2025

Resilient Ecosystem, Water and Rangelands Development (REWaRD)

Hashemite Kingdom of Jordan

CONCEPT NOTE PROPOSAL
TO THE ADAPTATION FUND

Official Use Only

Abbreviations and Acronyms

ACC	Agricultural Credit Corporation
AF	Adaptation Fund
ESCMP	Environmental, Social and Climate Management Plan
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organization
FFS	Farmer Field Schools
GEF	Global Environment Facility
GEWE	Gender Equality and Women Empowerment
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GRM	Grievance Redress Mechanism
IFAD	International Fund for Agricultural Development
IUCN	International Union for Conservation of Nature (World Conservation Union)
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MoE	Ministry of Environment
MSMEs	Micro, Small and Medium Enterprises
NARC	National Agricultural Research Center
NDC	Nationally Determined Contributions
NGO	Non-Governmental Organization
PFS	Pastoral Field Schools
PMU	Project Management Unit
PSC	Project Steering Committee
REGEP	Rural Economic Growth and Employment Project
REGEP-UP	Rural Economic Growth and Employment Project - Upgraded/Scale-up
REWaRD	Resilient Ecosystem, Water and Rangelands Development
SDGs	Sustainable Development Goals
SECAP	Social, Environmental and Climate Assessment Procedures
SEP	Stakeholder Engagement Plan
SIGHT	Small Ruminants Investment and Graduating Households in Transition Project
SIGHT-II	Small Ruminants Investment and Graduating Households in Transition Project II
WB	World Bank
WFP	World Food Programme

Table of Contents

List of Tables

List of Figures

CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT INFORMATION

Title of Project:	Resilient Ecosystem, Water and Rangelands Development (REWaRD)
Country:	Hashemite Kingdom of Jordan
Thematic Focal Area:	Climate smart livestock management, water management, rangelands management, ecosystem-based adaptation, food security
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Executing Entities:	Ministry of Agriculture (MOA)
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Letter of Endorsement (LOE) signed:	Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: *https://www.adaptation-fund.org/apply-funding/designated-authorities*

Stage of Submission:

☐ This concept has been submitted before

☒ This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date: Click or tap to enter a date.
Please note that concept note documents should not exceed 50 pages, including annexes.

A. Project Background and Context

A.1. Socioeconomic Landscape

1. **Jordan is a small upper-middle income country with scarce natural resources.** Situated at the heart of the Middle East, and occupying an area of approximately 89,318 km^2, Jordan has a diverse terrain and landscape demonstrating a variety usually found only in large countries. Jordan's climate is characterized by long, hot, and dry summers and short, cool winters. The climate is influenced by the country's location between the aridity of the Arabian Desert and the humidity of the eastern Mediterranean area, with about 75% of the country described as having a desert climate with less than 200 millimeters of rain annually.[1]

2. **The Jordanian economy is small but steady, despite limited natural resources, a high population growth rate, and ongoing regional conflicts.** Jordan, as of 2025, is experiencing an economic landscape characterized by modest growth, persistent structural vulnerabilities, and an ambitious but challenging modernization agenda. The economy recorded an annual GDP growth rate of around 2.8% in Q2 2025, with projections to reach 3% in 2026.[2] This pace of growth, while relatively steady, is notably driven by sectors beyond agriculture, such as financial services, manufacturing, tourism, and remittances—but agriculture remains a critical socio-economic anchor, especially in rural regions. The agricultural sector contributes about 5.1% to national GDP directly,[3] up to more than 17% when agro-food value chains are included.[4] Agriculture also remains the mainstay for around a quarter of Jordan's rural poor, tying it closely to food security, employment, and poverty mitigation strategies.

3. **A series of challenges shape the current economic outlook, posing a challenge to the country's sustainable social and economic development.** Chronic water scarcity, limited arable land, a substantial trade deficit due to dependence on energy and food imports, and persistent unemployment—averaging 21.3% in Q1 2025, with even higher rates among youth and university graduates, and scored the highest in AlMafraq and Ma'an governorates at 23.2%.[5] These structural weaknesses are compounded by inflationary pressures, reduced foreign direct investment, and rising living costs, especially since the COVID-19 pandemic and ongoing regional conflicts have disrupted supply chains and dampened investor confidence.

4. **Jordan's Human Development Index value for 2025 is 0.754** — which puts the country in the High human development category — positioning it at **100 out of 193** countries and territories.[6] [7] The Jordanian population was estimated to be 11,7 million (52.9% males, 47.1% females) in 2024[8]. Rural people represent 9% of the total population. On average, households have 4.8 members, and 15% of households are female-headed.

5. **Poverty rate hover around 16%[9] and tends to be higher in rural areas, while in absolute terms, most poor Jordanians live in the densely populated governorates.** The Department of Statistics reported that 24.1% of Jordanians were living in poverty (DOS 2022). The World Bank further estimated that 35% of the population falls below the poverty line.[10] The rise in poverty has been linked to low employment levels, stagnant income growth, and increasing living and production costs. More than 20% of the population in Zarqa (24%), Mafraq (58%), Jarash (27%), Karak (23%), Ma'an (25%), and Aqaba (26%) falls in the lowest wealth quintile. Rural communities —where agriculture, pastoralism, and small-scale commerce dominate—continue to experience higher rates of poverty, unemployment, and underdevelopment.

1 Jordan. Biennial update report (BUR). BUR 2, 2021.
2 Central Bank of Jordan.
3 Country official statistics, National Statistical Organizations and/or Central Banks; National Accounts data files, Organisation for Economic Co-operation and Development (OECD); Staff estimates, World Bank (WB)
4 Department of Statistics/ Internal Trade Survey 2023.
5 Department of Statistics.
6 Jordan | Data Futures Exchange
7 Human Development Index (HDI) by Country 2025
8 Jordan | Data Futures Exchange
9 World Bank, Poverty and Inequality Platform. Data are compiled from official government sources or are computed by World Bank staff using national (i.e. country–specific) poverty lines. World Bank (WB)
10 Using the $7.9 daily poverty threshold

6. **Unemployment rate reached 21.4% in 2024** (18.2% males vs 32.9% females), indicating a decrease of 0.6 percentage points from 22.0% in 2023. At the governorate level, the highest unemployment rate was recorded in AlMafraq and Ma'an governorates at 23.2%. Women's labor-force participation remains among the lowest globally, at approximately 15%, reflecting socio-cultural norms, limited access to capital and land, informality, and inadequate policy support for work-life balance and childcare. Women are, however, heavily involved in home-based or subsistence agriculture, livestock rearing, and informal wage labor in rural communities.
7. **The small ruminant sector is crucial for rural livelihoods**, especially among the poorest smallholder farmers, however, smallholders face major constraints in feed, water, animal health, and market access. Their challenges include severe impacts of climate change on their livelihoods, fodder and water shortages, rising feed costs, weak access to markets, and limited public or private extension services.
8. **The Increased impacts of climate change on health are becoming tangible**, associated with the increased frequency and intensity of extreme weather events such as heat waves, and diminishing water availability and deteriorating water quality exacerbating livelihoods and health issues:
    - **a.** Increase in health problems due to heat wave, waterborne diseases, food insecurity, air pollution.
    - **b.** Non-Communicable Diseases (NDCs) such as respiratory illnesses and cardiovascular conditions[11]
    - **c.** These impacts are significantly affecting grazing, water resources, and human health.
    - **d.** Incidents of water borne diseases and respiratory illnesses are increasing with changing temperatures, water quality decline, increased pollution and drought.
    - **e.** Reduced water availability and access (for households, agriculture, and industrial use) and reduced water quality.
    - **f.** Agriculture: the reduced rainfall and water availability threatens food production, disrupts seasonal crops because of changing weather patterns and rainfall seasons, increased arable land and soil degradation.
    - **g.** Scarcity of natural resources, land degradation, aridity and ecosystem changes, extinction of indigenous plants, animals, animal diseases, and reduced access to pasturelands for grazing livestock which severely affect the main sources of nutrition and households' income.
    - **h.** Biodiversity and change in ecosystems affect the population and in particularly farmers due to the increased prices for water and energy which affects affordability. Coping mechanisms to such sever challenges may include negative social actions such as child labour, children drop out of education, and child marriage

9. Initial Gender Assessment:

Gender Equality: Jordan ranked 122 out of 148 countries in the Global Gender Gap Report for 2025.[12] Education attainment and political empowerment show better ranks compared to Economic Participation and Opportunity, Health and Survival domains. Despite the country's significant progress in closing the gender gap in education, gender disparities persist in political participation and Economic Participation and Opportunity.

