



Achieving land degradation neutrality targets through restoration and sustainable management of degraded land in Northern Jordan

Part I: Project Information

GEF ID

10528

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI CBIT NGI**Project Title**

Achieving land degradation neutrality targets through restoration and sustainable management of degraded land in Northern Jordan

Countries

Jordan

Agency(ies)

FAO

Other Executing Partner(s)

Ministry of Agriculture of Jordan

Executing Partner Type

Government

GEF Focal Area

Land Degradation

Taxonomy

Focal Areas, Land Degradation, Influencing models, Stakeholders, Sustainable Land Management, Restoration and Rehabilitation of Degraded Lands, Sustainable Pasture Management, Sustainable Agriculture, Sustainable Forest, Improved Soil and Water Management Techniques, Sustainable Livelihoods, Income Generating Activities, Land Degradation Neutrality, Land Cover and Land cover change, Land Productivity, Strengthen institutional capacity and decision-making, Demonstrate innovative approach, Transform policy and regulatory environments, Beneficiaries, Private Sector, Financial intermediaries and market facilitators, Individuals/Entrepreneurs, Communications, Awareness Raising, Behavior change, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Type of Engagement, Consultation, Information Dissemination, Partnership, Participation, Local Communities, Gender Equality, Gender Mainstreaming, Women groups, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Capacity Development, Knowledge Generation and Exchange, Participation and leadership, Access to benefits and services, Access and control over natural resources, Capacity, Knowledge and Research, Knowledge Exchange, Peer-to-Peer, Knowledge Generation, Training

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 0

Duration

48 In Months

Agency Fee(\$)

380,000

Submission Date

3/19/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
LD-1-1	GET	3,500,000	5,500,000
LD-2-5	GET	500,000	20,500,000
	Total Project Cost (\$)	4,000,000	26,000,000

B. Indicative Project description summary

Project Objective

Support the national efforts to implement LDN national targets through SLM and contribute to the achievement of SDGs 15.2 and 15.3, delivering particularly on LDN-TSP targets 1,2, 3 and 5 pertaining to forest management and rehabilitation and improved productivity of rangeland and bare land, in the Ajloun, Mafrq and Irbid Northern Governorates.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1. Enabling Environment for Land Degradation Neutrality (LDN) planning and monitoring	Technical Assistance	<p>1.1. Land use planning and monitoring frameworks strengthened at national and sub-national levels to support LDN</p> <p>Targets:</p> <ul style="list-style-type: none"> - LDN monitoring system operational - local LDN hot and bright spots identified 	<p>1.1.1. The baseline measured by a set of three global LDN indicators (Land cover, Land productivity, SOC) and land degradation status in various land use types (e.g. forest, grassland) in demonstration landscapes verified (using GLEAM, PRAGA, LADA, and others)</p> <p>1.1.2. Effective approach for monitoring three global LDN indicators (and potentially other participatory field indicators) and land degradation status identified and integrated into the existing national and sub-national monitoring systems</p> <p>1.1.3. Decision support system (DSS) based on the three global LDN indicators developed, piloted in the Irbid, Mafrq and Ajloun Governorates, calibrated, and scaled up to all of Jordan</p> <p>1.1.4. DLDD integrated into the LDN DSS and tested on target landscapes in the Irbid, Mafrq, and Ajloun Governorates</p>	GET	1,000,000	5,500,000

1.2.1. Assessment of LDN policy gaps and development of cross-sectoral policies/legal framework supporting LDN principles at national level and improving the investment policy focusing on land management

1.2.2. LDN Platform for stakeholder engagement created at national level

1.2.3. Inter-sectoral coordination mechanisms strengthened at all levels for LDN implementation, ensuring upward and downward accountability and transparency

1.2.4. Integrated land use planning and drought management using FAO Land Resources Planning Toolbox elaborated, consulted, and adopted by authorities in the Irbid, Mafraq, and Ajloun Governorates

1.3.1. Knowledge products on SLM and LDN prepared and shared

1.2. LDN mainstreamed in national policy/regulatory and institutional frameworks and land use planning processes

1.3.2. Capacity development and awareness raising program in place targeting stakeholders and policy makers for LDN targets implementation and monitoring

Targets:

- LDN principles integrated into the national frameworks

- Inter-sectoral coordination mechanisms on SLM, DLDD and LDN

1.3. Enhanced capacity at national and sub-national levels to support the achievement of LDN in Irbid, Mafraq, and Ajloun Governorates

Targets:

- At least 15 Governorate staff trained on

Monitoring of status of land and level of land degradation

- XX people (number TBC during PPG, 50% women) with enhanced capacity in LDN and SLM at national and sub-national level

- 4 knowledge products and training/awareness raising materials (which are gender sensitive in content and form) on SLM and LDN

Component 2. Demonstrating the LDN approach and scaling out SLM practices and approaches in selected landscapes in the Irbid, Mafrq	Investment	2.1. Improved Land Cover/Management, Land Productivity, and SOC through the application of SLM/DLDD practices and approaches in	2.1.1. Participatory integrated land-use plans developed and priorities identified by the DSS in the Irbid, Mafrq and Ajloun Governorates 2.1.2. Innovative and integrated Sustainable Land/Water Management practices and technologies adopted in farmer field schools (FFS) to enhance land	GET	2,500,000	18,500,000
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and Ajloun
Governorates

selected landscapes of the Irbid, Mafraq and Ajloun Governorates	productivity, restore degraded land and reduce pressure on NR (e.g. agro-forestry, afforestation integrated crop/livestock production systems, water harvesting, grazing of riparian zones, grazing crop residues to allow vegetation recovery, pasture and crop rotation, organic manure, soil moisture harvesting, drip irrigation)
Targets: - 2,500 producers trained through FFS, 50% of which are women	Output 2.1.3. Measures and approaches for reducing the impacts of drought integrated into SLM practices and tested/demonstrated in the context of FFS
- 15,000 ha under SLM that meet LDN criteria (of which: 1,000 ha forest; 4,000 ha grasslands; 10,000 ha croplands)	Output 2.1.4. Introduction of gender sensitive sustainable livelihood strategies
- 2,750 ha of land restored (of which: 250 ha forest; 500 ha grasslands; 2,000 ha croplands)	2.2.1. LDN Action Plan with voluntary targets defined in the landscapes of Irbid, Mafraq, and Ajloun Governorates
- 1,347,905 tCO ₂ eq sequestered	2.2.2. Market access mechanism identified and key value chains (i.e. vegetables, olives, figs and grapes) strengthened to achieve LDN in the landscapes of Irbid, Mafraq, and Ajloun Governorates
- 10,000 direct beneficiaries (of which 50% are	2.2.3. Training programs on value-chains management (e.g. marketing, processing, certification) for local communities, extension services, farmers, women groups, and youth

women)

2.2. Increased investments in sustainable land management to achieve LDN

Targets:

- At least four value-chains strengthened and resulting in increased revenue of local population (at

least two value chains target women)

- 2,500 small-holders (50% women) with strengthened livelihoods and sources of income

Component 3. Project Monitoring, Evaluation and lesson learned	Technical Assistance	3.1. Knowledge management, M&E and lessons learned disseminated	3.1.1 Project mid-term and final evaluation conducted	GET	309,524	1,000,000
		Targets:	3.1.2 Global Environment Benefits, co-benefits and costs of SLM monitored, assessed and lessons analyzed.			
		- Functioning M&E system and GEBs and co-benefits established	3.1.3. Gender-focused communication strategy developed and implemented to support SLM scaling up to meet LDN targets			
		- Functioning LDN reporting to the UNCCD				
		- Lessons learned on SLM and LDN mainstreamed in				

5 Governorate plans;

- Lessons learned on SLM and LDN mainstreamed in the national development plan;

- Best practices and lessons learned summarized and organized in a framework for scaling-up in other regions.

Sub Total (\$)	3,809,524	25,000,000
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Project Management Cost (PMC)

GET	190,476	1,000,000
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Sub Total(\$)	190,476	1,000,000
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Total Project Cost(\$)	4,000,000	26,000,000
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C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Ministry of Environment	Public Investment	Investment mobilized	14,000,000
Government	Ministry of Agriculture	In-kind	Recurrent expenditures	2,000,000
GEF Agency	FAO	Grant	Investment mobilized	2,000,000
Government	Governorates, Northern Regions	In-kind	Recurrent expenditures	500,000
Beneficiaries	Local farmers	In-kind	Recurrent expenditures	500,000
Donor Agency	IFAD	Grant	Investment mobilized	7,000,000
Total Project Cost(\$)				26,000,000

Describe how any "Investment Mobilized" was identified

Aligned with the co-financing guidelines, the investment mobilised comprises all relevant investments by project partners in the three Governorates that are not operating or operational costs. A summary is provided here: From the Ministry of Environment: Badia Investment Programme <http://www.badiarp.gov.jo/> From FAO: The Enhancing resilient livelihoods and food security of host communities and Syrian refugees in Jordan and Lebanon through the promotion of sustainable agricultural development project From IFAD: The Small Ruminants Investment and Graduating Households in Transition Project

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Jordan	Land Degradation	LD STAR Allocation	4,000,000	380,000	4,380,000
Total GEF Resources(\$)					4,000,000	380,000	4,380,000

E. Project Preparation Grant (PPG)

PPG Required



PPG Amount (\$)

150,000

PPG Agency Fee (\$)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Jordan	Land Degradation	LD STAR Allocation	150,000	14,250	164,250
Total Project Costs(\$)					150,000	14,250	164,250

Core Indicators

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2750.00	0.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2,000.00			

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
250.00			

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
500.00			

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

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

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15000.00	0.00	0.00	0.00

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

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

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

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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15,000.00			
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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

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 ₂ e (direct)	1347905	0	0	0
Expected metric tons of CO ₂ 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 ₂ e (direct)	1,347,905			

Expected metric tons of CO ₂ e (indirect)	0
Anticipated start year of accounting	2022
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 ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

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

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

**Target Energy Saved
(MJ)**

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

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

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	6,250			
Male	6,250			
Total	12500	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

EXACT has been used to estimate carbon benefits. Indirect benefits need to be estimated during PPG. Number of direct beneficiaries is the sum of beneficiaries from outcomes 2.1 and 2.2. Number of people trained under component 1 will be identified during PPG.

Part II. Project Justification

1a. Project Description

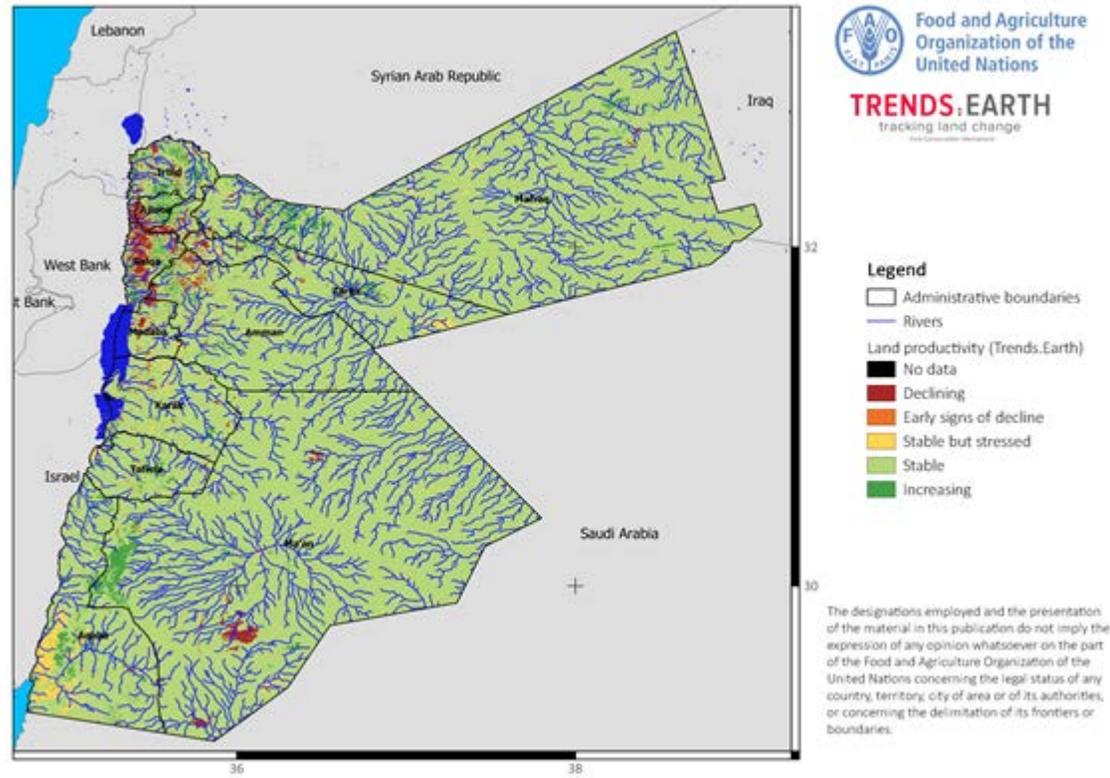
1) The global environmental problems, root causes and barriers to be addressed

Land degradation, an environmental problem throughout the country

The Government of Jordan (GoJ) recognizes^[1] that land is a dynamic, multi-functional resource for producing food and providing other ecosystem goods and services including conserving biodiversity, regulating hydrological regimes, recycling soil nutrients, storing carbon and others. Further, for land-dependent communities, land is the main asset, especially for the rural poor. In these communities, human well-being and sustainable livelihoods are completely dependent upon and integrally linked to the productivity of the land. GoJ, further notes that population growth, climate change, unsustainable land use, land degradation and growing urban areas are increasing the pressure on productive land and water resources. At the same time, competition for productive land is increasing due to growing demand for food and fodder. As a result, the drylands continue to be most vulnerable and threatened by desertification, land degradation and drought. Ecological and economic systems are so disrupted by drought. Maps 1 and 2 display Jordan's land productivity (using NDVI as a proxy) and Soil Organic Carbon, respectively.

