed gender analysis will be carried out during the PPG phase to fully consider the different needs, roles, benefits, impacts, risks, differential access to and control over resources of women and men given a project's context, and to identify appropriate measures to address these and promote gender equality and women's empowerment. The analysis will form the basis of a Gender Action Plan and Budget to guide gender mainstreaming during project implementation. In addition, the improvement of the institutional and legal setup in the country and the LDN monitoring and reporting capacity (Outcomes 1.1 and 2.1), will have a look at gender gaps to improve the participation of women in decision-making processes to achieve LDN targets.

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

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

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

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

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

Yes

#### **4. Private sector engagement**

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

Yes

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

This proposal will set up the conditions for local smallholders, private companies related to agricultural production, forest nurseries, such as the Association of Agriculture producers of BiH, "Gvozno" cooperative, Madi Tesanj, Megle Bihac, PD Semberija, Association of fruit producers in Trebinje, Vukoja winery in Trebinje, Tvrdos winery in Trebinje, and many more private entities to implement SLM/SFM strategies through a capacity development program under Outcome 1.2. In the long term, it is expected that the replication and scaling up of these practices will lead to increased incomes for households. Private sector engagement will include active participation of agricultural private companies and forest nurseries who will be educated about possible measures that can be implemented in the production, that will sustain or increase yield, preserve soil and increase soil organic carbon (SOC) content, thus soil fertility rate, aimed to encourage private investments in land. The involvement of the private sector in the Project will contribute to the identification of existing gaps and challenges in transforming policy and regulatory environments to encourage sustainable investments and innovative financial instruments where is possible. This is an opportunity to bring into the same table decision-makers and private sector, to discuss possibilities and innovative approaches to encourage the private sector and further investments that will contribute to land sustainability. Also, active participation of the private sector is an opportunity to establish multi-stakeholder alliances and strengthen institutional capacities related to land degradation. Agricultural producers need to be active partners in this process that will voice identified problems and possible solutions that will help them to sustain production and preserve soil health. Here, associations of agricultural producers, private concessionaires related to land and water, the business club of women, wine producers, private forest owners, forest nurseries will be considered as representatives of the private sector.

## 5. Risks to Achieving Project Objectives

**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)**

The following table encloses a risk analysis including mitigation actions.

	<b>Risk</b>	<b>Impact*</b>	<b>Likelihood*</b>	<b>R/A/G</b>	<b>Mitigation Action</b>
1	Lack of close cooperation between key institutional stakeholders, as well as among local stakeholders	H	MH	R	The capacity development program under Outcome 1.2 will enable effective and coordinated cooperation and communication among ministries in order to achieve LDN common goals.

	Risk	Impact*	Likeli- Hood*	R/A/G	Mitigation Action
2	Unclear responsibilities of institutions at state, entity and local level	H	ML	A	<p>Component 1 delivers a map of the responsibilities/competencies of institutions regarding LDN monitoring/reporting.</p> <p>This proposal, under Outcome 1.1, will analyse the institutional/legal structure and will identify key responsible institutions for monitoring/reporting on LDN target achievement progress.</p>
3	Low technical capacity in operationalizing LDN at entity and local level halting the project's progress	MH	L	G	<p>FAO and UNEP provide technical support for capacity building, reporting, and LDN target setting and implementation through this proposal.</p> <p>A capacity development program is established under Output 1.2.1 for Government staff, smallholders and farmers ensuring participation of 50% of women.</p> <p>Technical capacity development is reinforced via demonstrations of SLM and SFM practices in selected pilot areas.</p>
4	Lack of political support to LDN	L	L	G	<p>The interest and support from BiH have been manifested through the various ongoing projects and programmes investing in LDN (World Bank Irrigation Development Project, World Bank Sustainable Forest and Landscape Management Project, UNEP-GEF Support to NAP development).</p> <p>Furthermore, political will and support to LDN is reflected in the <i>Action programme to combat land degradation and mitigate the effects of drought in BiH</i> and the <i>LDN target setting programmes</i>.</p> <p>Lastly, this project ensures Government participation in its activities and training.</p>