Gender, Employment, and Economic Activities: The World Bank indicates that Jordan's women labor-force participation is one of the lowest in the world.[12] Women carry the burden of unpaid farm and/or care work and are accordingly having to address the multiple challenges emerging from scare and relatively expensive resources. Rural women heads of household are also overwhelmingly involved in agricultural production. The incidence of women's headships in the country is higher than 20%, up to 25 in certain areas. They are more vulnerable to poverty as the loss of the male breadwinner can cause profound socio-economic distress.

[11] International Bank for Reconstruction and Development, International Finance Corporation, Multilateral Investment Guarantee Agency Country Partnership Framework
[12] Global Gender Gap Report 2025, World Economic Forum

Home-based food processing plays as a women dominated role in the value chain and the most common type of agricultural activity undertaken by women in rural areas. Women and girls play a vital role in the dairy sub-sector. It is considered an important livelihood source for poor women specially women heads of households. Women and girls commonly turn sheep/goat milk into jameed, labneh, white cheeses, and clarified butter (samneh) for home use and sale. Traditionally, they share the responsibility for animal care and milking tasks, home-based dairy processing. In modern factories, women play an important role in the manual packaging of products like labneh and cheese and are dominant in laboratory and quality control work. [18] Most of their work in the sector remains informal. This explains the extremely low official statistics on women economic participation in the sector (0.9%). Women as labourer are either unpaid in family business, informal business, or underreported where they often face unsafe working conditions and lower pay.

Women small-scale producers face major challenges that hinder their business growth such as: limited financial resources for purchasing dairy processing machinery and renting labs, access to markets for trading with a fair market price and diversifying their markets, which limits their end market to family and friends, and causes them to operate informally and remain in the same income bracket. Legal and licensing constraints limit formalization and scaling for many women-run dairy businesses due to relatively high cost of registration and annual fee, limited business capacity and skills, in addition to the challenge in obtaining food safety certificate which is a condition for selling their products in permanent bazars. Access to credit is also a major challenge due to limited collateral to receive loans. Some women also are hesitant to take loans either for religious reasons or fear or financial risks and inability to repay.

Gender and cultural norms: According to UN-Women (2018) women's involvement in small or medium scale agricultural production initiatives, such as through local community associations and cooperatives is low, which could be related to their low public representation and participation in associations and the prevailing social norms. Violence against women and girls is a significant issue in Jordan and affects all segments of society regardless of their social or economic status. The most common forms of GBV in Jordan include physical violence, sexual violence, emotional abuse, and sexual harassment. The Jordan Population and Family Health Survey (DHS) 2017-2018 reveals that 29.5% of ever-married women aged 15-49 reported experiencing physical, sexual, or emotional violence by their husband or partner at some point in their lives. Women in the lowest wealth quintile (21%) are three times as likely to have experienced spousal violence as those in the highest wealth quintile (7%).[15].

Gender legislative framework: Jordan recognizes the importance and the value of integrating a gender perspective in climate change action. It is the first country in the region to integrate a gender equality perspective in its National Climate Change Policy. The Jordan National Climate Change Policy (2013-2030)1 (JNCCP), the National Adaptation Plan (NAP) and the Third National Communication report (TNC) all pledged to address gender inequalities through mainstreaming a gender perspective in relevant climate change adaptation and mitigation policies, strategies and action.

Since 1992, Jordan has advanced women's empowerment through national strategies and institutions such as the Jordanian National Committee for Women's Affairs serving as the national machineries concerned with the empowerment and advancement of women and the National Strategy for Women (2020–2025) which promotes women's rights and empowerment. The strategic priorities are aligned with constitutional principles, national plans, and global commitments such as the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Beijing Platform for Action (BPfA), the Sustainable Development Goals (SDGs) Agenda 2030.

Recent frameworks, such as the Economic Modernization Vision (2023–2040) and the Youth and Women Empowerment Strategy in the Water Sector (2025–2028), integrate gender priorities, focusing on women's employment, care economy support, skills development, and leadership in sustainable resource management.

The government has also introduced policy and legislative measures against gender-based violence, including a national plan on child marriage and the 2021–2023 Executive Plan on National Priorities for strengthening the response to Gender-Based Violence, Domestic Violence, and Child Protection.

Jordan strengthened protections for agricultural workers through the 2021 Agricultural Workers Bylaw, which ensures regulated working conditions and introduces specific provisions for women, such as maternity leave and overtime rights.

The Jordan's Economic Modernization Vision (2023–2040) include important gender provisions and emphasizes job creation for women and support to the care economy as critical pillars. Moreover, the recently approved Youth and Women empowerment strategy in the water sector (2025-2028) aims to build leadership through education, innovation, and active participation in sustainable water management. It emphasizes skill development, involvement in community and policy-making processes, and integration with national strategies.

Gender and women vulnerability to climate change: Women experience stresses from the impacts of climate change on their health, economic activities, livelihoods, and household members wellbeing. They are pressured to adapt quickly to the shortages of resources. Their knowledge, experience, capacities, and interaction with the surrounding environment largely affect their coping mechanism and resilience. It was observed that women can recognize more wild herbs than men and are more sensitive to the environment around them.[13] Desk review and consultations with different stakeholders including rural women summarize the key women vulnerabilities to climate change as:

- Reduced agricultural productivity and increased women's unpaid labor burden for water collection and household management.
- Rural women, who are heavily involved in agriculture, face heightened risks of income loss and food insecurity
- Water: Women's health would be at risk with increased workload (at both farm and household levels) responsibilities will increase especially with water and energy scarcity.
- Unbalanced workload and increased time spent by women on managing the scarce water resources and improving the quality of water (through boiling, etc.) increases with the climate shocks.
- Increased stress from identifying food sources to provide nourishing diets and avoid malnutrition.
- Multiplied labour effort, to provide and generate income and or reduce spending through home gardening, livestock rearing and food processing.
- Girls are more vulnerable to the risks of school dropout, child labour, extra care responsibilities and early marriage as some families tend to these practices as coping mechanisms with deteriorated livelihoods conditions.
- Female headed household food security are further threatened as their poverty levels increase.

10. **Youth**:

Jordan has one of the youngest populations globally, with half aged 15–39. Despite being educated and globally connected, youth—especially women and those in rural areas—face high unemployment (36.6% overall, with 44% of young women being NEETs in 2019). The private sector has struggled to create enough jobs, and structural barriers like limited access to land, finance, and markets hinder youth entrepreneurship. Many young people work in the informal sector, often in jobs that don't match their qualifications and offer no security. In rural areas, youth involvement in livestock and small ruminant farming is mostly part-time or seasonal, constrained by climate change, high input costs, and limited access to veterinary and financial services.

Structural barriers to youth entrepreneurship such as limited access to land, markets, and finance limit youth from fulfilling their future potentials. Few rural youths have chosen to create new enterprises as a means of employment. This is mostly due to the economic challenges they face, in addition to the global phenomena of out-migration either to urban areas or abroad. The economic situation, challenges that hinder youth start-ups, and the gap between the supply and demand in the job markets, and the influence of the informal economy, have a critical impact on the youth. In the absence of decent jobs, a significant share of youth is employed in the informal sector. Young jobseekers often accept informal jobs that do not match their qualification, provide low income and no job security or benefits, which delays their path to achieve their personal and economic growth (OECD 2021).