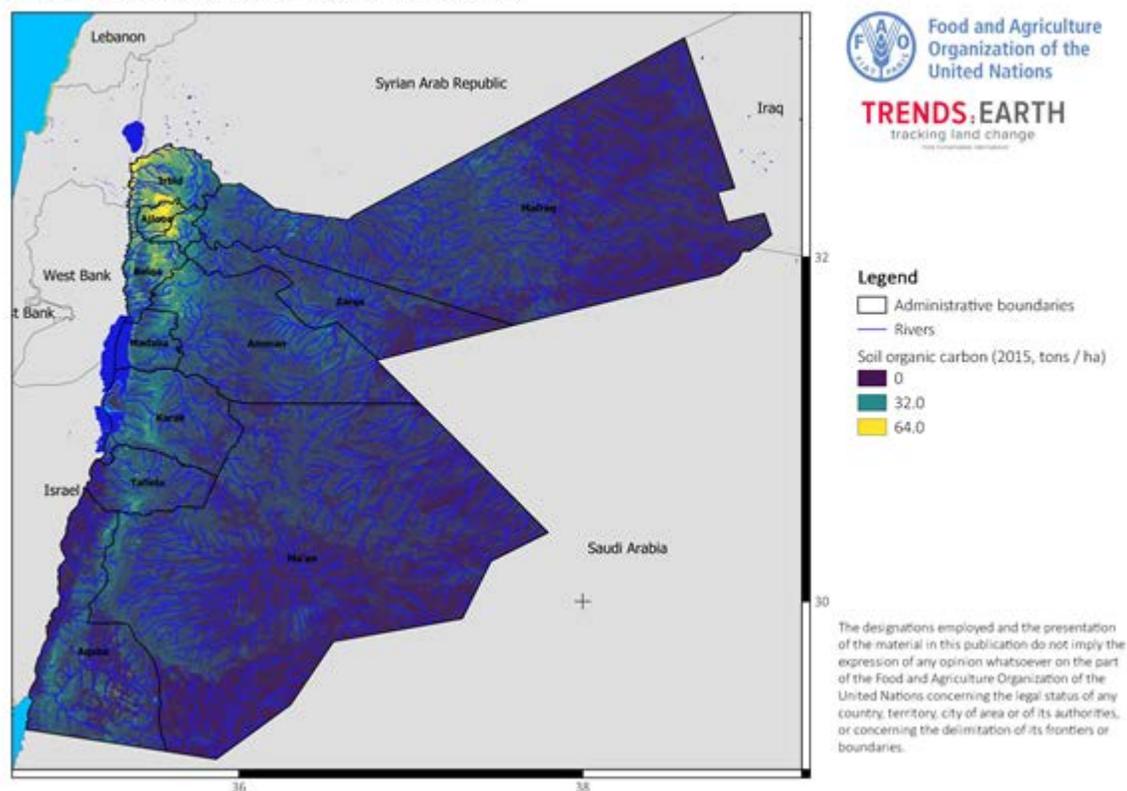
Map 1. Land productivity dynamics in Jordan.

Jordan - Land Productivity Dynamics (2001-2018) and Rivers network



Map 2. Soil Organic Carbon in Jordan.

Jordan- Soil Organic Carbon (2015) and Rivers network



re most thorough national assessment of land status was undertaken in preparation of National Strategy and Action Plan to Combat Desertification (NAP)[1], and additional studies have taken place for the preparation of the LDN report. Although the actual extent and rate of land degradation is still unknown, the existing surveys and studies indicate that the rate is high. About 41 percent of Jordan's total land area is characterized as degraded of which 22 percent of the total land mass is classified as moderately degraded and agricultural productivity is greatly reduced. The table below summarizes the results of various studies and research on the types and drivers of land degradation in different ecosystems in Jordan[2].

Land degradation type	Ecosystem/region	Driver
Water erosion	Highlands and Jordan valley escarpment	Deforestation, overgrazing, agricultural practices
Wind erosion	Eastern plains, steppe area and Badia	Overgrazing, deforestation
Decline in soil fertility and soil compaction	Highlands and Jordan valley	Agricultural practices, overgrazing and deforestation
Rangeland and vegetation degradation	Forests and Badia	Overgrazing, deforestation

Land Degradation in the Selected Bio-geographical Zones of the Project

As per table 1 above, Jordan can be divided into three major agro-ecological zones: the Jordan Valley, the desert regions (also called Badia), and the highlands. The JCCD NAP further divides the country into four zones. Of these 4 zones, the project addresses the root causes of land degradation in the Mediterranean and Irano-Iranian bio-geographical zones in Northern Jordan.

The steppe within the Irano-Turanian zone is considered as a transitional zone of the Badia. Intensive agricultural activity (barley cultivation) and some irrigation can be observed in this zone. The NAP found that the dominant aspects of desertification in this zone were the high rates of erosion by wind and water, the substantial accumulation of calcareous silt on the soil surface, the low germination rate of plants, the low intensity of plant cover caused by overgrazing and poor rainfall distribution. The area is also affected by soil surface crust that accelerates erosion by water and soil compaction problems caused by uncontrolled movement and level of grazing herds and vehicles. However, many parts of this zone are believed to have high resilience; indicated by a high recovery and productivity of the protected natural vegetation inside natural and range reserves.

The Mediterranean climatic zone and includes semi-arid and dry sub-humid areas. The annual rainfall in this zone is relatively high. The existing soils are believed to have developed under a humid climate, which indicates that this zone has passed through a physical environmental change. Nevertheless, anthropogenic factors of woodland cutting, urbanization and land fragmentation have accelerated desertification in this zone. Currently, the aspects of desertification that can be observed include the recession of forest areas, the high rate of water erosion by water, expansion of urbanized area in the high rainfall zone, reduction in soil organic matter and soil compaction and deterioration.

A number of additional causes of desertification and degradation are reported to impact the 2 prioritised geographies:

Land tenure issues contribute to land degradation. For example, the announcement that grazing rangelands are state-owned properties (common property) and the elimination of traditional land tenure systems accelerated the destruction of the rangelands by the introduction of new land uses such as the cultivation of wheat and barley, overgrazing and early grazing of range plants, the ploughing of rangelands to establish ownership rights, property rights, urbanization, uprooting of bushes for

use as fuel wood, arbitrary movement of vehicles, quarries and mining activities. Some of these uses were often unsuitable for the land type – although they often led to immediate and short term increases in production.

The impacts of the refugee crisis are geographically focused and hopefully more limited in time. There is very little quantitative data or research results assessing how refugee populations affect land use and land status, but some reports suggest that in northern Jordan the sudden increase in the population of farmers and livestock has led to large, negative impacts on ground cover, and presumably leading to soil erosion and reduced fertility.

Furthermore, climate change is reported to alter or erode ecosystems and their multiple goods and services. Temperature increases influence soil properties and processes, including organic matter decomposition, leaching, and soil water regimes, and air temperatures may affect crop yield. Climate change may lead to more intensive rainfall events and increased wind speeds, both in turn leading to increased erosion.

Drought is another problem that further challenges a water scarce context. The growing demand^[3] for fresh water exceeds by far availability from renewable sources. Consequently, there is a high dependency on non-renewable (fossil) groundwater and treated wastewater (MWI records and Archives, 2015). Land management planning, therefore, is to fully integrate water management.

The Climate Change Risk Screening in the Roadmap Section of the Portal elaborates further the role of climate change and drought on land management.

Land Degradation Neutrality Targets Have Been Identified

To tackle land degradation issues, Jordan participated in the UNCCD and the Global Mechanism the LDN Target Setting Program (TSP). The TSP mobilized consultation with a wide group of national stakeholders and manifested with the release of the following targets:

Target 1: By 2030, promote the implementation of community based forest management, forest landscape restoration with indigenous species, avoiding overgrazing, forest closure, alternative livelihood systems, and ensure the restoration of 3.0% of its forest and woodland habitat lost between 1990 and 2005.

Target 2: By 2030, ensure the rehabilitation and improvement of the productivity of 5,000 ha of forest land by stopping uncompensated conversion of forest area, especially in slopes, into cropping or urban areas, and promoting agroforestry, and, alternative livelihood systems, in order to avoid reduction of carbon stock and limit the risk of erosion.

Target 3: Improve the productivity by at least 10% of 100,000 ha of the rangeland reserve areas by the year 2030 through avoiding overgrazing, promoting controlled grazing, and rangeland management/improvement.

Target 4: Take urgent and significant actions such as stopping artificialisation /urbanization of arable lands, through land use law.

Target 5: Through sustainable land management practices particularly implementing biophysical soil and water conservation practices improve the productivity of 100,000 ha of bare land and other areas by the year 2030.

It is expected that improved land management will lead to biodiversity conservation co-benefits. LD promotes the use of traditional races and crops and it decreases the anthropological pressure on biodiversity and nature reserves. As noted in the National Biodiversity Strategy and Action Plan^[4], Jordan has a unique and rich biodiversity across all bio-geographical zones, that is under increasing threat, notably from changing land use and habitat degradation – including land degradation.

is Project, by contributing to the process of improving land management, will make a general contribution to biodiversity conservation, although these factors are not measured.

Barriers to Achieving Land Degradation Neutrality

Barrier 1: Lack of adequate institutional and governance frameworks

That is, a lack of operational experience to integrate the sustainable management of resources and poverty alleviation efforts. Greater effort is required to fine-tune and add effectiveness to the inter/intra-institutional coordination framework, within a fully integrated land use planning and monitoring approach. Government agencies often have academic or theoretical knowledge, but they lack hands-on experience working with farmers and rolling out knowledge in practical situations. Concerned institutions are not well coordinated and capacitated to effectively implement programs and projects that enable to minimize deforestation, overgrazing and soil erosion problems. Also the involvement of the local community to own the measures being implemented, or consideration of the biophysical landscapes is not to the required level.

There is an incomplete regulatory framework for the implementation and monitoring of SLM systems to comply with the national strategy to restore degraded lands and vegetation and ensure the sustainable delivery of related goods and services. Territorial governance is also limited by the lack of coordination and efficient mechanisms for cooperation between national and regional level (governorates), as well as between the governorates and the local and private sector stakeholders. These institutional constraints limit integrated land use planning in consideration of environmental benefits, including soil & water conservation and reduced deforestation, as well as opportunities for sustainable production of commercial commodities. In the case of northern Jordan, there is a lack of region-specific land-use and restoration plans that could implement, monitor and supervise sustainable restoration practices defined on national level.

There is legal uncertainty over land tenure. More than 800,000 private land titles are registered, but State land accounts for 80% of the country's total lands, and these areas are poorly defined and documented. Customary rights are unclear, leading to large-scale tenure insecurity, particularly in the rangelands, limiting the implementation of long-term strategies for operationalizing conservation-production strategies. Cadaster, property registry and land use monitoring must be strengthened to be able to assure compliance with national laws and regulations, especially in remote areas where field inspections are not existent.

Barrier 2: Limited data and information for decision-making

That is, there is a lack of effective information and knowledge management from collection to dissemination- resulting in interventions that do not address land use planning in an integrated manner. Although research organizations, universities and even government agencies are familiar with sustainable techniques and approaches, there are no effective mechanisms to practically extend these techniques/approaches to farmers and to the actual people responsible for land use management decisions. There is no updated scientific information on the current status of forests and other vegetation resources, overgrazing damage and soil erosion of the country. A national database and system to monitor desertification is absent.

Despite national commitment for LDN and goals to restore degraded lands and forests, there has so far been limited progress in achieving these goals. Proper landscape management tools are lacking, which could have been used to help restore degraded soils using sustainable management techniques for production and conservation of soil, water and vegetation cover. Producers, local communities, and vulnerable groups lack the training to implement SLM for restoration, including implementation of agroforestry systems that promote production alternatives to traditional agriculture and livestock production practices, and diversification of farms. There is also limited knowledge among decision-makers and environmental authorities (including the governorates)

regarding available technical tools for measuring the benefits of biodiversity conservation and reduced land degradation resulting from the restoration of degraded lands using SLM and sustainable forestry and agroforestry systems, and to monitor and verify deforestation-free production at the proper spatial scales.