	<b>Risk</b>	<b>Impact*</b>	<b>Likeli- Hood*</b>	<b>R/A/G</b>	<b>Mitigation Action</b>
5	Climate Change stressors such as increased temperatures and frequency of intense precipitation as well as drought, lead to soil erosion and waterlogging, yield losses or crop failure.	H	MH	R	SLM and SFM demonstration practices under Output 1.2.2 include:  Drought adaptation and mitigation, flood protection and soil erosion protection, bare land consisting of conservation measures and rehabilitation of affected land that will bring back its functionality. Flood protection is part of this measure through the construction of infrastructural facilities.
6	Risks related to COVID-19 pandemic and post-pandemic restrictions	H	H	R	General measures: BiH shifted its COVID-19 lockdown, sustaining assistance to vulnerable persons is key to preventing any renewed outbreak of the virus. In the project development, the team will make use of the Government's and UN country system to address the pandemic situation in a timely manner taking into consideration potential socio-economic impacts. For any hardware installation, works will be completed in line with public health and safety requirements. Based on future lock-down scenarios, project activities on the ground will be paused, and activities that can be done remotely or online will be prioritized.

\*L: Low, ML: Moderately Low, M: Moderate, MH: Moderately High; H: High



#### **Opportunities to mitigate impacts and contribution to green recovery and building back better:**

This project will build on the efforts from the BiH institutions to build back better considering that the Agricultural Service has been designed as a key executing agency for post COVID-19 economic recovery activities with the implementation of agro-ecosystem management and natural resource protection activities to be developed during 2021. This project will take the lessons learned from that

experience and build on them to promote sustainable practices for the agriculture sectors. The project will partner with the private sector, local communities and stakeholders to implement good practices and partnerships. These activities will be a part of the entities' Agriculture Sector strategy that will contribute to the conservation of biodiversity and ecosystem services and achieve BiH LDN targets through the restoration of at least 50 ha of the degraded land. SLM practices will be upscaled and promoted to prevent soil degradation, increase vegetation cover improve the natural resource management and conservation efficiency, and reduce diffuse pollution caused by agriculture, including soil erosion, restoring ecosystem services and biodiversity and in parallel, improving the livelihoods of small farmers who will directly benefit from these practices.

## **6. Coordination**

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

In accordance with the Letter of Endorsement signed by the Operational Focal Point (OFP) in BiH for the GEF (attached to the project submission package), and as discussed with the GEF and the OFP, the Recipient Government has designated FAO as the Project Executing Agency. UNEP will be the GEF Implementing Agency (IA) for the project. A task manager will be appointed by UNEP to oversee the implementation of the project, assisted by support staff. A Project Steering Committee (PSC) will be established and chaired by the National Project Director, who will be designated by the Government. The PSC will be comprised of representatives from the Ministry of Foreign Trade and Economic Relations BIH, department of agriculture and Ministry of Agriculture, Forestry and Water management of the RS and FBIH. The members of the PSC will act as project Focal Point(s) in their respective

institutions. As Focal Points, the concerned PSC members will: (i) technically oversee activities in their sector, (ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project, (iii) facilitate coordination and links between the project activities and the work plan of their agency, and (iv) facilitate the provision of co-financing to the project.

### **Coordination with other relevant GEF-financed projects and other initiatives**

The project will coordinate with other GEF-financed projects with the objectives of identifying opportunities and facilitate mechanisms to achieve synergies. This collaboration will be undertaken through: i) informal communications between GEF Agencies and executing partners of other programs and projects; ii) annual coordination meetings; iii) specific meetings on technical matters; iv) meetings and activities to exchange experiences and lessons.

GEF ID 9685 Project (Regional ? International Waters): Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystems NEXUS implemented by the United Nations Environment Programme with the objective of Balancing competing water uses in priority coastal areas through water, food, energy and ecosystems integrated governance, to enhance environmental security and sharing of benefits.

GEF ID 5076 Project: Support to Bosnia and Herzegovina for Development of National Action Programs Aligned to the UNCCD 10 Year Strategy and Reporting Process implemented by United Nations Environment Programme.

GEF ID 4922 Project (Land Degradation): Decision Support for Mainstreaming and Scaling-up of Sustainable Land Management implemented by Food and Agriculture Organization.

GEF ID 4779 Project: Sustainable Forest and Landscape Management implemented by The World Bank.