Majority of youth involved in the livestock and small ruminant value chain are either temporary, seasonal, and/or as a part time aside from another full-time job. They work in family-owned farm, support with daily flock or daily processing related tasks. Unless they have this business for generations, youth are hesitant to fully work in small ruminant farming/ breeding due to the climate change impacts and challenges reflected in the high cost of feed, water, limited accessibility of veterinary, vaccination, and laboratory services. These challenges are compounded with limited access to finance due to insufficient collaterals, high interest rates, and repayment conditions where are risky due to the climate change impacts which affect the anticipated production.

[13] Gender Equality and Climate Change in Jordan, Explanatory Gender Analysis, October 2021, Ministry of Environment and the United Nations Development Programme

A.2. Development context

11. **Jordan stands at a critical juncture in its development journey, grappling with economic challenges while striving to build resilience and sustainability.** The "Jordan 2025: A National Vision and Strategy" serves as the country's flagship development roadmap, focusing on three main pillars: economic development, social development, and environmental sustainability. The strategy was launched to address various challenges and to capitalize on opportunities for growth and improvement across different sectors. The Economic Modernization Vision (2022–2033) and its subsequent action plans (such as the Government Executive Program 2023–2025) prioritize digital transformation, private-sector development, green growth, and job creation, especially for youth and women. These frameworks emphasize among other the need for investments in key sectors including smart agriculture and the adoption of integrated approached to enhance food, water, and energy security for Jordan.

12. **As Jordan seeks to advance its development goals, integrating climate resilience into its strategic planning has become an urgent priority.** The 2020-2025 National Agricultural Development Strategy set priorities to (i) preserve environment and agricultural resources, (ii) enhance self-reliance in food production, (iii) effectively contribute to economic development, and (iv) meet the requirements of internal and external markets. The Strategy gave special consideration to expanding women's and youth participation, supporting rural livelihoods for refugees and host communities, and mainstreaming climate resilience in all agricultural interventions. The Green Growth National Action Plan (2021–2025) further embeds sustainable agriculture as a pillar of Jordan's green economy transition—promoting resource efficiency, reduced emissions, biodiversity protection, and social inclusion.

13. Despite strong frameworks for agricultural development, coordination between ministries and agencies has been inconsistent, leading to delays in rolling out of activities, technologies, as well as limited climate mainstreaming into agricultural planning.

A.3. Small-ruminants, rangelands, and herders

14. **Jordan's agriculture and small ruminant sectors are operating at the intersection of acute environmental stress, rapid social change, and the imperative for economic modernization.** Chronic water scarcity, land degradation, and intensifying climate change impacts threaten traditional livelihoods and food security—particularly in the country's marginalized, arid regions as reduction in carrying capacity and rangelands yield have been documented. Vegetation changes are more likely to be linked to changes in soil resources than to immediate physiological responses of plants to CO_2 concentration or temperature. The increase in evapotranspiration rate and decrease in precipitation reduce productivity in drier systems such as the arid and semiarid rangelands of Jordan.

15. **While challenged by productivity and profitability constraints, small ruminant production is a cornerstone of the agricultural sector and remains central to rural welfare and communities' adaptive capacity.**[14] Despite their importance, knowledge regarding specific small ruminant production systems in Jordan remains limited, even more so as variability in practices and socio-economic conditions affecting small ruminant farmers is characteristic: the examination of these production systems in the Northern Jordan for example did not reveal uniformity in terms of structural, cultural, technical and economic aspects through the use of descriptive statistics. The typological analysis identified five distinct groups with unique management strategies ranging from labor management-oriented to market-driven and extensive sheep farming-focused, highlighting the importance of tailoring interventions and support mechanisms to enhance the sustainability, profitability and overall efficiency of small ruminant farming.[15]

14 Jordanian Ministry of Agriculture. (2022). Unpublished Statistic. Jordan.

15 Awad Rula, Jaouad Mohamed, Mohamed-Brahmi Aziza, Titi Hosam, Gasmi-Boubaker Aziza (2025). Patterns and Relations in Small Ruminant Systems in Northern Jordan. Indian Journal of Animal Research. 59(1): 149-155. doi: 10.18805/IJAR.BF-1841.

16. **Sheep and goats contribute significantly to meat and dairy production alongside cattle.** They represent 49% of meat and 51% of dairy production.[16] This diversity strengthens the sustainability of the country's agriculture. Mafraq leads Jordan in sheep herds (37.4%), followed by Amman, but ranks fourth in goat metrics (Table 1).

Table 1. Livestock census and production in the Jordanian governorates.

Animals	Province	Number of Heads	Percentage	Meat Production (Tons)	Dairy Production (Tons)
Sheep	Irbid	265,100	6.30%	16,576.30	825,500
	Jerash	16,800	0.40%	672	84,000
	Ajloun	16,800	0.40%	672	84,000
	Mafraq	1,548,700	37.40%	582,342	7,743,500
	Amman	865,000	20.80%	179,040	4,425,000
	Ma'an	231,000	5.50%	12,655	632,500
	Zarqa	367,200	8.80%	32,505.60	1,625,000
	Balqa	183,600	4.40%	8,154.40	409,000
	Karak	316,800	7.60%	24,028.80	1,204,000
	Ma'an	220,500	5.30%	11,726.50	586,250
	Tafilah	108,000	2.60%	2,808	140,400
	Aqaba	21,000	0.50%	105	5,250
	Total	**4,200,500**	**100%**	**833,796.80**	**21,134,400**
Goats	Irbid	132,685	11.20%	14,873.50	663,425
	Jerash	32,578	2.80%	917.34	162,890
	Ajloun	26,523	2.30%	611.54	309,360
	Mafraq	22,461	1.90%	424.	112,305
	Amman	21,345	1.80%	384.21	106,725
	Ma'an	19,234	1.60%	307.74	96,170
	Zarqa	16,892	1.40%	239.47	84,460
	Balqa	15,567	1.30%	201.97	77,835
	Karak	15,234	1.30%	197.99	77,055
	Tafilah	14,987	1.30%	194.83	76,415
	Aqaba	14,742	1.30%	191.58	76,030
	Total	**1,198,408**	**100%**	**125,709.11**	**6,244,710**

Source: Sustainable Sheep and Goat Farming in Arid Regions of Jordan", 2024.[17]

17. **Smallholding remains predominant, with family labor critical; hired labor is more common in larger, semi-intensive operations or for commercial herding.** While women constitute a minority of landowners and a small fraction of formal wage earners, their de *facto* contribution to agricultural and livestock production is extensive: in household gardens, small livestock, post-harvest work, and informal wage labor. Women are primarily engaged in home-based agriculture (over two-thirds), with the rest involved in paid labor, often under informal or precarious conditions. Land and asset ownership is low (less than 10% reported), constraining access to finance and limiting decision power. Barriers include limited access to extension and finance, lack of control over land/assets, cultural constraints, informality, and inadequate social protection.

18. **Climate change, reduced rainfall, and population growth have intensified pressures on natural resources.** Expanding desert conditions threaten agriculture and rural livelihoods. Jordan's soils reflect climatic and geomorphological diversity but are beset by degradation and erosion. Overgrazing, unsustainable cropping, removal of vegetative cover, monocropping, and inappropriate water management are key local drivers particularly in the Badia region which constitutes over 80% of the national territory.