Barrier 3: Inadequate incentives and financial risk

The allocation of financial resources is insufficient and inadequate. Compensation mechanisms to cover costs in switching to the SLM practices and incentives that allow for alternative livelihoods and exit strategies are missing. To the extent that government funds are available, for example through BRP, they are not allocated to the most sustainable land use systems. This is further restricted by the lack of financial and market incentives to encourage producers to make use of sustainable production systems and for the restoration of degraded areas that result from poor farming practices in wheat other crops, and beef/dairy production.

The difficult and fluctuating market situation for agricultural crops, combined with long distances, bad roads and costly transport to the market, give little incentives for small-holder agricultural production. It is a vicious cycle where the poorest producers do not have enough income to invest in sustainable production and soil conservation, making the land gradually more degraded. For husbandry production it is a similar situation, often with low-yielding cattle grazing without herding, degrading the pastures and compacting the soils. The lack of financial instruments and incentives to local communities and vulnerable groups is a factor that re-produce poverty and thereby land degradation.

2) The baseline scenario and any associated baseline projects

Jordan, as a signatory to the UNCCD, has committed to the voluntary LDN target *“By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world”* and established a set of five specific national LDN targets (details in the section 1). In order to effectively combat the process of land degradation at the country level, a national LDN working group has been formed that include the following key ministries: **Ministry of Environment, Ministry of Agriculture, Ministry of Water and Irrigation, Ministry of Tourism and Antiquities, National Center for Agricultural Research (NCARE), Ministry of Planning and International Cooperation, Ministry of Interior, Royal Geographic center, The Hashemite Fund for Badia development, Ministry of Municipalities, Badia Research program**. In addition, UNCCD, CBD, UNFCCC country focal points – also members of the LDN working group – are hosted in the Ministry of Environment. The target-setting process resulted in improved collaboration and coordination mechanisms among governmental and non-governmental institutions. This inter-sectoral engagement will serve as foundation to ensure institutionalization, implementation, inter-sectoral integration, and sustainability of the project activities.

In the past, most efforts to address land degradation in Jordan have focussed on the Badia lands, and in particular on the Southern and Middle Badia Lands. Far fewer efforts have focussed on northern Badia lands, and fewer still on the areas of Jordan outside of the Badia lands.

The Ministry of Environment institutionally hosts **the Badia^[5] Restoration Program (BRP)**. The program originated out of efforts to compensate Jordan for damages it incurred as a result of the Gulf Wars. The United Nations Compensation Commission awarded Jordan \$140 million to address land restoration in Badia lands and this is managed through BRP. This is a large and comprehensive initiative. The BRP provides funds for activities and programmes that focus on the rehabilitation of the ecosystem. The approach is to ensure community participation at all stages of implementation, and especially the participation of livestock owners. A joint aim is to build capacity at all levels. The BRP objectives are being achieved through the community protection of the natural resources (land, water and vegetation) based on a scientific approach and the community needs. The BRP supports the targeted communities with incentives for their livestock and improving their skills through training programs. The BRP includes several physical infrastructure projects focusing on water harvesting,

water storage and water supply to rural communities. The BRP includes components on (i) integrated watershed management; (ii) sustainable livestock management; (iii) sustainable fodder and crop production and (iv) rangelands management. In Northern Jordan, typical activities include stone clearing, fence building, contour building, dam and small dam building, veterinary support, etc.

The integrated watershed management is the cornerstone in developing Badia's rangelands. While BRP targets only five watersheds, the program feasibility study has showed that there are other nine watersheds and sites with high potential, 5 of which are located in the GEF target regions. The BRP will invest approximately about **USD 14 million** in the Northern governorates implemented in cooperation mostly with local CBOs. BRP is the main baseline initiative to implement LDN target Target 3: *"Improve the productivity by at least 10% of 100,000 ha of the rangeland reserve areas by the year 2030 through avoiding overgrazing, promoting controlled grazing, and rangeland management/improvement"*. The project significantly contributes to components 1 and 2 of the GEF project.

The **Ministry of Agriculture (MoA)** is supporting several relevant baseline projects, including the **National Land Rehabilitation Program**. These projects have notably provided support to rural communities and farmers to undertake the following interventions: stone clearing to prepare arable land; small scale water harvesting through cisterns and tanks; small scale wells; renewable energies (e.g. from biogas), grey water recycling, well-water desalination; fencing to support livestock management and crop production; and capacity development related to agricultural technical skills, business development skills, alternative livelihoods (e.g. new crops, bee-keeping). The GEF project will make use of these investments, particularly those made in the target Governorates of the project, to achieve the results under component 2 of the project, and add value by addressing gaps, including tools/approaches to integrate various elements of the landscape to optimize the use of resources, enhance productivity and minimize risks and vulnerability, taking into considerations socio-economic and demographic dynamics.

FAO has been providing technical support and implementing projects in Jordan for over 15 years. The *Enhancing resilient livelihoods and food security of host communities and Syrian refugees in Jordan and Lebanon through the promotion of sustainable agricultural development* (USD 10 million, 2020-2022) project is expected to contribute to the social and economic inclusion and cohesion of the populations affected by the Syrian crisis in Jordan and Lebanon. It hopes to do this through local agriculture development. To this end, it has 4 complementary components: (i) adequate agriculture production support systems for vulnerable farm communities are rolled out and good agriculture practices are supported and developed; (ii) ability of national institutions, farmer groups, agricultural technical centres and schools/facilities to develop capacity of host and refugee's communities is enhanced; (iii) Productive capacities of vulnerable host farmers and/or home-based micro and group-based small-scale agri-food enterprises are increased and job opportunities in the form of agricultural labour are created; and (iv) livelihoods and employment opportunities for the most food insecure created through sustainable management of natural resources. The GEF funded project can use the agriculture and extension centres created by this investment to support training activities. The investment foresees to rehabilitate and provide equipment and tools needed in order to be able to host training programmes in Amman, Irbid, Mafraq, Zarqa, Ajloun and Jarash (i.e. six Governorate Directorates of Agriculture and four NCARE facilities in the governorates). Furthermore, the GEF funded project will benefit from the lessons learnt particularly from the implementation of the 3rd output of the project (Productive capacities of vulnerable host farmers and/or home-based micro and group-based small-scale agri-food enterprises are increased and job opportunities in the form of agricultural labour are created). USD 2 million of this project is mobilized as co-financing in support of the component 2 and 3 of the GEF project.

The Small Ruminants Investment and Graduating Households in Transition Project financed by IFAD (USD 24 million, 2017-2024) operates in the Mafraq, Irbid, and Ajloun Governorates, as well as in a number of neighbouring Governorates. The project aims at reducing poverty and enhancing national food security by improving the productivity of the small ruminant sector that faces challenges such as water scarcity, feed shortage and degraded rangelands. It is also intended to assist Syrian refugees and host communities in graduating out of poverty. Project components include: (i) investment in farmer services, to strengthen the public and private complementary services offered to small-ruminants producer, thanks also to the establishment of a National Agriculture

Advisory Group for policy dialogue; (ii) livelihood investments and access to financial services, through grant-based income-generating packages for on- and off-farm enterprises as well as through lending facilities for rural businesses. Contributing significantly to component 2, and partially to component 1 of the GEF project, **USD 7 million** is mobilized as co-financing.

In addition, the following projects will provide an important foundation and lessons learned for the GEF project (these are not considered as co-financing):

The UN Habitat project **Increasing the resilience of displaced persons (DPs) to climate change-related water challenges in urban host settlements in Jordan** is expected to start implementation in June 2020 and will focus on adaptation to climate change through sustainable water management. The project aims to reduce the demand of unsustainable water sources such as over-extracted groundwater, while increasing water supply from non-conventional sources such as rainwater harvesting from buildings and houses, grey water systems treatment, re-use of the treated water, and application of sustainable agricultural practices through permaculture at the Faculty of Agriculture's premises. This project is complementary to the planned GEF project because it will promote the replication and scaling-up of the demonstrated techniques and approaches, and to demonstrate how water can be assessed, planned and managed more efficiently at the municipal level (i.e. establish urban-rural linkages) and sustainably, by mainstreaming climate change and gender in municipal master plans. There is no duplication with proposed GEF financing in the northern governorates. **Mafraq Governorate:** It will (i) enhance quality of wastewater from Al Mafraq wastewater treatment plant; (ii) promote shared water ponds between farmers to store and mix water of different qualities; (iii) greywater reuse system; and (iv) rooftop rainwater harvesting system. **Irbid Governorate:** (i) rooftop rainwater harvesting; (ii) permaculture; (iii) rainwater harvesting at schools; (iv) greywater reuse in public buildings schools and mosques. **JARASH:** (i) Enhance the quality of treated wastewater from Al Maerad Wastewater Treatment Plant; (ii) Introduce modern water conserving irrigation methods to nearby farms (drip irrigation).

Badia ecosystems and livelihoods project (GEF ID 5026, 2012-2017) established rangeland reserves and reservoirs of rainwater for animal drinking, developed community grazing and rangeland agreements covering 3,000 hectares in Ma'an. Main components include: (i) Community centred Eco-Tourism in the Northern Badia through the Establishment of an Al Azraq/Shaumari-Burqu' Eco-Tourism Corridor and community engagement. and , (ii) Sustainable rangeland management and livelihoods support in the southern Badia. These approaches can eventually be scaled-up across the Badia. Main national partners are the Badia Research and Development Centre, the National Centre for Agricultural Research (NCARE) and the Ministry of Environment.

The GEF project **Healthy ecosystems for rangeland development (HERD): Sustainable rangeland management strategies and practices** (GEF ID 9407) is a bilateral project Egypt-Jordan that was approved in November 2017, implemented by UNEP with USD 3.5 million from the GEFTF and USD 12.2 million in co-financing. Main components include: (i) Component 1 or Technical assistance for adaptive management and learning (evidence-based decision-making), (ii) Component 2 or Stronger institutions for rangeland governance and (iii) Identifying and up-scaling good practices in Sustainable rangeland Management, based on PRMPs. The project would be able to provide useful lessons learned on rangeland management under Jordanian conditions. The PPG study will assure to avoid duplication of project area with this project for the activities on cattle/rangelands.

Wadi Arab II- Water treatment and conveyance to Irbid is an ongoing AfDB project with a budget of USD 130 million. It will increase production of drinking water supply to the northern governorates by more than 40%. The project is located in the northwest of Jordan and involves the abstraction and treatment of 30 million cubic metres per year of water from the King Abdullah Canal (KAC) to supply the Zabda Reservoir in the City of Irbid (80km north of Amman). Its main components include the construction of an intake facility from the KAC, a treatment plant, pumping facilities and a transmission pipeline to convey the treated water from the treatment plant to the Zabda Reservoir on the western side of the City of Irbid (BEI, 2015)[6]. The PPG will review which parts of this projects that are implemented in the project area and are most relevant as co-financing.

Food Security and Livelihoods Analysis for Jordanian Host Communities project outcomes are: (i) Outcome 1: Enhanced knowledge and understanding of the implication of the Syria crisis on the food and livelihood security, as well as of the needs of vulnerable Jordanian families by national and international stakeholders are enhanced and, (ii) Outcome 2: A detailed baseline analysis of the livelihood and food security among poor Jordanian communities hosting Syrian refugees is provided to the FS&RDU in order to support formulation and implementation of a monitoring system.

3) Proposed alternative scenario with a brief description of expected outcomes and components of the project:

The project will support the national efforts to implement LDN national targets (1, 2, 3, and 5) through SLM and contribute to implementation of SDGs 15.2 and 15.3. Under the LDN framework, land degradation can be avoided, reduced, and reversed at scales from individual farms to entire watersheds; it provides cost effective, immediate, and long-term benefits to communities and support several SDGs with co-benefits for climate change adaptation and mitigation, and biodiversity conservation. The project will therefore promote SLM and landscapes restoration for achieving LDN commitments of Jordan. Moreover, using the landscape approach[7] to integration across sectors and scales increases the chance of maximizing co-benefits and minimizing trade-offs. The project will follow STAP's guidelines for the application of the Scientific Conceptual Framework for LDN[8] and take a phased approach through the proposed three Components.

Component 1. Enabling Environment for Land Degradation Neutrality (LDN) planning and monitoring

Outcome 1.1. Land use planning and monitoring frameworks strengthened at national and sub-national levels to support LDN. The LDN target setting report of Jordan will be made operational through strengthening of monitoring system to track the three LDN indicators on land cover, land productivity and soil organic carbon (SOC) and land degradation status across relevant sectors and under the overall coordination of baseline initiatives led by the Ministry of Environment. Building on the previous studies, this will also enable the identification of LDN hot spots and bright spots using LDN framework for targeting of SLM and restoration interventions. The outcome will be achieved through four outputs.