## **7. Consistency with National Priorities**

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

Yes



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

The **Land Degradation Neutrality Target Setting Process** in BiH started in 2016 in both political entities (FBiH and RS). The Government of the Federation BiH requested the Federal Ministry of Agriculture, Water Management and Forestry as well as cantonal ministries to work on the development of land protection policies, to introduce and promote the concept of land degradation neutrality and to incorporate it in the process of planning and future development. The Ministry of Agriculture, Forestry and Water Management of Republika Srpska together with other governmental institutions took the leading role in LDN process from its beginning. The data analysis from JRC[1], CORINE as well as global data, reveals a baseline scenario where the total area of land in FBiH that is stable but under stress (in terms of productivity) amounts to 38,500 ha, while in RS it amounts to 50,600 ha. Moreover, this analysis brings to light a baseline scenario where a reduction in productivity (categories declining and early signs of decline productivity) was identified on 25,200 ha in FBiH, while in RS, on 12,900 ha. However, an increase in productivity was identified on 2,066,400 ha in both political entities.

This project the proposal is consistent with the **“Action Programme to Combat Land Degradation and Mitigate the Effects of Drought in Bosnia and Herzegovina”**. Forest Management and Land Degradation activities prioritized in this action programme are:

- ? Establish specific forest and forestland management systems in extreme conditions (fire risk, wind erosion and the like);
- ? Identify, select and protect rare types of land (podzol, brunipodzol, peatlands, etc) from regular management measures;
- ? Establish additional measures of banning deforestation in high mountain and Karst areas (where land is at risk of degradation);
- ? Insist on limited utilization of heavy machinery in forest exploitation activities.

The project is aligned with strategic and operational objectives of the Action Programme (priority actions):

Strategic objective 1: Improvement of the legal framework in order to protect land resources and sustainable land management

Operational objective 1.1. To adopt regulations and plans pertaining to land protection from degradation

Operational objective 1.2. To ensure implementation of the adopted regulations, strategic documents and International commitments

Strategic objective 2. Efficient institutions and administration able to respond to the requirements of sustainable land management

Operational objective 2.1. To strengthen and reform institutions dealing with land issues

Operational objective 2.2. To strengthen cross-sectoral and institutional cooperation

Strategic objective 3. Improvement and implementation of melioration measures, remediation

and sustainable land management in BiH

Operational objective 3.1. To develop sustainable monitoring systems and establish adequate databases

Operational objective 3.2. To protect land and recover the function of degraded land

Strategic objective 4 Public awareness-raising and the role of education in combating land degradation and the effects of drought

Operational objective 4.2 Public awareness-raising and the role of education

Drought management plans development is an ongoing activity in both entities, in the coordination of UNCCD and Ministries of Agriculture, aiming to adapt, mitigate and combat drought which is in line with activities in planned LDN hot spot regions, LDN.

Unfortunately, national plan/strategy for UNCCD does not exist, also still mechanism and the reporting system for UNCCD is not in function, therefore with another umbrella project UNEP and FAO jointly starting work to support the country with establishing of the UNCCD reporting system.

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[1]Joint Research Centre, European Soil data Centre

## **8. Knowledge Management**

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

A roadmap to achieve the national LDN target by 2030 will be developed and published. This roadmap will outline agricultural and forestry activities to achieve the national LDN target in each Entity. The knowledge management approach will include community exchange visits, production of brochures and leaflets for land users, a project newsletter, project website, production of films, as appropriate, and hosting or participation in public events and press releases.

In addition, the project will strengthen existing institutional capacities at the national level within BiH in LDN with a strong emphasis on SFM and SLM practices. At the local level, the project is designed to enhance the capacity of local authorities and communities to access new knowledge and implement best management practices in SFM and SLM practices to avoid and reduce Land Degradation. These capacities will be sustained through the improved institutional legal and policy framework proposed under component 1. The improved LDN monitoring and reporting capabilities, including the information a system, proposed on Component 2 will be in line with the Global Support Programme III: Strengthening Capacities of Country Parties for UNCCD Monitoring and Reporting (Approved project - GEFID 10806). This synergy will represent an opportunity for scaling up best practices and sharing experiences with other countries and the UNCCD.

## 9. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

### Overall Project/Program Risk Classification \*

PIF	CEO Endorsement/Approval	MTR	TE
Low			

#### Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

**Supporting Documents**

Upload available ESS supporting documents.

Title	Submitted
Env and Social risk screening_updated 14	

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

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

<b>Name</b>	<b>Position</b>	<b>Ministry</b>	<b>Date</b>
Senad Oprasic	GEF Operational Focal Point	MINISTRY OF FOREIGN TRADE AND ECONOMIC RELATIONS	3/4/2021

## ANNEX A: Project Map and Geographic Coordinates

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