16 Al-Barakeh, Faisal, Ashraf Omar Khashroum, Radi A. Tarawneh, Fatima A. Al-Lataifeh, Azzam N. Al-Yacoub, Moammar Dayoub, and Khaled Al-Najjar. 2024. "Sustainable Sheep and Goat Farming in Arid Regions of Jordan" *Ruminants* 4, no. 2: 241-255. https://doi.org/10.3390/ruminants4020017

17 Al-Barakeh, Faisal, Ashraf Omar Khashroum, Radi A. Tarawneh, Fatima A. Al-Lataifeh, Azzam N. Al-Yacoub, Moammar Dayoub, and Khaled Al-Najjar. 2024. "Sustainable Sheep and Goat Farming in Arid Regions of Jordan" *Ruminants* 4, no. 2: 241-255. https://doi.org/10.3390/ruminants4020017

A.4.Projections, climate vulnerabilities, and adaptation needs

19. **Climate change poses a great threat to Jordan's long-term stability and prosperity.** The country's arid climate, scarce water resources, and dependence on imports make it particularly vulnerable to rising temperatures, erratic rainfall, and extreme weather events. The country ranked 74 out of 187 countries in the ND-GAIN index[18] for 2023. It is the 138th most vulnerable country, driven by high sub-scores on freshwater withdrawal, urban concentration, and energy import dependency. Since the 1960s, annual maximum temperatures have increased by 0.3–1.8°C, and minimum temperatures have risen by 0.4–2.8°C across climate regions. The annual precipitation has declined by 5–20%, depending on the region.[19] As reflected in Table 2, future climate modeling shows (a) further decreases in total precipitation; (b) increasing variability in the location, timing, and quantity of rainfall; (c) warmer average temperatures of up to 2.9 °C by 2050; (d) increased drought occurrence, length, and severity; and (e) more frequent extreme events.[20] Figure 1 and Figure 2 reflects the high variability of projected averages of maximum average temperatures and precipitations for Jordan, respectively.

Table 2. Climate change impacts under different scenarios

Parameters	RCP2.6		RCP4.5		RCP8.5	
	2050	2100	2050	2100	2050	2100
Temperature	+1.7°C	+1.7°C	+1.2 to 1.5°C	+1.5 to 2.1°C	+1.7 to 2.9°C	+3.2 to 5.9°C
Precipitation	NA	NA	-4 to -15%	-7 to -25%	-7%--15%	-13%--22%
Drought	+5 days	+5 days	NA	+30 to 40 days	NA	+>40 days
Floods	No significant change	No significant change	No significant change	No significant change	+4 days with precipitation >20mm	+8 days with precipitation >20mm
Heat Waves	45 days per year	45 days per year	NA	NA	75 days per year	200 days per year

Source: Water in the Balance: The Economic Impacts of Climate Change and Water Scarcity in the Middle East. WB, 2020

Figure 1. Projected average maximum surface air temperature (°C), Multi-Model Ensemble, Ref. period: 1995-2014

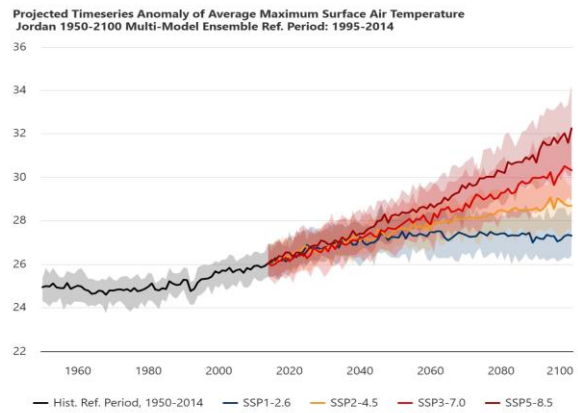
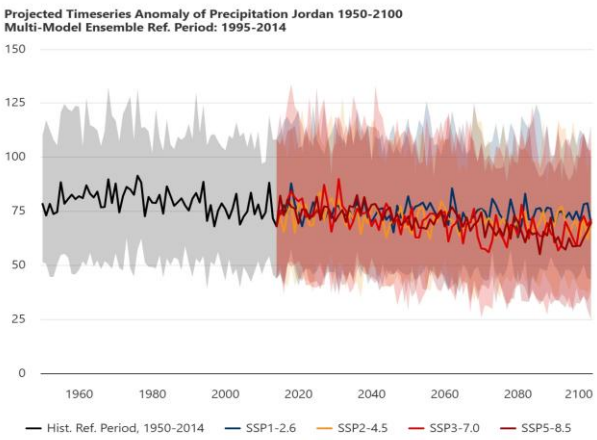


Figure 2. Projected precipitation (mm), Multi-Model Ensemble, Ref. Period: 1995-2014



Source: WB, Climate Change Knowledge Portal, 2023, https://climateknowledgeportal.worldbank.org/, accessed 21 Oct 2025.

18 The ND-GAIN Country Index summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience

19 Harris et al., "Updated High-Resolution Grids of Monthly Climatic Observations – the CRU TS3.10 Dataset," International Journal of Climatology 34, no. 3 (2014): 623–42, https://doi.org/10.1002/joc.3711

20 United Nations Economic and Social Commission for Western Asia (ESCWA) et al., "Arab Climate Change Assessment Report – Main Report" (Beirut: United Nations Publication E/ESCWA/SDPD/2017/RICCAR/Report, 2017), https://www.unescwa.org/sites/www.unescwa.org/files/publications/ files/riccar-main-report-2017-english_0.pdf

20. **The agriculture sector is considered the most climate-sensitive of all economic sectors.** The main climate related hazards temperature increase, rainfall decrease and the shift in rainy season and seasonal alterations, heatwaves and extreme events especially the heavy rainfall and droughts. Crop models predict a shortening of growing seasons, earlier ripening of cereals, and reduced yields in key crops and forage, challenging both crop and livestock systems. Heat stress is also expected to impact labour productivity in the sector. In addition, it will lead to a decline in land fertility and surface for agriculture and cattle. Furthermore, the effects of these challenges are often interconnected and cyclical. For instance, drought prompts increased groundwater extraction, accelerating aquifer depletion; degraded land offers less forage, amplifying overgrazing and animal health issues; and each stress undermines the resilience of vulnerable communities. Table 3 presents key climate change impacts on the sector.

21. **Small ruminants retain certain resilience traits in the face of harsh conditions but are increasingly pushed beyond their coping ranges**. Local breeds are heat tolerant, capable of efficient conversion of scarce forage to meat/milk, and able to utilize marginal and browse-based diets. Nevertheless, the sector faces persistent challenges, including limited fodder and water availability, especially in dry seasons; rising feed costs, degraded rangelands due to overgrazing, population pressure, and land conversion, high production costs and low profitability, squeezing margins for smallholders, and more. Market access is also a challenge, including volatility of meat/fiber prices and limited cold chain infrastructure.

Table 3. Key Climate Change Challenges and Effects on Agriculture and Small Ruminants

Climate Challenge	Agriculture	Small Ruminants	Potential adaptation measures
Water Scarcity	Decreased crop yields; shift to less water-intensive crops; increased irrigation costs	Increased distance/time/cost for water provision; lower productivity, animal stress.	Investing in on- and off-farm water harvesting, improve watering infrastructure (ponds, tanks) and grazing infrastructure, and systematic water quality monitoring.
Land Degradation	Loss of arable and grazing land; declining soil fertility	Loss of rangeland carrying capacity; overgrazing; feed shortages	Restore rangelands through community grazing plans and native shrub replanting; reduce herd/flock sizes to match carrying capacity.
Heatwaves & Temperature Rise	Reduced crop duration; earlier maturation; heat stress on sensitive crops	Heat stress impacts fertility, growth, and mortality; increased disease risk	Select resilient local breeds (Awassi, Baladi) and use crossbreeding for specific production/health traits without sacrificing adaptation; prioritize ram selection using performance and breeding indices.
Drought	Crop failures in rainfed systems; yield instability	Reduced rangelands biomass, supplemental feed needed; increased mortality, especially in young/weak animals	Expand crop-livestock integration, use of crop residues, native shrubs, and fodder reserves; promote supplementary feeding in drought; experiment with drought-tolerant forage.
Extreme Rain/Flash Floods	Destruction of crops, infrastructure; soil erosion	Sudden loss of forage, loss of animals to floods, disease outbreaks	Provide targeted grants for asset restoration post-disaster.
Disease and Pest Outbreaks	New/expanded range of pests and diseases	Higher prevalence of heat, vector-borne, NDCs and waterborne diseases	Strengthen access to affordable animal health services and early warning systems for disease outbreaks; expand extension for preventive care.

