

#### Achieving land degradation neutrality targets through restoration and sustainable management of degraded land in Northern Jordan, 2023-2026

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land is a dynamic, multi-functional resource for producing food and providing other ecosystem goods and services



Water, Environment and Climate Change Centre

#### **Royal Scientific Society (RSS)**

The Royal Scientific Society (RSS) is an independent non-governmental, not-for-profit multidisciplinary science institution established by Royal Charter.

Founded in 1970 as a national organisation to actively support the development of Jordan with sound technical and policy advice, testing services and consultations.





Since our inception as an independent body with a national remit, our primary objectives have been clear:

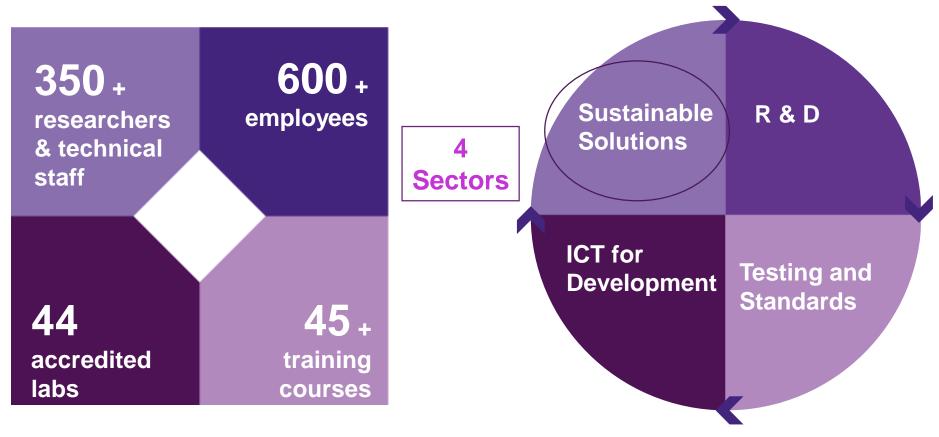
- To protect human health and safety.
- To safeguard the environment and Jordan's precious natural resources.
- To help define and deliver sustainable economic development.





## The RSS in numbers 2018

With 50 years of accumulated knowledge and technical skills, the RSS counts as the largest and oldest science reference point for Jordan.

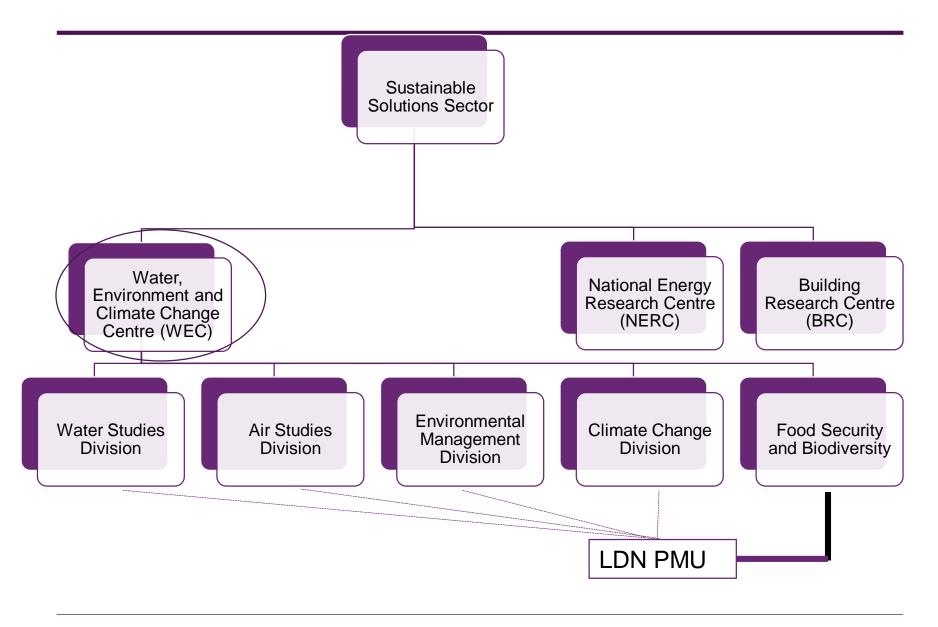








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## **1. Land Degradation in Jordan**