1.1.1. The baseline measured by a set of three global LDN indicators (Land cover, Land productivity, SOC) and land degradation status in various land use types (e.g. forest, grassland) in demonstration landscapes verified (using GLEAM, PRAGA, LADA, and others):

- Land Degradation Assessment in Drylands (LADA) global and local tools will be used to assess land degradation status, trends and drivers and bright spots in demonstration areas identified, building on the existing assessments done for the LDN report
- In-depth assessments of available data and metrics in Jordan on land potential, land condition, resilience, social, cultural and economic factors, including consideration of gender, and validation at the local level before initiating interventions to ensure evidence-based decisions and reduce the potential risk of land appropriation. PRAGA and GLEAM tools may be used among others, building on the available SOC map salinity map (being developed by MoA)
- Collect Earth and/or Trends.Earth to assess LDN baseline on land cover and land productivity using national datasets and freely available remote sensing data

- Assess and integrate additional national and sub-national indicators, both quantitative and qualitative data and information, to aid interpretation and to fill gaps for the ecosystem services not fully covered by the minimum global set of three indicators.

1.1.2. Effective approach for monitoring three global LDN indicators (and potentially other participatory field indicators) and land degradation status identified and integrated into the existing national and sub-national monitoring systems

- Raise institutional capacities for monitoring of LDN indicators (and potentially other participatory field indicators) and their drivers (land use change, soil erosion, soil salinity, soil carbon sequestration potential)
- Mapping the entry points for include the LDN indicators in the current national land use monitoring systems
- Integrate LDN monitoring system into existing land use monitoring system at administrative levels

1.1.3. Decision support system (DSS) based on the three global LDN indicators developed, piloted in the Irbid, Mafraq and Ajloun Governorates, calibrated, and scaled up to all of Jordan

- DS-SLM tools developed by a FAO/GEF project used to design the LDN DSS system and integrate data identified under outputs 1.1.1. to conduct counterbalancing of future land degradation (losses) with planned positive actions elsewhere (gains) within the same land type
- LDN decision-support system framework established at national level
- LDN decision-support system framework calibrated and piloted on each target Governorate
- LDN decision-support system scaled up to the national level, building on the baseline project on national extension

1.1.4. DLDD integrated into the LDN DSS and tested on target landscapes in the Irbid, Mafraq, and Ajloun Governorates

- CC impacts identified at PIF stage integrated into the DSS in output 1.1.3. using globally available indices (drought, precipitation, aridity, etc.) and nationally appropriate indicators
- Development of a national Desertification-Land Degradation Model
- Development of SOC monitoring system and calibration on target landscapes in three Governorates, building on Badia program landscapes (watersheds)

Outcome 1.2. LDN mainstreamed in national policy/regulatory and institutional frameworks and land use planning processes. LDN principles will be integrated into the national frameworks with the focus on watersheds and drylands. Inter-sectoral coordination mechanisms for LDN will be strengthened, especially between the LDN Working Group members of Ministry of Environment, Ministry of Agriculture, Ministry of Water and Irrigation, Ministry of Tourism and Antiquities, National Center for Agricultural Research (NCARE), Ministry of Planning and International Cooperation, Ministry of Interior, Royal Geographic center, The Hashemite Fund for Badia development, Ministry of Municipalities, Badia Research program. The focus on the alignment of the national policies for LDN achievement as well as monitoring systems will ensure its sustainability from an institutional perspective.

Applying an integrated land use planning principle that embeds the neutrality mechanism in land use planning, and with the mechanism for neutrality itself to be based on a guiding framework for categorizing and accounting for land use decisions and the impacts of land use and management with respect to a “no net loss” target - using FAO Land Planning Toolbox - will ensure that instruments are in place to enable “like for like” counterbalancing of gains and losses. Through this work, land use decision-makers will be able to track their decisions and determine whether their interventions will be sufficient to counterbalance losses in land-based natural capital, and to reduce the risk of fragmented decision making across the administrative levels. To make integrated land use planning operational, efforts will be put in place to link LDN planning currently done at Governorates admin domain as closely as possible with land information infrastructure to be developed under Outcomes 1.1 and 2.

LDN planning and implementation should involve well-designed participatory processes that include stakeholders, especially land users, in designing, implementing and monitoring interventions to achieve LDN, the Outcome 1.2 will ensure that these processes consider local, traditional and scientific knowledge, applying a mechanism such as multi-stakeholder Platform to ensure these inputs are included in the decision-making process. The process will be sensitive to gender, and imbalances in power and information access. The outcome will be achieved through four outputs.

1.2.1. Assessment of LDN policy gaps and development of cross-sectoral policies/legal framework supporting LDN principles at national level and improving the investment policy focusing on land management

- Review of policies and regulations related to land resources, forestry, water, drought, climate change, and agriculture
- Recommendations for removing and reversing policy drivers that lead to poor land management and for the policy/regulatory frameworks alignment conducive to the LDN achievement
- Identification of entry points for strengthening of stakeholder participation – in particular rangelands cooperatives established under Badia program - in LDN targets implementation at sub-national level, including through gender lenses
- Identification of entry points for strengthening of the policy environment for existing land use planning with bio-physical considerations
- Identification of gaps and constraints related to land tenure, especially for local land users, using FAO VGGT guidelines to ensure tenure rights and security in the pursuit of LD

1.2.2. LDN Platform for stakeholder engagement created at national level

- Establishment of a national LDN Platform for continued outreach and dissemination of good practices and management advice, simultaneously building on the National committee of sustainable development goals and work on the achievement of the SDG goals, and the LDN Working Group
- Website and community of practice/discussion groups on LDN topics
- In-situ validation to interpret monitoring data according to local context and objectives, within agreed guidelines

1.2.3. Inter-sectoral coordination mechanisms strengthened at all levels for LDN implementation, ensuring upward and downward accountability and transparency

- Gap analysis of the existing mechanisms for implementation of the UNCCD NAP and LDN for the coordination of integrated land use and management planning across scales and sectors to ensure stakeholder input to national and international decision-making and reporting, and for the timely review of implementation outcomes and recommendations for improvement
- Development of new TORs for the existing LDN Working Group that integrates LDN implementation and strengthening of its mandate
- Establishment of inter-sectoral coordination mechanisms to support participatory LDN implementation, including rangeland cooperatives established by Badia program, at the landscape scale in each Governorate
- Strengthening of rangelands cooperatives and other associations participation
- Introducing a quota (at least 30%) for women's participation in local multi-stakeholders groups established in target Governorates

1.2.4. Integrated land use planning and drought management using FAO Land Resources Planning Toolbox elaborated, consulted, and adopted by authorities in the Irbid, Mafraq, and Ajloun Governorates

- Integration of LDN principles on participatory approaches at landscape level (watersheds, drylands) into the existing administrative planning processes at Governorates level
- Strengthening of the LDN inter-sectoral working group with land use planning processes
- Land suitability analysis to integrate socio-economic conditions and implement participatory LUP approach
- Categorizing and accounting for land use decisions and the impacts of land use and management with respect to a "no net loss" target (done at land use type level)
- Sub-indicators of climate variability/drought tested in the target watersheds and SOC Models

Outcome 1.3. Enhanced capacity at national and sub-national levels to achieve LDN in Irbid, Mafraq, and Ajloun Governorates. This outcome focuses on enhancing the capacity of technical staff in the line ministries at the national level, and extension staff and local communities in the target Governorates for LDN implementation that achieves a positive net balance in productive land through SLM and land restoration. A total X people (number TBC during PPG, 50% women) will be trained to get enhanced capacity in LDN at national and sub-national levels. The outcome will be achieved through two outputs.

1.3.1. Knowledge products on SLM and LDN prepared and shared

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

1.3.2. Capacity development and awareness raising program in place targeting stakeholders and policy makers for LDN targets implementation and monitoring

- Training in LDN of decision makers and technical staff at the national level on baseline assessment and LDN monitoring, land tenure issues, etc.
- Training in LDN of local government staff on baseline assessment, monitoring, SLM and involvement of local stakeholders
- Training of farmers in use of practical tools to identify suitable SLM interventions and land use monitoring that will contribute to LDN
- Development of an LDN index for awareness raising at national level

Component 2. Demonstrating the LDN approach and scaling out SLM practices and approaches in the landscapes of Irbid, Mafraq, and Ajloun Governorates

Outcome 2.1. Improved Land Cover/Management, Land Productivity, and SOC through SLM/DLDD technologies and approaches in the landscapes of in the Irbid, Mafraq, and Ajloun Governorates.

Building on various assessments and processes developed under Component 1, various SLM and restoration approaches and technologies will be applied with a special focus on integrated approaches using agro-forestry, afforestation integrated crop/livestock production systems, water harvesting, grazing of riparian zones, grazing crop residues to allow vegetation recovery, pasture and crop rotation, organic manure, soil moisture harvesting, drip irrigation. Participatory integrated land-use plans will be developed and used as a basis for scaling up of good practices. SLM will be scaled up to cover 10,000ha of agricultural land and 4,000 ha of rangelands, and 1,000 ha of forest land. It is expected that these targeted land degradation investments will lead to multiple environmental co-benefits – biodiversity conservation and climate change adaptation and mitigation, specifically contributing to sequestration of 1,347,905 tCO₂eq. In terms of socio-economic benefits, there will be 10,000 direct beneficiaries of which 50% will be women. There will be a strong focus on engaging stakeholders and ensure gender-balanced benefits. LDN hierarchy of responses will be applied: avoiding degradation will be the highest priority, followed by reducing degradation and finally reversing past degradation. This will be achieved through five outputs.

2.1.1. Participatory integrated land-use plans developed and priorities identified by the DSS in the Irbid, Mafraq and Ajloun Governorates

- Participatory integrated land-use plans developed with local communities using e.g. LADA/WOCAT
- Integration of the integrated land management plans with other community and administrative-level planning processes

2.1.2. Innovative and integrated Sustainable Land/Water Management practices and technologies adopted in farmer field schools (FFS) to enhance land productivity, restore degraded land and reduce pressure on NR (e.g. agro-forestry, afforestation integrated crop/livestock production systems, water harvesting, grazing of riparian zones, grazing crop residues to allow vegetation recovery, pasture and crop rotation, organic manure, soil moisture harvesting, drip irrigation)

- At least 100 FFS established and ToT conducted in the in the Irbid, Mafraq, and Ajloun Governorates landscapes to engage farmers in LDN implementation
- Training of farmers in use of practical tools, such as LADA and WOCAT, to identify suitable SLM interventions that will contribute to LDN implementation and monitoring
- Implementation of sustainable management practices for water management within the land use plans developed under Output 2.1.1
- Implementation of sustainable management practices for rangeland management and restoration within the land use plans developed under Output 2.1.1
- Implementation of sustainable management practices for forest management and restoration within the land use plans developed under Output 2.1.1
- Implementation of sustainable management practices for cropland management and restoration within the land use plans developed under Output 2.1.1
- Public-private sector partnership to invest in SLM in target landscapes

Output 2.1.3. Measures and approaches for reducing the impacts of drought integrated into SLM practices and tested/demonstrated in the context of FFS

- Integration of drought into sustainable management practices for land/water management (developed under Output 2.1.2) within the land use plans (developed under Output 2.1.1) (e.g. increase water supply, decreasing water demand by agriculture sectors, crop insurance, assess risk profile of watersheds, mapping drought hotspots, etc.)
- Upscaling of a proactive drought risk management approaches and technologies in production landscapes

Output 2.1.4. Introduction of gender sensitive sustainable livelihood strategies

- Interviews with target groups using questionnaires
- Preparation of Gender Action Plans for the target watersheds and other landscapes
- Introduction of locally-appropriate livelihood strategies within the land use plans developed under Output 2.1.1

Outcome 2.2. Increased investments in sustainable land management to achieve LDN. The three target governorates are diverse and value chains prioritized include vegetables, olives, figs ,and grapes. These are high-value crops that also have a considerable lower water and carbon footprint. In order to lift pressure from the production, processing and marketing of these crops on the forest reserves and biodiversity hotspots in the targeted areas, agro-forestry approaches, and integrated crop/livestock production systems approaches will be introduced to improve agricultural production and biodiversity enhancement. Local communities' access to markets will be improved through strengthening of at least four value-chains that will result in increased incomes from vegetables, olives, figs and grapes. This will be achieved through three outputs.

2.2.1. LDN Action Plan with voluntary targets defined in the landscapes of Irbid, Mafraq, and Ajloun Governorates

- Preparation of an implementation plan with for achieving LDN targets in the Irbid, Mafraq, and Ajloun Governorates
- Identification of possible sources of financing for scaling up of SLM to achieve LDN at national and sub-national levels, including from line ministries, donors, climate finance, private sector, in-kind contributions from communities, cooperatives, etc.
- Development of resource mobilization plans at national and sub-national level to scale up LDN.