Climate Challenge	Agriculture	Small Ruminants	Potential adaptation measures
Socio-Economic Impacts	Income volatility, loss of farm/agribusiness employment	Livelihood insecurity, particularly for women, youth, and refugees. Increased prices for water and energy which affects affordability. Coping mechanisms to sever impacts may include negative social actions such as child labor, school dropout, and child marriage	Technology, extension, and women/youth empowerment represent cross-cutting enablers. Promote digital apps, participatory breeder selection and rangelands management, gender-responsive training, and rural entrepreneurship platforms.

22. **Resilience of agriculture and small ruminants' sectors is built on targeted policies, investment in climate-smart and water-efficient technologies, institutional reforms, and a growing appreciation of the role of the community, including women and youth.** Rangeland restoration and water harvesting address climate vulnerabilities, targeted financial products and grants empower women and youth as value chain actors and improves livelihoods, and informed planning and policy making builds a long-term foundation to climate resilience and sustainable development and poverty alleviation.
23. **The Resilient Ecosystem, Water and Rangeland Development (REWaRD) project will help identify vulnerabilities and strengthen adaptive strategies of herders.** By doing so, it will support broader national goals of sustainable development and poverty reduction. This effort will require a multi-stakeholder approach, integrating scientific research, policy innovation, and community engagement to ensure that livestock systems can withstand and thrive amid evolving climate realities.

B. Project Objectives

24. The **overall goal** of REWaRD is to contribute to increased climate resilience of rural smallholders engaged in the small-ruminant value chains in Jordan. In line with AF's priorities, the project contributes to climate smart livestock management, water management, rangelands management, ecosystem-based adaptation, and food security.
25. The **Project Development Objective (PDO)** is to support climate resilience of small ruminants' food systems through improved access to rangelands, fodder, feed, and water, and diversification of livelihoods of climate vulnerable households.
26. **Target Group:** The project targets smallholders in all governorates but will prioritize most climate vulnerable districts in the South of Jordan for water access and livelihoods diversification and income generating activities.
27. Achievement of the PDO relies on three interlinked **outcomes**, aligned with the Adaptation Fund outcomes (Table 4) and with the project Theory of Change (Figure 3):
    (i) Increased ecosystem resilience for the small ruminants' sector
    (ii) Diversified and strengthened livelihoods and sources of income for the most vulnerable groups in the livestock value chain
    (iii) Strengthened policy and institutional capacity for climate adaptation

Considering the country's high vulnerability to climate change and water scarcity, building a resilient small-ruminant sector will require strengthening both the *infrastructural adaptive capacity* - e.g. sustainable feed and water solutions (Outcome 1), and the *policy and institutional one* – e.g. field-level evidence and inclusive policy dialogues to foster reforms in feed strategies and others (Outcome 3); as well as *diversifying livelihoods* - e.g. supporting vulnerable groups (women, youth and poor producers) in livestock value chains with tailored financial products, business training, and value addition opportunities, enabling them to scale their enterprises, boost income, and create jobs (Outcome 2).

Table 4. Project Proposed Outcomes & the Corresponding Adaptation Fund Outcomes

Proposed Project Outcomes	Corresponding AF Outcomes
Outcome 1: Increased ecosystem resilience for the small ruminants' sector, through rangeland restoration and management, piloting and upscaling of drought and heat-resistant fodder and feed, and rainwater harvesting.	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress
Outcome 2: Diversified and strengthened livelihoods and sources of income for the most vulnerable groups in the livestock value chain, through capacity building and supporting income generating activities to vulnerable groups, as well as establishing a revolving fund providing reimbursable grants to them.	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas
Outcome 3: Strengthened policy and institutional capacity for climate adaptation, by generating knowledge products for inclusive and evidence-based policy dialogue (in rangeland management, alternative feed, and development of the small ruminants' sector at large).	Outcome 7: Improved policies and regulations that promote and enforce resilience measures

28. The project is structured around three **components**:

C1. Strengthening climate resilience of small ruminants' food systems

C2. Enabling vulnerable groups to income diversification for climate change adaptation

C3. Supporting climate policy and project coordination

29. **Theory of Change**:

Jordan's small ruminants' sub-sector faces low productivity, weak institutional support and growing vulnerability to climate change, particularly affecting poor rural households, women, and youth. The lack of integrated, climate-resilient systems hampers the sector's contribution to rural livelihoods and national food security. REWaRD aims to contribute to increased climate resilience of rural smallholders engaged in the small-ruminants' value chains by improving access to rangelands, fodder, feed and water, and by diversifying livelihoods of climate vulnerable households.

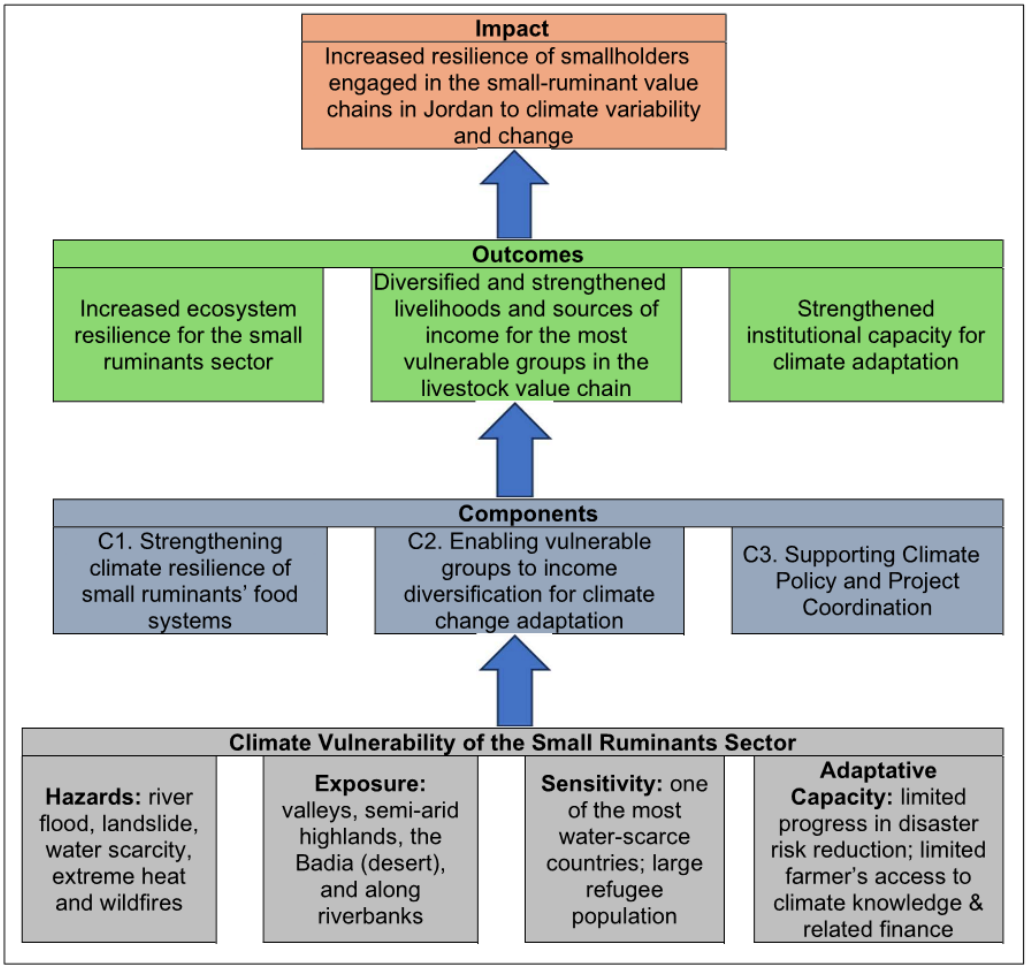
If rural small ruminants' producers gain access to sustainable feed solutions and water supply, **then** they will enhance climate resilience, productivity and profitability, contributing to more sustainable, low-emission livestock value chains.