ICARDA (2012) established that approximately 41% of Jordan's total land area could be characterized as degraded 22% of the total land mass is classified as moderately degraded and with evidence of associated agricultural productivity losses

Recent data on the associated costs of LD in Jordan is not readily available, though the World Bank placed it at approximately 3.1% of GDP, or approximately 300 million USD in 2004

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





#### **1. Land Degradation in Jordan**

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 Restoration Program (BRP).

Established and supported a total of 32 rangeland-based cooperatives that organised herders to enhance market opportunities and ensure sustainable management of the natural resource base. 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.





## **1. Land Degradation in Jordan**

**National Land Rehabilitation Program**. 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, beekeeping).

Pasture or range reserves: 41 reserve covering 77,570 ha RSCN established 9 nature reserves with area approximately 128000 ha FAO project: Enhancing resilient livelihoods and food security of host communities and Syrian refugees in Jordan and Lebanon through the promotion of sustainable agricultural development

The Small Ruminants Investment and Graduating Households in Transition 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.







## 1. Main Goal

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

The objective of the Project is to Support the achievement of SDGs 15.2 and 15.3, and delivering Jordan local LDN-Targets mainly 1,2,3 and 5

## SDG 15: life on land

**SDG 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

**SDG 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







#### 3. LDN local targets

Jordan, as a signatory to the UNCCD, has committed to set voluntary Land Degradation Neutrality (LDN) targets in August 2016:

- **Target 1:** By 2030, promote the implementation of community based forest management, 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







**Target 3:** Improve the productivity by at least 10% of 100,000 ha of the rangeland reserve areas by the year 2030

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

**Target 5:** improve the productivity of 10 000 ha of bare land and other areas by the year 2030.

https://knowledge.unccd.int/sites/default/files/ldn\_targets/2019-05/Jordan%20LDN%20TSP%20Country%20Report.pdf





#### 4. Project's Components

#### The LDN project consists of 3 components

Component 1. Enabling Environment for Land Degradation Neutrality (LDN) planning and monitoring Component 2. Demonstrating the LDN approach and scaling out SLM practices and approaches in selected landscapes in the Ajloun, Irbid and Mafraq Governorates Component 3. Project Monitoring, Evaluation and lesson learned







#### 4. Project's Components

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

1.1. Land use planning and monitoring frameworks

strengthened at national and subnational levels to support LDN 1.2. LDN mainstreamed in national policy/regulatory and institutional frameworks and land use planning processes

1.3. Enhanced capacity at national and sub-national levels to support the achievement of LDN in targeted Governorates







#### Major activities under the first component.

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. LDN Platform and Inter-sectoral coordination mechanisms for stakeholder engagement created at national level

Enhanced capacity at national and subnational levels to support the achievement of LDN in Irbid, Mafraq, and Ajloun Governorates







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

2.2 Improved Land Cover/Management, Land Productivity, and SOC through the application of SLM/DLDD practices and approaches in selected landscapes of the Aljoun, Irbid and Mafraq governorates

2.2. Increased investments in sustainable land management to achieve LDN







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# Major activities under the second component.

Innovative and integrated Sustainable Land/Water Management practices and technologies adopted in farmer field schools (FFS) to enhance LDN indicators and reduce pressure on Natural Resources Market access mechanism identified and key value chains (i.e. vegetables, dairy, olives, beekeeping) strengthened to achieve LDN in the landscapes of Irbid, Mafraq, and Ajloun Governorate Training programs on value-chains management (e.g. marketing, processing, certification) for local communities, extension services, farmers, women groups, and youth









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## Thank you

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