2.2.2. Market access mechanism identified and key value chains (i.e. vegetables, olives, figs and grapes) strengthened to achieve LDN in the landscapes of Irbid, Mafraq, and Ajloun Governorates

- EX ACT value chains tool analysis
- Social life cycle assessments (SLCAs) and life cycle sustainability assessments (LCSAs) of the selected value chains conducted including land use indicators
- Assessment of market mechanisms for each target value chain
- Selection of the value chains to be supported based on the EX ACT VC, SLCA, and LCSA results and assuring that at least one of them is focused on women only.
- Target value chains interventions resulting in increased revenue of local population
- Public-private sector partnership to invest in SLM in target landscapes

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

- Targeted training programs based on the analyses conducted under Outputs 2.2.1 and 2.2.2
- Training program in business planning for women entrepreneurs that perform critical functions along selected value chains.

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Component 3. Project Monitoring, Evaluation and lesson learned

Outcome 3.1. Knowledge management, M&E and lessons learned disseminated. Components 1 and 2 will target LDN neutrality that is assessed by monitoring the LDN indicators, relative to a fixed baseline. The neutrality needs will be maintained over time, through land use planning that anticipates losses and plans gains. Component 3 applies adaptive learning by tracking impacts to enable mid-course adjustments and ensure that neutrality is maintained in the future. Monitoring will be viewed as a vehicle for **learning** and provide opportunities for capacity building, basis for testing hypotheses that underpin the counterbalancing decisions and the interventions implemented, the LDN concept, and this conceptual framework; and knowledge to inform adaptive management. This outcome includes a functioning project M&E system and mid-term and final evaluation. Global environmental benefits generated by the project will also be assessed together with co-benefits and costs of SLM. It also includes the project's knowledge management and knowledge products will be widely disseminated to support out and upscaling of the LDN approach. It will be generated by three outputs.

3.1.1 Project mid-term and final evaluation conducted.

- Project mid-term evaluation
- Project final evaluation

3.1.2 Global Environment Benefits, co-benefits and costs of SLM monitored, assessed and lessons analyzed.

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

3.1.3 Gender-focused communication strategy developed and implemented to support SLM scaling up to meet LDN targets

- Development of communication strategy in consultation with key national and sub-national stakeholders.
- Adoption of the communication strategy by the national LDN coordination mechanism that will be established in Component 1

4) Alignment with GEF focal area and/or Impact Program strategies

The project is aligned with the following 2 LD focal area programmes:

LD-1-1 Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM); and

LD-2-5 Create enabling environments to support scaling up and mainstreaming of SLM and LDN.

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF and co-financing.

GEF support provides an opportunity to integrate landscape management principles into sector strategies and ensure strong linkages between sectors to generate environmental and socio-economic benefits, as well as to engage multiple stakeholders at multiple scales, as per LDN requirements. GEF support will strengthen capacities at national and sub-national level to achieve land degradation neutrality and no net loss of productive land. The GEF supported sustainable land and water measures will also enhance the resilience of the landscapes in Irbid, Mafraq, and Ajloun Governorates to drought and other climate-change induced stress and shocks. The project with GEF support will also be building sustainable livelihoods through SLM practices and improve market access through effective private sector engagement through targeted value chains. Without incremental GEF funding, the observed land degradation trends, lack of inter-sectoral collaboration, and unsustainable land and water management practices, will lead to further loss of ecosystem services and global environmental goods, loss of socio-economic opportunities for local communities, and biodiversity conservation co-benefits. The project will have three components where GEF support builds on the strong national baseline already in place to strengthen the management of degraded lands that lead to Land Degradation-Neutral Jordan.

The table below maps the co-financing against the different project components.

Nature of co-financing		C1	C2	C3	PMC	TOTAL
MOE Badia Restoration Programme	Grant	\$ 4,000,000	\$ 10,000,000			\$ 14,000,000
FAO Enhancing resilient livelihoods and food security project	Grant		\$ 1,500,000	\$ 500,000		\$ 2,000,000
IFAD Small Ruminants Investment project	Grant	\$ 500,000	\$ 6,500,000			\$ 7,000,000
MOA	In-kind	\$ 1,000,000		\$ 500,000	\$ 500,000	\$ 2,000,000
Governorate's contributions	in-kind				500,000	\$ 500,000
Local family-farmers	In-kind		\$ 500,000			\$ 500,000
TOTALS		\$ 5,500,000	\$ 18,500,000	\$ 1,000,000	\$ 1,000,000	\$ 26,000,000

Grant contributions to the different project components have been developed in the baseline section of the PIF. The **in-kind contributions** are provided by:

The Ministry of Agriculture will provide in-kind support to the GEF project, through its recurrent investments in the technical implementation office in each of the three target Governorates. Furthermore, MoA is the owner of the national Land Use Planning (LUP) and soil data, and will make this data available to the benefit of the project.

The Governorates of Mafraq, Ajloun and Irbid will provide in-kind contributions in the form of vehicles, meeting facilities, training facilities, infrastructure and other, and support the overall management of the project implementation.

Local family-farmers, the beneficiaries of the project, will make time, labour, land, agricultural inputs, and more available and are likely to invest into the value chain development efforts under component 2. These inputs are valued and will be fine-tuned during the PPG phase.

6) Global environmental benefits (GEFTF) and/or adaptation benefits

The global environment benefits expected to be delivered through the GEF project, are the following: (i) 2,750 ha of land restored, including 2,000ha of cropland, 500 ha of grassland and 250 ha of forested land; (ii) 15,000 ha of production land under improved practices, including 10,000 ha of cropland, 4,000 ha of grassland and 1,000 ha of forested land. The restoration and sustainable land management will also deliver carbon benefits, as an estimated 1,347,905 t CO₂e will be sequestered. EX ACT (uploaded in the Roadmap section of the Portal) has been used to calculate the carbon benefits of the project.

A number of socio-economic benefits have been included in the project results matrix, including a number of gender sensitive and sex-disaggregated indicators. It is expected that a total of 6,250 women and 6,250 men will benefit directly from project activities.

The project is also delivering on 2 SDG targets, as outlined in the table below.

SDG #	SDG	Targets	Indicators	Project's Direct Contributions
15	Life on Land: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation	15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	15.2.1 Progress towards sustainable forest management	Project will help restore and sustainably manage 1,000 ha of degraded forests
		15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world	15.3.1 Proportion of land that is degraded over total land area	The project will strengthen the capacities of local farmers and agro-pastoral communities to put 10,000 ha of degraded crop lands, 4,000 ha of rangeland under SLM practices

7) Innovation, sustainability and potential for scaling-up

The focus of the project is to tackle the root causes of degradation and achieve land degradation neutrality. Therefore, the project's results matrix is rooted in the LDN TPP to allow for alignment with the UNCCD guidance.

Innovation is guaranteed through SLM/ DLDD measures, practices and technologies that are being introduced at the project site level, and through the approaches deployed for capacity development (farmer field schools). The project will promote innovative measures (community based management, modern landscape management approaches and technologies, promoting an integrated landscape approach) for the conservation and management of targeted Governorates in Northern Jordan in order to (i) combat existing threats and barriers, (ii) support cooperation and collaboration among existing stakeholders, and (iii) increase the capacity and supporting services provided by the targeted ecosystems. The main innovation in the project is in its focus – on tackling land degradation and neutrality in the Northern Governorates of Jordan.

Sustainability of project results is facilitated by the project approaches. Rather than developing new systems, the project will make best use of existing land based data collection/monitoring systems in place (which will be analyzed thoroughly for LDN fitness during the PPG), existing institutional arrangements to address multi-sector, multi-level and multi-stakeholder challenges, existing mechanisms that support data and evidence-based decision making. The project

will value and further develop the technical and institutional capacities to align and deliver on the LDN targets. For instance, national policies will be assessed and SLM/DLDD and LDN integrated, and existing monitoring systems will be updated/re-aligned. Rooting the project deliverables in the existing provisions to address degradation ensures sustainability of project results.

SLM/DLDD and LDN capacity development efforts piloted during the project will be sustained thanks to the involvement of universities. Universities will be engaged in e.g. the development of specific curricula, university students will be involved in social life cycle assessments and life cycle sustainability assessments, and Master theses will address data and information gaps, therefore embedding SLM/DLDD and LDN in university curricula.

Component 1 outputs also invest considerably into awareness raising of decision-makers and policy-makers. Awareness raising is believed to contribute to behavioral changes and changed attitudes towards land, needed in order to sustainably address the root causes of the degradation problems.

A focus on livelihood development and socio-economic improvements for vulnerable family-farmers, in particular women and youth, contribute significantly to the sustainability of field based activities and results.

Scaling-up, scaling-out and scaling-in potentials of the project are the focus deliverable of component 3 of the project, and facilitated by the LDN process engaged at the national level.

[1] Government of Jordan, 2006

[2] Government of Jordan 2015a. Integrated Financing Strategy for Combatting Desertification of Jordan. Aligned National Action Plan to Combat Desertification in Jordan 2015-2020

[3] Growing demand results from population growth, Syrian Refugees crisis, and a decline in springs discharge by 50% and decrease in wells productivity due to climate change and drought. Investment needs to achieve the desired development rates from the development plans set by the government are not met, hampering social and economic growth.

[4] Government of Jordan, 2015d

[5] The Badia region makes up part of Jordan, Syria, Saudi Arabia and Iraq

[6] <https://www.eib.org/fr/projects/pipelines/all/20140150>

[7] <http://www.fao.org/3/i8324en/i8324en.pdf>

[8]

http://stapgef.org/sites/default/files/publications/Guidelines%20for%20the%20application%20of%20the%20Scientific%20Conceptual%20Framework%20for%20LDN_0.pdf

[1] The Aligned National Action Plan to Combat Desertification in Jordan, 2015– 2020 (GoJ, 2015a)

1b. Project Map and Coordinates

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

Please, refer to Annex A.

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:

The preparation of this PIF involved a structured and detailed consultation with the following stakeholders and stakeholder groups:

- **Ministry of Agriculture:** All concerned technical departments were consulted and participated in focus group meetings. The Ministry of Agriculture also assisted in facilitating consultations with local agencies, site visits and organizing consultative workshops;
- **Other national government agencies:** Most notably the Badia Restoration Program coordination office was consulted on several occasions and participated in general meetings as well as focus group meetings;
- **Local agricultural offices:** Site visits to local agricultural offices were made to Mafraq Governorate. Consultations were held by telephone with representatives from all northern Governorate offices. A planning workshop was held involving representatives from all northern Governorate offices. The local agricultural offices played a leading role in identifying challenges and possible solutions;
- **Technical experts from universities:** Providing data and information, and helping with the consultation of international projects;
- **Non-governmental organizations:** NGOs and CSOs were consulted and involved in project conception, project planning and initial design;
- **Farmers:** Site visits were held to observe the situation at the household level and the challenges facing farmers, as well as the resources at their disposal. This occurred in Mafraq governorate; These meetings included women and youth. (Please, note that farmers, and particularly the small-scale family farmers targeted by the project activities, are the private sector and the local communities stakeholder groups specifically inquired about in this question.)

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

Stakeholder	Role in the project
Ministry of Agriculture	The Ministry of Agriculture will be the project execution agency and Chair the Project Steering Committee. The ministry will coordinate the execution in partnership with strategic partners. The agency will also provide guidance and technical support for project implementation, monitoring of results, as well as presentation of project progress reports. It will prepare agricultural plans, budgets and policy, and carry out nationwide dissemination and scaling-up of practices and technologies; It will also provide co-financing.
Agricultural Units at Governorate level	The Agricultural Units implement agricultural plans and policy in the governorate and function as a link between the farmers and experts in the national government. The units are also in charge of regulation and monitoring of the use of agricultural and natural resources, and provide extension of best practices and technologies across the governorates. During implementation they will (i) su

	<p>of best practices and technologies across the governorates. During implementation they will (i) support project activities at governorate level; (ii) contribute to problem solving at household level; (iii) promote replication of best practices in the governorate; and (iv) be the beneficiaries of capacity development.</p>
Badia Restoration Programme (BRP) Coordination Unit	<p>This unit channel funds to appropriate projects and activities, monitor the activities supported and extract lessons learned. It will be member of the project Steering Committee, an important co-financing source, and responsible for scaling up the project outcomes after implementation.</p>
Villages and local beneficiary groups (small-scale farmers),	<p>The local small-scale agricultural farmers in the villages are most often the land owners, and therefore responsible for sustainable management of their land. They will be beneficiaries of project support including capacity development, and contribute to problem solving at household level.</p>
Community-based organizations	<p>These organizations will be beneficiaries of training, technical assistance and incentives to promote sustainable production practices. Additional consultations will be conducted during the PPG to define their roles in strengthening territorial governance at the local level, restoring degraded ecosystems, and sustainable production.</p>
Private sector	<p>Private sector stakeholders provide technical support to national and local actors and could have a role in the project. Private service providers collect and retain the latest information and knowledge on agricultural best practices, techniques and technologies from international sources, undertake simple trials on agricultural practices under national conditions, and provide training and technical support to the agricultural sector. They will have the role of service providers in the project and could be a channel for introducing new methods and technologies. During the PPG a more detailed mapping of the private sector actors will be completed.</p>
CSOs and NGOs	<p>There is a long tradition of farmers in Jordan establishing self-support groups, associations and civil society organizations. These play a strong role in the social and economic capacity of the villages, provide an entry point for training and technical support and a sounding board for ensuring that technical support will be appropriate in the local context. Multiple CSOs and NGOs work in Jordan support these efforts and during project implementation they will provide information and knowledge regarding SLM, biodiversity conservation, community development, gender inclusion and sustainable production practices. These include IUCN Jordan, Jdaitta Cooperative society, Jdaitta Charity Society, and others.</p> <p>Jordan Farmers Union, its local branches, and local associations of small farmers and cattle farmers would also have a role in the project, most of all as vehicles for training and advisory services. During the PPG a more detailed mapping of the CSOs and NGOs will be completed.</p>
Academic and research institutions	<p>Universities and research institutions will contribute with information about degraded lands, best practices on sustainable agricultural, agroforestry and livestock practices, monitoring of land use and biodiversity. These include the National Center for Agricultural Research and Extension (NCA</p>

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and biodiversity. These include the National Center for Agricultural Research and Extension (NCARE), the Royal Scientific Society (RSS). The University of Jordan, Jordan University for Science and Technology (JUST), Hashemite University, and Mutah University through their Agricultural faculties have carried out extensive researches in the area of land use, water conservation, land management, and biodiversity.