Furthermore, **if** tailored financial products and services, including matching grants and reimbursable grants, are made accessible to the most vulnerable groups (women, youth, poor producers) in livestock value chains (milk, meat, wool, livestock services), and are accompanied by adapted training, **then** these groups will be better equipped to diversify their livelihoods through launching and growing viable microenterprises, generating income, employment, and broader economic inclusion.

In parallel, **if** inclusive and evidence-based policy support is provided to improve community-based rangelands management, and alternative feed systems, **then** the institutional and regulatory environment will be better equipped to support climate-resilient and inclusive livestock development at scale. Over and above that, **if** national and local governments are supported to strengthen inclusive policy frameworks for the small ruminants' sector, **and if** coordination among public, private, and civil society actors is facilitated, **then** the enabling environment for inclusive, climate-resilient livestock development will improve.

As a result, rural households will strengthen their climate adaptive capacities, increase households' incomes, and improve nutritional outcomes and food security. At the same time, empowered women, youth and institutional actors will help drive the sustainable transformation of small ruminant agri-food systems, contributing to national development goals of poverty reduction, gender equality, food security, and climate resilience.

Figure 3. Preliminary Theory of Change for the Proposed REWaRD Project



C. Project Components and Financing

Project Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. Strengthening climate resilience of small ruminants' food systems		Increased ecosystem resilience for the small ruminants' sector	**3,443,772**
	1.1. Rangelands restoration and management		**1,828,219**
	1.2. Climate resilient fodder and feed production		**655,643**
	1.3. Rainwater harvesting and conservation		**959,910**
2.Enabling vulnerable groups to income diversification for climate change adaptation		Diversified and strengthened livelihoods and sources of income for the most vulnerable groups in the livestock value chain	**4,603,729**
	2.1. Capacity building to vulnerable groups		**305,454**
	2.2. Supporting income generating activities to vulnerable groups		**3,298,286**
	2.3. Establishment of a revolving fund providing reimbursable grants to vulnerable groups		**999,989**
3. Supporting Climate Policy		Strengthened policy and institutional capacity for climate adaptation	**316,713**
	3.1 Policy support and knowledge generation		**316,713**
4. Project Execution Cost			**850,862**
5. Total Project/Programme Cost			**9,215,076**
6. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			**783,280**
Amount of Financing Requested			**9,998,356**

D. Projected Calendar

Milestones	Expected Dates
Start of Project Implementation	01 September 2027
Mid-term Review (if planned)	September 2029
Project Closing	31 August 2031
Terminal Evaluation	May 2032

PART II: PROJECT JUSTIFICATION

A. Project components

30. ***Component 1: Strengthening climate resilience of small ruminants' food systems*** aims at reducing vulnerability to climate change of most vulnerable small ruminants' smallholder producers, and in particular the recurrent water and feed deficit exacerbated by climate change. REWaRD will support more durable and climate resilient access to feed and water resources, by supporting rangeland restoration and management, climate resilient fodder and feed production, and rainwater harvesting and conservation.

31. **Output 1.1. Rangeland restoration and management:** REWaRD will support restoration of degraded rangelands and support community-based rangeland management, including monitoring and learning, following both a scientific and inclusive approach.

Background. The Rangeland Strategy for Jordan 2023-2030 refers to the degradation of rangelands of Jordan for the last two decades due to multiple anthropogenic and natural factors, highlighting the need for sustainable solutions, particularly that at present Jordan cannot provide animal feed for more than 3 months during the good rainy seasons and less than one month or none during the drought years – which, according to climate projection scenarios, are expected every 5 years.

Description of Activities. An assessment study will be undertaken to identify and select, using a participatory approach, ten priority degraded rangeland sites (of about 150 ha each) in the targeted four governorates (Mafraq, Tafilah, Ma'an and Karak), and develop the most suitable restoration and management plan for each. These four Governorates are prioritized because of the importance of their small ruminant population, and vulnerability to drought and climate change. The assessment study and related plan will address both technical aspects (water conservation techniques, seed types, fencing and other infrastructural works, grazing schedule, etc.) and governance aspects (land tenure and access, especially by vulnerable groups, management modalities, roles and responsibilities, enforcement mechanisms and conflict resolution procedures, etc.). Restoration works will follow on each of the 10 selected sites, coupled with monitoring and learning involving the local community, and using a phased approach (starting with 4 sites in year 2 (i.e. right after completing the study), then 4 sites in year 3 and finally 2 sites in year 4, which would allow on the ground learning, assessment and improvement. This activity can draw on experience from a pilot initiative by IUCN and the MoA for rangeland restoration through the Hima system within the Zarqa River Basin in Jordan, which led to a 5 to 6-fold increase in the rangeland productivity (as per the below table).

Table 5. Rangeland productivity across different land management scenarios

Rangeland productivity and barley equivalent value per ha from open-access/baseline regime and through Hima restoration (r = 5%)

System	1. Total predicted Barley Equivalent biomass grazed over 25 years	2. Total predicted barley equivalent biomass grazed per year in steady state	3. Total barley equivalent present value of grazing over 25 years	4. Present economic value of forage from HIMA restoration	5. Present value of forage from HIMA restoration over 25 years	6. Total animal units allowable in steady state	7. Present welfare economic value of natural forage from Hima restoration*	8.Present welfare economic value of natural forage from Hima restoration* over 25 years
a. In an open access regime	0.3 ton/ha		55.1 JOD/ ha					
b. In a Hima system with 25% open access	1.4 ton/ha	67 kg/ha	209.5 JOD/ha	155.5 JOD/ ha	**16.8 million JOD**		193.2 JOD/ ha	21.1 million JOD
c. In a strict Hima system	1.9 ton/ha	89 kg/ha	274.1 JOD/ha	219.1 JOD/ ha	**23.9 million JOD**	18 023	274.3 JOD ha	29.9 millionJOD

*Including a price of 61.8 JOD/ton forage price premium on natural forage derived from the choice experiment outlined in this chapter.

Source: ELD (The Economics of Land Degradation). 2015. An Economic Valuation of Large-Scale Rangeland Restoration Project Through the Hima System in Jordan

Climate Benefits. By restoring degraded rangelands and enhancing their management, small herders will have access to more sustainable feed solutions, thus increasing their resilience to climate change, Moreover, the proposed intervention will enhance groundwater recharge, which is particularly important for water scarce countries like Jordan. It will also contribute to increased sequestration of soil organic carbon, given the important role rangelands play in global carbon cycles.

32. **Output 1.2. Climate resilient fodder and feed production:** To reduce feed and fodder deficit, exacerbated by climate change, and improve feed quality, novel feed and fodder technologies (household level hydroponic fodder production units, small-scale silage making systems, and recycling of crops and agro-industrial residues…) will be researched, piloted and disseminated.

    Background. The structural feed and fodder deficit, exacerbated by climate change, calls for innovations and alternative solutions. Hydroponic has been successfully piloted by IFAD in similar environment at household level, with simple and basic equipment.

    Description of Activities. The project will support a phased approach including: (i) applied research to develop/introduce and test alternative feed and fodder solutions; (ii) piloting in real conditions of the solutions successfully tested; and (iii) dissemination of technologies and fodder species, through FFS for the technologies, and direct distribution to farmers for seeds of drought resistant fodder varieties. Piloting of alternative feed technologies will include inter alia, household level hydroponic fodder production units, small-scale silage making systems, and recycling of crops and agro-industrial residues. As a result, 200 households will be equipped with pilot hydroponic fodder units; 12 service providers equipped with pilot fodder conservation or processing equipment; and 2,000 households receiving seeds (or seedlings) of drought and heat-resistant fodder.

