

JORDAN

Ecosystem-based Adaptation

2024-2032



SUSTAINABLE DEVELOPMENT GOALS



Benefitting 1,200 smallholder farming households with new climate-resilient farming interventions, while providing 2,800 households with rooftop rainwater harvesting infrastructure.



Increasing Jordan's annual water supply by approximately 9 million cubic meters. The establishment of a Water Fund will enhance water security and climate resilience for 1 million people in the Jordan Valley.



Providing training to policy- and decision-makers on integrating climate-resilient Integrated Water Resources Management into government policies, while producing a range of climate adaptation knowledge products and policy briefs.



Protecting and restoring 12,000 hectares of watershed ecosystems in the northern Jordan Valley using both passive and active restoration techniques.

UN
environment
programme

PROJECT TITLE:

JORDAN INTEGRATED LANDSCAPE MANAGEMENT INITIATIVE (JILMI)

EXECUTING ENTITIES:



International Union for Conservation of Nature (IUCN)



Ministry of Environment, Government of Jordan

KEY TARGETS:

1,000,000

Individuals benefiting from improved water security and climate resilience (246,942 direct and 756,000 indirect).

12,000

Watershed ecosystems in the north Jordan Valley protected and restored.

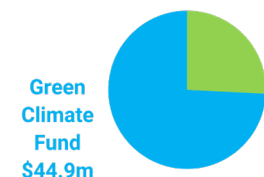
1MW

Floating solar panels installed supplying renewable energy to the local grid.

FUNDING:



GREEN CLIMATE FUND



Cofinance
\$15.6m

Green Climate Fund
\$44.9m

INTRODUCTION

- The Jordan Integrated Landscape Management Initiative (JILMI) aims to combat the adverse effects of climate change in one of the most water scarce and drought-prone countries in the world.
- The project addresses multiple climate impacts, in particular water scarcity in the northern Jordan Valley through an integrated land and water resources management approach, targeting small-scale farming communities in three sites – the Yarmouk, King Talal Dam and Kafraïn watersheds.
- A combination of capacity building, climate-resilient agriculture, ecosystem restoration, and improved water management will directly benefit 246,942 people in the Jordan Valley by reducing their climate vulnerability.
- Approximately 756,000 people across the broader Jordan Valley will benefit indirectly from enhanced water resources, strengthened local governance, reduced water loss, and improved awareness of climate change impacts and adaptation options.

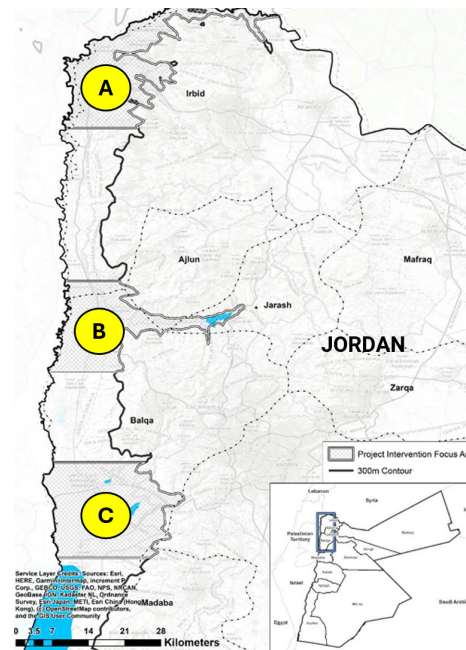
CLIMATE SOLUTIONS

- The proposed ILWRM approach includes: i) **improved ecosystem management** through land restoration, improved agricultural practices and managed aquifer recharge; ii) **rainwater harvesting**; and iv) strengthened governance, with long-term finance through a **Water Fund** for upscaling integrated land and water resource management across the Jordan Valley.
- The project will **restore 12,000 hectares** of forest, rangeland, riparian and wadi ecosystems across the three sites using an ecosystem-based adaptation (EbA) approach.
- Permeable rockfill dams will be built in **wadis** at 12 sites, allowing for **managed aquifer recharge**, with small check dams established in upstream gullies to trap sediment and further **enhance infiltration**. As groundwater is replenished, 10 freshwater springs will be rehabilitated.
- A **Water Fund is being established** to scale up landscape management practices and promote water conservation through a **Payment for Ecosystem Services** model.
- An on-granting facility will be established with a USD 7.5 million budget to support Water Management Committees (WMCs), local communities, and farmers in implementing sub-projects focused on **ecosystem management and climate-resilient ILWRM**. It aims to scale restoration and land management interventions.
- By encouraging upstream communities to adopt practices that improve water quality and quantity, the Water Fund will benefit downstream users, ensuring a continuous supply of water-related ecosystem services and **sustainable funding for ecosystem maintenance** and restoration.

CLIMATE IMPACTS

- Jordan faces extreme water scarcity, exacerbated by its arid climate and high temperatures, which often exceed 40°C in the summer. With only 125 cubic meters per capita per year of available water, Jordan is the fifth most water-stressed country in the world.
- Climate projections indicate worsening conditions, with reduced rainfall and increased evaporation rates leading to extended droughts and a shorter rainy season.
- Staple barley production is expected to decline by up to 50% under future climate conditions, with pressure also on other crops and animal fodder, severely affecting local food supplies.
- Natural ecosystems and agroecosystems in the country are already being degraded by non-climatic drivers such as overgrazing, unregulated fuelwood harvesting, and cultivation on steep slopes, accelerating water run-off and preventing infiltration.

PROJECT LOCATION



The project focuses on three target watersheds of the northern Jordan Valley – A: Yarmouk; B: King Talal Dam; and C: Kafraïn watersheds.

RESOURCES

- [UNEP project page](#)
- [Climate adaptation resources & multimedia](#)
- [Adaptation Gap Report 2024](#)
- [Press release: Jordan paves way for US\\$60 million initiative to adapt to climate change](#)

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The project will train local communities on **new climate-resilient livelihoods** such as vegetable gardening, beekeeping, and water-efficient agricultural practices. Learning exchanges will be promoted between communities.

Private-sector champions, including women, will be supported to mentor farmers to **develop microenterprises** in post-harvest processing, and to access markets and finance.

The project demonstrates the critical co-benefits between nature restoration, adaptation and mitigation, exemplified by the innovative establishment of a

floating solar power system on the King Abdallah Canal, which aims to both reduce water loss from evaporation while simultaneously producing 1MW of renewable energy.

- Water resources will be enhanced through the **installation of 3,000 rooftop rainwater harvesting** tanks on community buildings and homes, with community monitoring and management plans through multi-stakeholder Water Management Committees.