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).

USAID performed a gender analysis and assessment of Jordan in 2012. The study found that Jordan had begun to transition to a knowledge-based economy, and as such it had invested in its people, and this has helped the process towards reducing gender disparities and improving the status of women. However, it found that Jordan continues to face several challenging gender issues. These include a poor female participation in the labour market, persistent gender stereotypes about the roles of females and males, and conservative cultural norms that restrict the ability of females to make decisions about their lives. Whilst the study recognized that progress has been made, it found that the economic crisis and an increasing stratification of society remain major challenges. For example, young females expect to find a husband who will support them and their children without having to work outside the home.

Gender issues are more pertinent in rural areas, including in Northern Jordan. Women play a crucial role in increasing agricultural output, enhancing food security and nutrition in the household, and promoting overall development. For example, in Irbid and Mafraq approximately 11% of households are female headed. Amongst these female headed households, less than 80% are considered 'acceptably food secure', whereas the corresponding figure for male headed households is over 90%. In both cases the Jordanian population fared worse than the immigrant refugee community. In areas where access to land and water resources are limited, women notoriously suffer, and in particular do women-headed households. In Irbid, some community based organizations (CBO) are managed by women (Hobras Village, Beni Kenana) and supported by various agencies. The CBO tried to establish greenhouses using hydroponics technology using very limited water. But such, initiatives are hampered by climate change causing water scarcity that became worse because of the refugees' influx (Ministry of Environment of Jordan, 2017).

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.

The private sector is understood as the small-scale family farmers. They will be the direct beneficiaries of the project, but they are also considerably contributing to the implementation of project activities and eventually contribute as co-financiers in the project delivery. The success of the project, and in particular the demonstration and later up-take and multiplication of SLM/DLDD and LDN approaches, practices and technologies, is therefore dependent upon the engagement of the private sector in the project.

Furthermore, an effort will be made to engage larger scale private sector stakeholders during the PPG and project implementation. Particularly the participation of the agribusiness industry will be sought for, as their investment potential can more quickly bring to scale SLM/DLDD and LDN practices and technologies. Investments of the private sector are needed on-farm and to improve the efficiency of the value chains for agricultural and agroforestry products, reduced food losses and waste control management systems and marketing organization (ensuring trustworthy market outlets).

5. Risks

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

The following risk matrix will be updated during the PPG, and be one of the tools for project monitoring.

Risk	Level*	Risk Mitigation Strategy
The expected results of the project are sensitive to the potential impacts of climate change and related natural disasters	M	The project management will coordinate and exchange information with government agencies and projects in charge of climate change adaptation and disaster risk management, to assure to be well informed and take the necessary precautions. In case parts of the project area is at high risk for natural disasters (drought, flooding, landslides), the necessary risk mitigation will be defined.
Limited interest by local farmers to adopt SLM practices	L	The PPG study will cover many villages and assure that the project would work with areas where the population is not only in need of support, but also motivated and well organized. A simple competitive model will be used for allocation of project funds on local level, based on village proposals.
Governorates have low capacity and insufficient resources to comply with their expected role	M	This risk will be mitigated through strong emphasis on training and capacity building of the governorates especially in the first period of project implementation.
Regional politics or conflicts could affect socio-economic situation and number of refugees from other countries	H	The project will interact with the Ministry of Agriculture, which will participate in government consultations on this issue. In case there is an increased flow of refugees to the project area, which could negatively impact the project outcomes, FAO would work through the UN system with the goal to achieve additional emergency funding.
International and national financial situation and exchange rate could affect available project resources	M	This is a factor that is difficult to mitigate, however, the project management will continuously monitor the use of resources for each project component and main activities, and if necessary request to transfer funds between components to assure that no activity would be stuck without resources during the implementation period.

In addition to the risk log above, please consider the climate risk screening that has been developed and which is uploaded in the Roadmap Section.

Finally, the project has been screened against Environmental and Social risks in line with FAO's Safeguards, and rated as low risk (see certification in Roadmap section). No FAO Safeguards were triggered in the preliminary screening. Nevertheless, the risk level will be further re-confirmed at PPG stage in line with FAO's policies on safeguards and stakeholder engagement. The Agency will make sure that all mitigation measures vis-a-vis any potential adverse impact are duly considered in the CEO Endorsement Request.

6. Coordination

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

The Executing Partner for this project is the Ministry of Agriculture, which will be responsible for documenting project progress against agreed-upon work plans in accordance with the reporting schedule and formats. The participating Governorates in the region will act as responsible parties, and will all be defined during the PPG phase. It is expected that all the mentioned organizations and other important stakeholders will be part of the Project Steering Committee, which will provide overall guidance and direction to the project. During the PPG, the complete institutional structure of the project will be outlined and a detailed project M&E plan and budget will be defined. The PPG study will review the operational capacities of the Agricultural Units at Governorate level, to decide if these could be engaged as the local executing partners. Under the Operational Partners Implementation Modality (OPIM), the FAO will be in charge of supervising the project implementation, including monitoring and evaluation following the GEF guidelines.

Actions will be coordinated with the GEF projects mentioned under “Baseline Investments”, however additional projects are expected to be included as collaborators during the PPG phase.

The project will make use of lessons learned and best practices resulting from the implementation of different GEF Full Size-, Medium Size- and Small Grants projects (PPG) in Jordan, including but not limited to the projects mentioned in the Baseline. The PPG projects will include experiences in community participation under national circumstances, small-scale farming, diversification of production, erosion control and restoration of degraded lands, biodiversity conservation, support to gender participation, etc.

Despite strong national efforts and synergies with civil society organizations (NGOs/CSOs), as well as collaborations with multiple donor programs, the country’s process of increased land degradation continues to be highly serious.

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

Jordan has developed a regulatory and policy framework consisting of several laws and regulations, among which the most relevant are 1) The Environment protection law (No 6, 2017); 2) The Public Health law (No 54, 2002); 3) The Water Authority's Act (No 62, 2001); 4) The Water Authority Law (No 18, 1988); 5) The Groundwater Monitoring By-law (No 85, 2002); 6) The Ministry of Agriculture Law (No 44, 2002); and 7) The Land use plan (No 6, 2007). Jordan is party to a number of international conventions, including the United Nations Convention to Combat Desertification (UNCCD); the United Nations Convention on Biological Diversity (UNCBD); the Convention for the Conservation of Internationally Important Wetlands (RAMSAR); and the United Nations Framework Convention on Climate Change (UNFCCC).

Jordan ratified the UNCCD in 1996. The project is consistent with the National Action Program (NAP) 2015-2020 under the UNCCD, which aims at: 1) actively influence relevant national and local processes and actors to adequately address desertification/land degradation and drought related issues; 2) addressing the policies, regulations and institutions that will enable coordinated action to address LD at policy level and on the ground, and to integrate effectively with objectives under other global and national commitments; 3) strengthening the collection and use of scientific evidence and knowledge on desertification, land degradation and mitigation of the effects of drought, providing the monitoring system; establishing indicators, improving scientific assessment and effective gathering, validating and sharing of knowledge, including local knowledge, which are critical for cost-effective implementation of SLM as well as appropriate monitoring and evaluation of the NAP; 4) building capacity to prevent and reverse desertification/land degradation and mitigate the effects of drought and to enable sustainable land and ecosystem management; and 5) increasing mobilization and improved coordination of national and external financial and technological resources. The project directly contributes to the LDN targets implementation.

Jordan ratified the UNFCCC in 1993, and has defined its Nationally Determined Contribution (NDC). Jordan's Third National Communication to the UNFCCC that was developed with support from GEF, mentions that the expected impacts from climate change on ecosystems in Jordan according to climate exposure and sensitivity of ecosystems are droughts, forest dieback, community composition change, expansion of drier biomes into marginal lands, habitat degradation and species loss.

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.

Knowledge management activities will be part of Component 3 and will include the systematization of the knowledge generated and the sharing of lessons learned, including through local communities and women's groups. Knowledge products and publications will also be developed. Results from the project will be shared within and beyond the geographic project area through FAO's existing information-sharing networks and forums. Identifying and analyzing lessons learned will be an ongoing process, and one of the project's central contributions to SLM, DLDD and LDN under national and local circumstances.

More specifically, the proposed project will develop a set of manuals and media products that describe the improved practices, measures and technologies, for use by extension workers and producers (Output 3.1.3). These products will document lessons learnt, share validated SLM/SFM options developed under Outcome 2.1. The activities implemented under component 3 – Monitoring, Evaluation and Lessons Learned - will result in a communication strategy that will be implemented to support SLM scaling up to meet LDN targets. In addition, the project's broad participation process, involving relevant policy making, research, extension and institutions, will ensure that knowledge is shared efficiently within the country, including lessons learned from the previous initiatives. SCF will be an important partner for lesson sharing and knowledge management. In addition, FAO's relevant platforms (Pastoralist Hub, Global Agenda for Sustainable Livestock, and others) will be used for sharing of lessons and experiences on sustainable pasture, forst and land management at the international level.

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

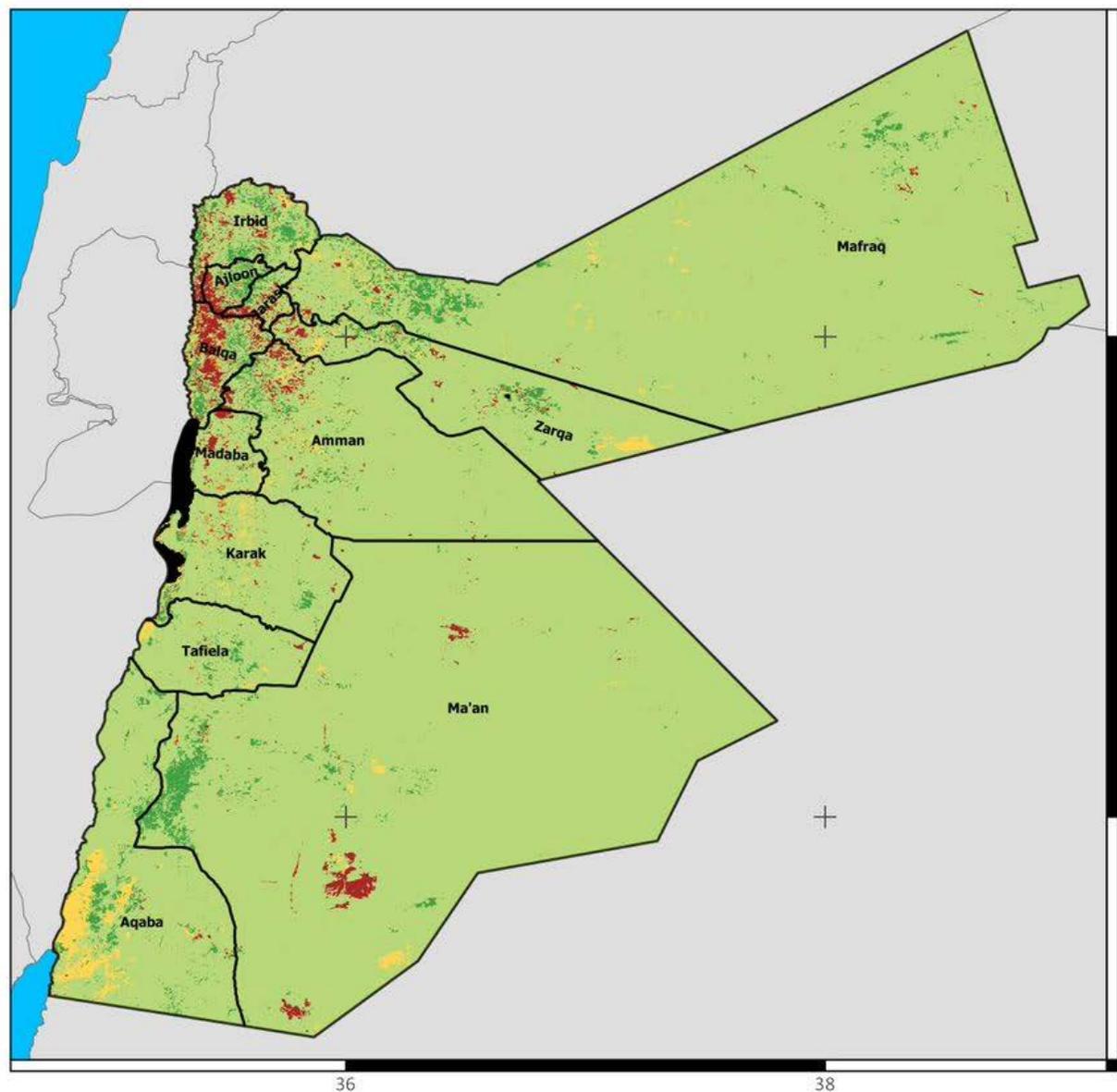
A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Zeina Toukan	Secretary General and OFP	Ministry of Planning and International Planning	3/17/2020