    Climate Benefits. Main climate benefits will include higher resilience to drought due to better availability of alternative feed, and reduced emission intensities due to higher digestibility of feed and higher productivity.

33. **Output 1.3. Rainwater harvesting and conservation:** To address water scarcity, rainwater harvesting will be promoted in drought prone areas, especially in Southern Governorates.

    Background. Water scarcity is a pressing concern in Jordan, stemming from minimal annual rainfall ranging between 50-200mm, coupled with widespread overexploitation of groundwater reservoirs and inefficient water usage practices. This poses significant risks to agricultural productivity, with a substantial 60% of water supply directed towards agricultural needs. Extreme heat and drought are expected every five years, Hence the need for alternative solutions, particularly rainwater harvesting, which the Government of Jordan allocates great importance for, with a dedicated department for rainwater harvesting at the MoA

    Description of Activities. REWaRD will install rainwater harvesting systems (with a capacity of 30m3 to 100m3 each) at the household level for no less than 180 beneficiaries (in the same governorates - Mafraq, Tafilah, Ma'an and Karak). Beneficiaries will be selected following a clear methodology that favors under-served areas (in terms of rainwater harvesting) while promoting synergy and cumulative impacts (such as privileging households around the rangelands restored by the project). The most suitable rainwater harvesting systems will be identified based on lessons learned from other similar projects, and the units installed accordingly.

    Climate Benefits. Better access to water will strengthen climate resilience of flocks.

34. ***Component 2: Enabling vulnerable groups to income diversification for climate change adaptation*** aims at reducing dependency of poor households on primary production and strengthening their resilience to climatic and economic shocks. REWaRD will support women, youth, and microentrepreneurs for implementing Income Generating Activities in the domains of small ruminant produce processing and retailing. The focus will be on small scale dairy processing and retailing, as well as wool processing. Support provided by the project will also involve technical and business management capacity building, and facilitation of access to finance for working or investment capital, through a revolving fund providing reimbursable grants to smallholders.

35. **Output 2.1. Capacity building to vulnerable groups:**

Background. Supporting income generating activities for vulnerable groups requires prior capacity building for proper understanding of the issues at hand, particularly climate considerations, and accordingly better management of the grants to be provided.

Description of Activities. The livestock and food processing Farmer Field Schools successfully piloted under the IFAD Ruminants Investment and Graduating Households in Transition (SIGHT) project will be upscaled to new Governorates. The number of sessions per year will be increased to incorporate additional topics in the curriculum, on top of animal husbandry technical aspects. These will include environment & climate change, gender, nutrition, business management (Farmer Business School methodology) and financial literacy. A total of 1,200 people are expected to be trained. Technical assistance will be provided to MoA extension department, in charge of this activity, for the development of curriculum modules on additional topics, and for the training of Trainers (ToT) on these topics. Pastoral Field Schools (PFS) will also be implemented in sites selected for rangelands management under Output 1.1.

Climate Benefits. This intervention is expected to enhance climate change awareness and knowledge, thus increasing climate resilience in the sector.

36. **Output 2.2. Supporting income-generating activities for vulnerable groups.**

Background. Women, youth and poor producers in livestock value chains (milk, meat, wool, livestock services) are very vulnerable to climate change and accordingly need support to diversify their livelihoods through launching and growing viable microenterprises, generating income, employment, and broader economic inclusion.

Description of Activities. The most vulnerable groups (women, youth, poor producers) in livestock value chains (dairy, meat, wool, livestock services) will be supported to increase their value addition through either product upgrading (by improving the quality, safety, and packaging of the products as well as environmental standards), or functional upgrading (by allowing smallholder producers and the other operators introducing processing, grading and marketing activities). Matching grants will be provided to the following beneficiaries (total of 2,470), who will receive the technical and managerial support required through output 2.1:

- Women and youth involved in livestock production and dairy/meat processing: to purchase small-scale equipment to process milk into local dairy products, for traditional meat drying and processing, and household artisanal production of other animal source products such as wool.
- Entrepreneurs involved in providing services to the small ruminant value chain (milk/meat collection, transport and marketing): to purchase adequate equipment for milk collection and or equip their milk/meat transport vehicles with the required refrigeration equipment.
- MSMEs involved in dairy and meat processing and marketing (cooperatives, and mainly cooperatives of women and youth already in business, and private companies): to upscale their processing and marketing capacities.

Climate Benefits. Providing grants to the most vulnerable groups in the livestock value chain will help them increase their value addition and diversify their livelihood.

37. **Output 2.3 Establishing a revolving fund providing reimbursable grants to vulnerable groups.**

Background. Microenterprises in dairy, meat processing, and livestock marketing play a vital role in the economy, particularly in rural communities; yet they are characterized by a significant number of small-scale, often informal, businesses. To facilitate financial inclusion for these value chain actors, and diversify their livelihoods where needed, REWaRD will upscale business models that are sustainable and with potential deepening of access to market and institutional finance, thus improving smallholders' income, increasing productivity, and promoting food safety and value chain efficiency.

Description of Activities. REWaRD will work with the Agricultural Credit Corporation (ACC) which is a government institution; to establish a revolving fund for smallholders and vulnerable groups (women, youth, poor producers, etc.) providing reimbursable grants to increase the resilience of small-sale and home-based producers of dairy and meat projects:

- Small-scale and home-based production of traditional dairy products like cheese, labneh, and jameed;
- Small scale meat processing such as custom cuts, meat products (kebabs, kofta, sausages and cured meats); and
- Small-scale production of simple feeds using local material and technology to implement modern feed production techniques like silage making or creating a balanced total mixed ration.

REWaRD will provide the full grant amount, consistent with the AF's full cost of adaptation criterion. The project will support in the development of the legal and institutional setup of the fund, including legal instruments, hosting structure, alignment with financial compliance rules and regulations. The project will also lobby for initial capitalization and develop mechanisms for reflows from reimbursable grants and financial management. Standard Operations Manual will be developed detailing eligibility criteria, modalities for application and approval of requests, templates of grant agreements, Monitoring and Evaluation (M&E) modalities, and sanctions and incentives for compliance or default.

Governance and oversight structures will be identified, organized and trained for effective supervision. Additional parameters necessary for the sustainability and effective operation of the fund will be addressed, including potential partnerships, M&E and learning requirements and risk management framework

Climate Benefits. The seed funds will be provided fully by REWaRD for this revolving Fund which will be used to set up the Fund, raise awareness about it and provide the first batch of grants to beneficiaries. To encourage financing that effectively supports investments aimed at strengthening climate resilience, the batch of grants provided by REWaRD will be for initiatives that directly contribute to climate adaptation, without any co-financing, and with the option of no reimbursement to be further assessed during the project design phase.

38. ***Component 3: Supporting climate policy*** aims at generating knowledge products for inclusive and evidence-based policy dialogue and providing technical expertise for policy and institutional development. REWaRD will focus on policy domains that contribute to climate adaptation.

39. **Output 3.1. Policy support and knowledge generation.**

Background. To secure the sustainability of REWaRD interventions under components 1 and 2, support to policy and knowledge generation is essential. Based on lessons from SIGHT and other projects in Jordan and the region, support to policy formulation can focus on one of these two priority topics for climate adaptation with high potential for sectoral change, and for which there is an existing demand and policy momentum: (i) a small ruminants sector development strategy, to be developed under the umbrella of the overall Agriculture Strategy currently under formulation, and (ii) a national Animal Health strategy, which could rationalize and improve planning of disease control. Knowledge generation can focus on the following two priority topics with learning and upscaling potential: (i) rangeland management; and (ii) alternative feeds and fodder.