ANNEX A: Project Map and Geographic Coordinates

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

Jordan- Land Productivity Dynamics (2001-2018)



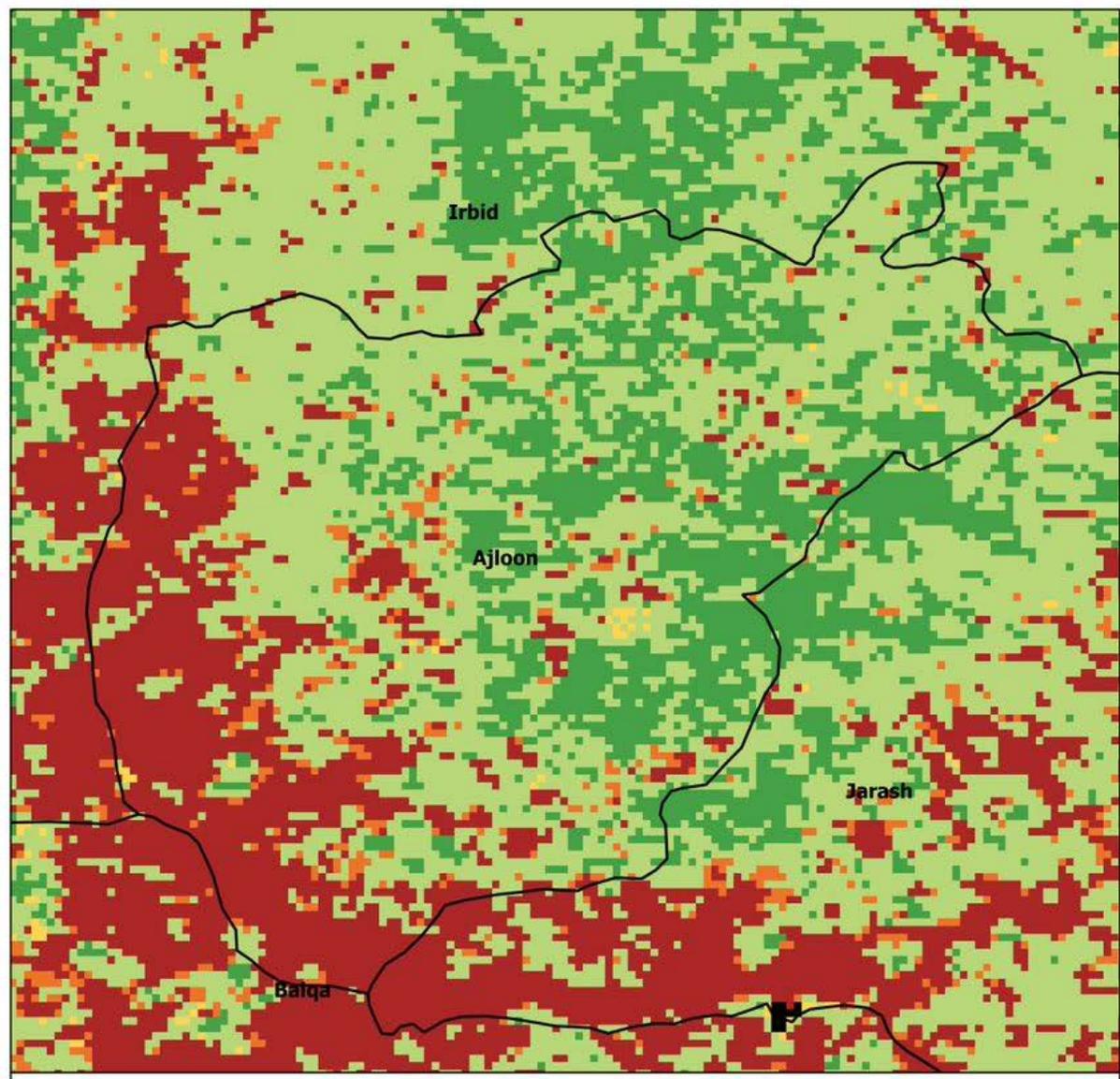
TRENDS.EARTH
tracking land change
from Conservation International

Legend

- Boundaries
- Land productivity (Trends.Earth)
- No data
- Declining
- Early signs of decline
- Stable but stressed
- Stable
- Increasing

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Ajloun Governorate, Jordan- Land Productivity Dynamics (2001-2018)



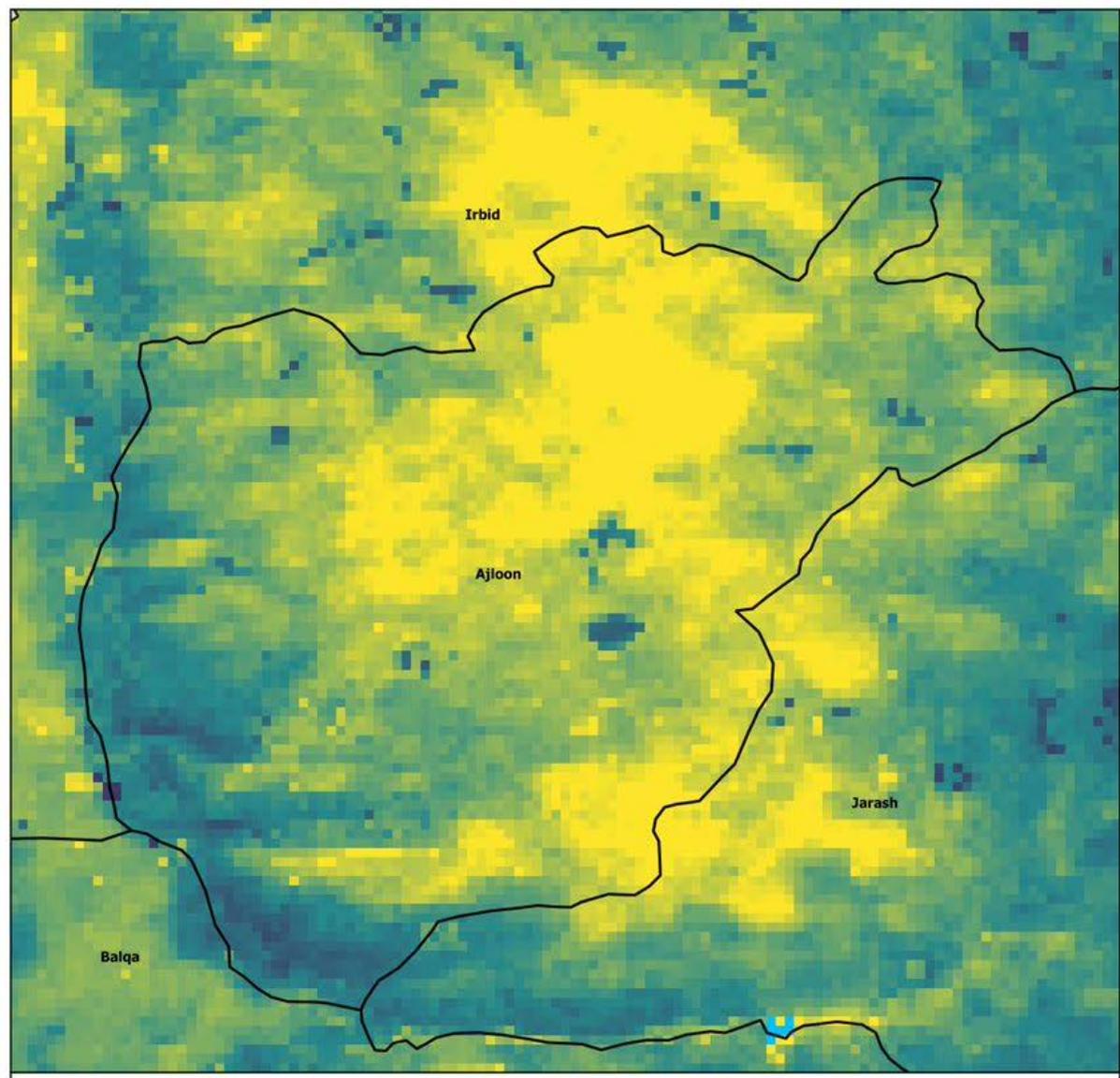
TRENDS.EARTH
tracking land change
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Legend

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Ajloun Governorate, Jordan- Soil Organic carbon (2015)



Food and Agriculture
Organization of the
United Nations

TRENDS.EARTH
tracking land change
from Conservation International

Legend

Boundaries

Soil organic carbon (2015, tons / ha)

No data

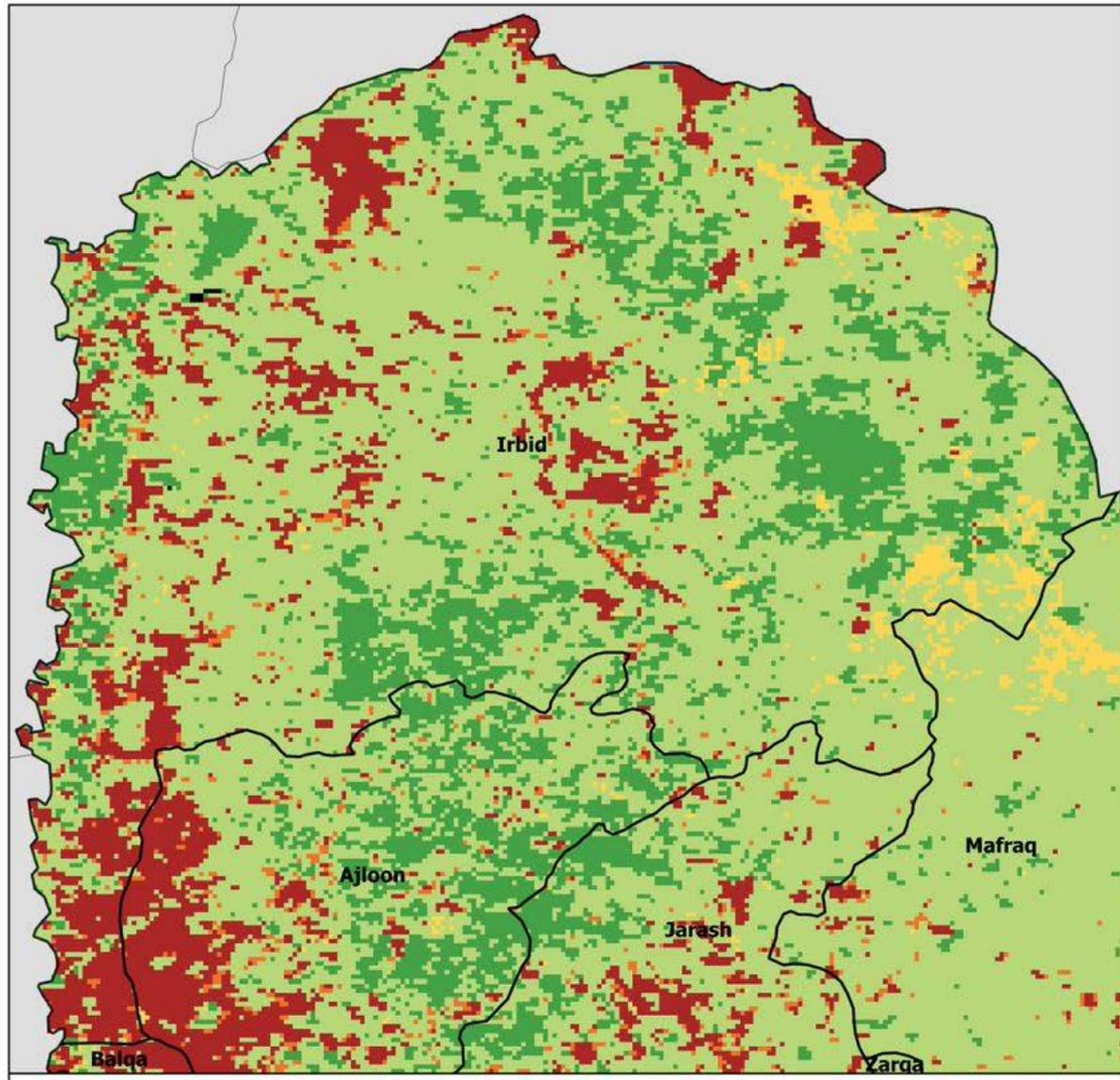
0

32.0

64.0

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Irbid Governorate, Jordan- Land Productivity Dynamics (2001-2018)



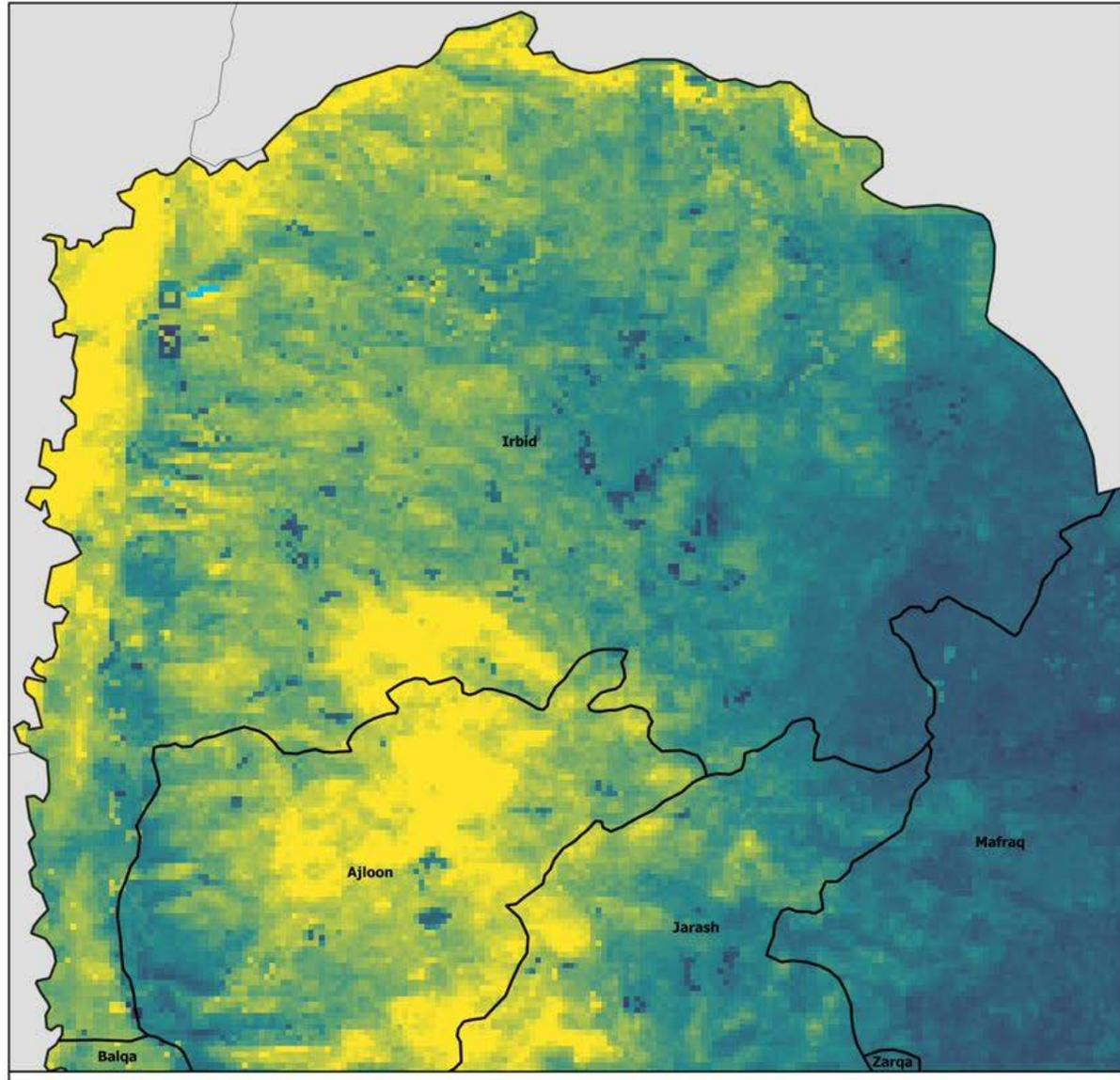
TRENDS.EARTH
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Legend

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 - No data
 - Declining
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Irbid Governorate, Jordan- Soil Organic carbon (2015)



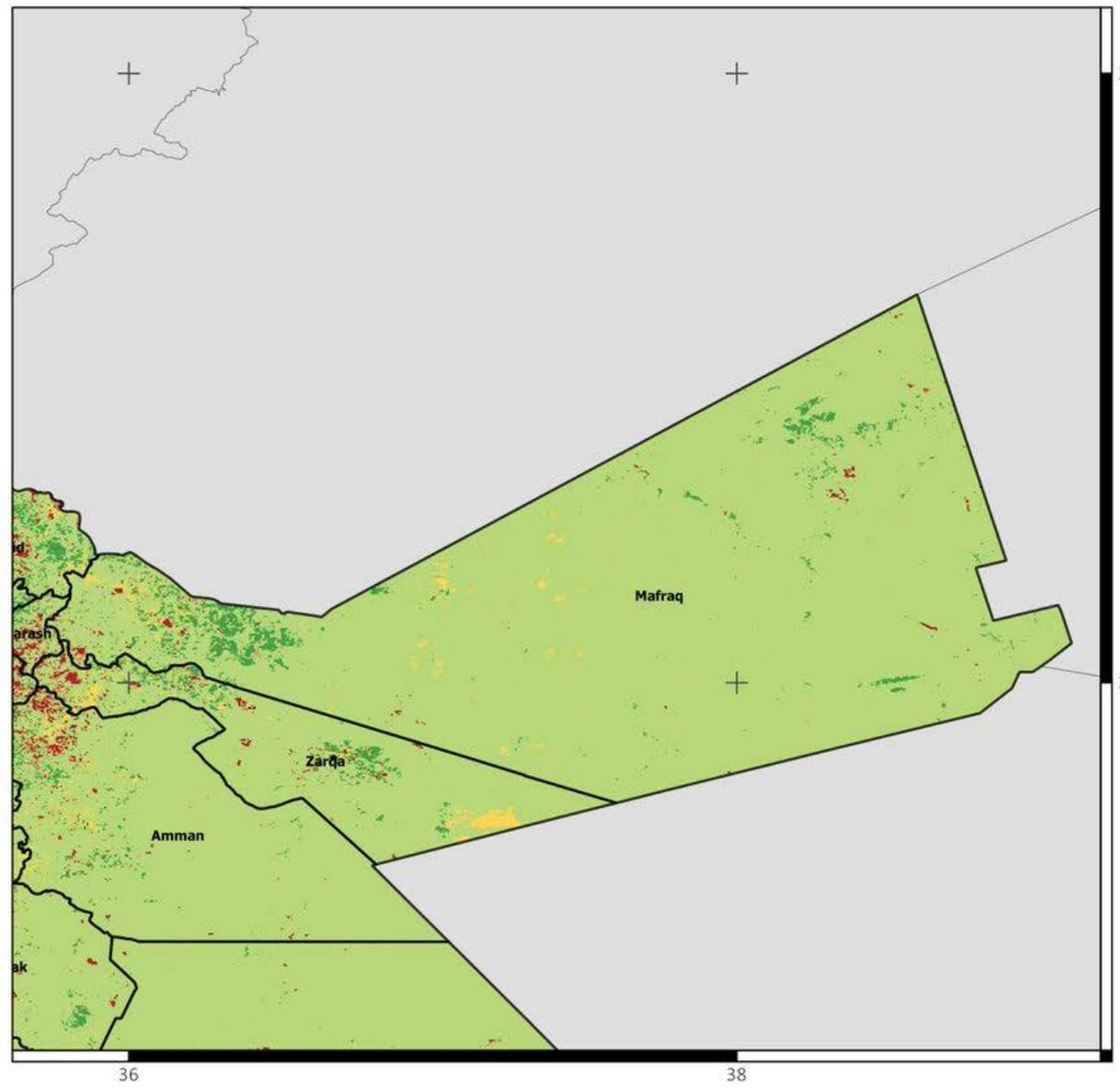
TRENDS.EARTH
tracking land change
from Conservation International

Legend

-  Boundaries
- Soil organic carbon (2015, tons / ha)
-  No data
-  0
-  32.0
-  64.0

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Mafraq Governorate, Jordan- Land Productivity Dynamics (2001-2018)

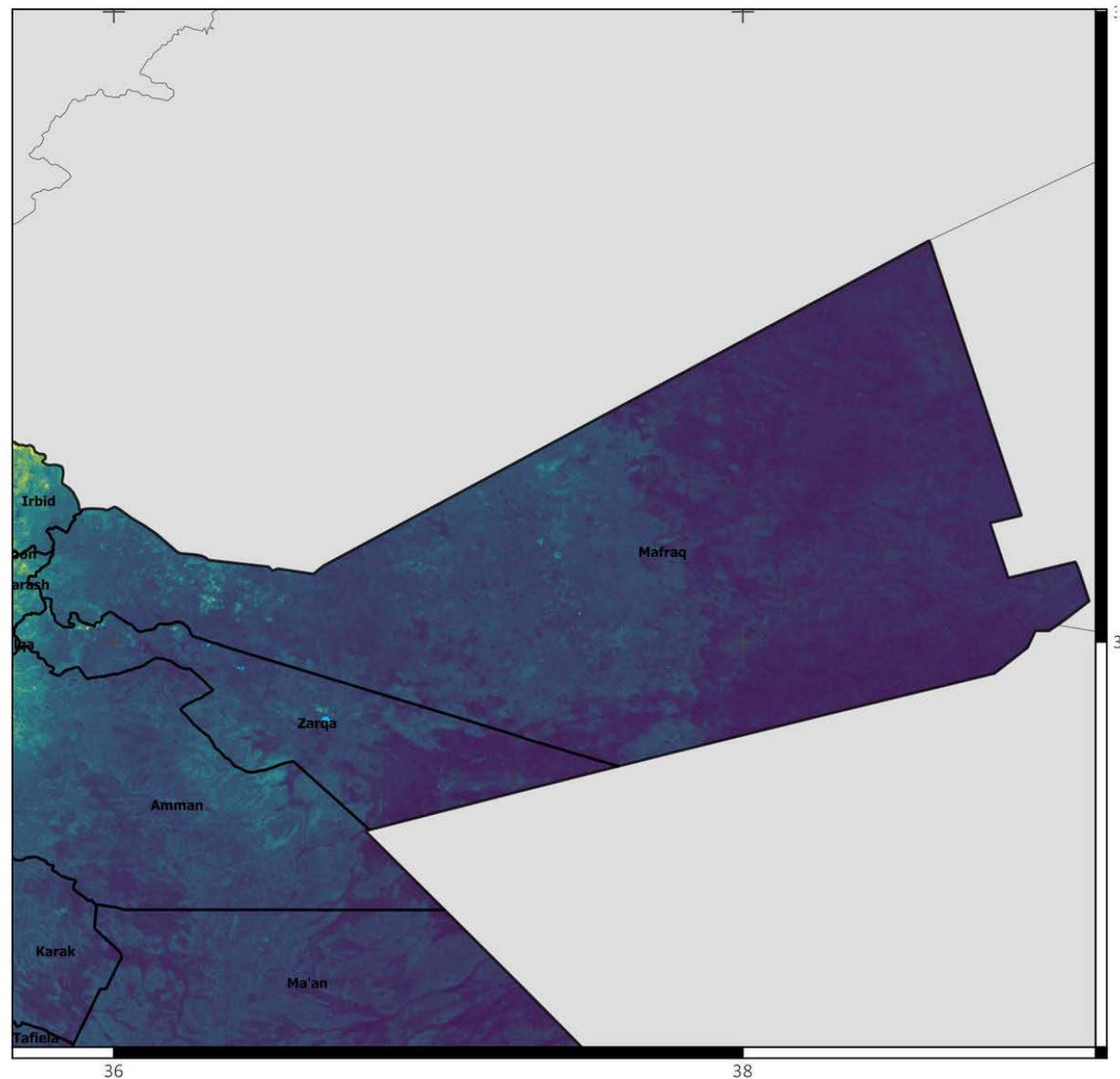


Legend

- Boundaries
- Land productivity (Trends.Earth)
 - No data
 - Declining
 - Early signs of decline
 - Stable but stressed
 - Stable
 - Increasing

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Mafraq Governorate, Jordan- Soil Organic carbon (2015)



TRENDS.EARTH
tracking land change
from Conservation International

Legend

- Boundaries
- Soil organic carbon (2015, tons / ha)
- No data
- 0
- 32.0
- 64.0

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