Description of Activities. For each of the topics mentioned above, the project will work on the following:
(i) documentation of pilots and lessons and development of knowledge products,
(ii) editing and publication of tailored knowledge products, and
(iii) awareness raising on knowledge products.

Climate Benefits. With the support to policy and knowledge generation in the topics above, the institutional and regulatory environment will be better equipped to support climate-resilient and inclusive livestock development.

B. Project benefits

40. The **overall benefit** of the project is an improved climate adaptive capacity, through the following inter-connected determinants: *infrastructure and technology* (restored rangelands, drought and heat-resistant fodder, harvested rainwater), *skills and equity* (providing vulnerable groups with capacity building, income generating activities and reimbursable grants through revolving fund) and *policy and institutions* capacity (e.g.: small ruminants strategy, …). This will allow rural communities, including vulnerable groups, to better respond to a warmer, hotter and more variable climate. This has multiple benefits for economy, society and the environment, as described in the following paragraphs.

41. The preparation of this concept note was informed by lessons learned from IFAD's portfolio in Jordan, insight from consultations with officials and non-official entities and community members including women, youth, and vulnerable smallholder farmers. During full proposal formulation, a detailed gender assessment and action plan will be prepared, including indicators for gender disaggregated data. IFAD will also define a robust M&E and Grievance Redress Mechanism that will be systematically applied throughout REWaRD interventions to monitor progress and collect feedback. The project M&E and reporting mechanism will: a) track project progress and results on gender and social inclusion responsive indicators; and b) assess impact and compliance with ESP Principles. All stakeholders and direct beneficiaries will be informed on the grievance mechanism, the handling of complaints and the resolution processes.

42. **Economic benefits** will mostly be generated by diversifying and strengthening livelihoods and sources of income for the most vulnerable groups (women, youth and poor producers) in the small ruminants' value chain:

    a. **Healthier and more productive animals**. Restored and community-managed rangeland, drought and heat-resistant fodder, and improved water access across the grazing landscape should result in higher gains in weight and an increase in milk production, generating higher income for the households.

    b. **Reduced cost of feed and water**. Restored and community-managed rangeland, drought and heat-resistant fodder, and improved water access should reduce the need for small holders to buy feed and water – even in times of drought. Reduced costs of buying feed and water increases the profit margin that benefits small ruminants' households and businesses. Improved water availability will help to respond to hotter and drier summers.

    c. **Increased rural households' income and improved livelihoods.** The improved technical and financial capacities will increase accessibility to restored rangelands, climate resilient feed and fodder, water saving technologies, productive resources and markets; 2,470 smallholder producers will receive grants (990 women and 370 youth); financial services provided through REWaRD will lead to improved diversified income and households' livelihoods.

    d. **Increased jobs and entrepreneurship opportunities**. Capacity building to 1,200 vulnerable groups of small ruminant producers (480 females and 180 youth) in the small ruminants' value chain, and access to grants will allow them to improve their business model, diversify their sources of income and accordingly create more jobs.

43. **Social benefits.** The project will benefit 3,780 smallholder producers (1,510 women, and 570 youth), with a dedicated targeting approach for vulnerable groups (women, youth and poor producers) in the livestock value chain (dairy, meat, wool, livestock services), totaling to more than 28,000 target groups (including indirect beneficiaries). More specifically, social benefits will include the following:

    a. Increased equitable access to natural resources. Through the restoration of rangelands (1,500 Ha) and production of climate resilient fodder and feed and rainwater harvesting, small holders will have better and more sustainable access to food systems.

    b. Increased equitable access to finance and market. Benefit to households from formal market access will help smallholders access higher-value markets.

c. **On Gender:** REWaRD will support achieving a) reduced vulnerability to climate change impacts b) addressed negative gender norms, gender inequalities, c) improved household and community awareness on balanced household dynamics, shared responsibilities and decision making and gender equality, d) integrated women role in climate action and improved women adaptation and resilience to climate change impacts, e) improved women awareness and knowledge on food safety and households healthy diets. The project adopting gender transformative approaches will contribute to achieving GEWE objectives: economic empowerment, equal voice between men and women, and balanced workload and women wellbeing. The gender mainstreaming and tailoring interventions to meet women needs[21] across all components, support to women equity in accessing inputs, gender differences in adaptation needs and capacities will be better addressed.

d. **On Youth: REWaRD will support youth social and economic empowerment pathways through** Supporting youth access to technical and financial skills (technical and financial, providing youth friendly financial services (matching grants, and loans), enhance youth access to services (rainwater harvesting, alternative feed,…), strengthen youth leadership and participation in producers' communities for economic empowerment and voice, support youth integration into the small ruminant VC through MSMEs engagement and support young entrepreneurs, and enhancing youth access to markets and market organizations.

e. **Reduced vulnerability of livelihoods** and ecosystems to the negative impacts of climate change in the small ruminant value chain.

f. **An enabling environment for smallholders' livelihood diversification and climate adaptation is supported**. Training will strengthen local capacity for sustainable natural and human resource management, social inclusion, and equitable community access to improved services.

44. **Environmental benefits**. The project will have a direct focus on three natural resources (ecosystems, land and water) and accordingly will have several environmental benefits, including the following:

    a. **Improved soil productivity**. Rangeland restoration, reseeding, control of invasive species and other rangelands improvement measures will lead to healthier and more productive soils.

    b. **Reduced soil erosion**. In addition to improved grazing management, soil conservation measures such as gully rehabilitation, as well as planting of shrubs will reduce soil loss on sites that are prone to soil erosion.

    c. **Enhanced ecosystem services**. Roaming livestock distribute nutrients contained in dung and urine across landscapes. By carrying seeds in their guts and coats, livestock distribute seeds and support habitat connectivity.

    d. **Increased groundwater recharge**. Restoring degraded rangelands and improving rangeland management will increase groundwater recharge.

    e. **Reduced demand for scarce surface and groundwater**. Rainwater harvesting and other water conservation schemes in rangeland restoration as well as testing, piloting and disseminating alternative feed and fodder solutions, which are more drought resistant and less water demanding, will secure more water for small holders, thus reducing demand for surface or groundwater which is very scarce.

    f. **Enhanced environmental awareness**. FFS will increase farmers' awareness of environmental and climate issues. So will the activity related to knowledge production and policy support, which will also promote environmental and climate policy dialogue.

45. Environmental and social impacts are minor to moderate as shown in section K. Means to avoid or minimize these impacts are also listed in the same section.

[21] As identified during women interviews and Focus Group Discussions during the concept note mission in September 2025

C. Cost effectiveness

46. The proposed actions aim to support the resilience of the small ruminants' food systems in the context of climate change, through improved access to rangelands, fodder, feed, and water, and diversification of livelihoods of climate vulnerable households. The project will build on a cost-effective approach to implement sustainable low-cost no-regret measures to manage natural resources and diversify livelihoods. Detailed costs per action and project activity will be provided in the full proposal. Table 6 provides a preliminary comparison of averted losses and alternatives to the project.

Table 6. Preliminary comparison of averted losses and alternatives to the project

Benefits Generated – Losses Averted	Alternative to the Project
Component 1. Strengthening Climate Resilience of Small Ruminants' Food Systems	
1,500 Ha of rangelands are restored following a participatory approach.	Implement landscape restoration without relying on participatory processes that engage local communities in the works, which will result in limited ownership and incapacity for proper operation and maintenance, and accordingly deterioration of the investment over time.
200 households are equipped with pilot hydroponic fodder units; 12 service providers equipped with pilot fodder conservation or processing equipment; and 2,000 households receiving seeds (or seedlings) of drought and heat-resistant fodder, based on adequate research	Invest in alternative feed and fodder without prior research, which could lead to investing in species that would not succeed in the Jordanian environment or in technologies that are expensive to maintain.
180 households are equipped with rainwater harvesting systems designed based on lessons learned from other projects	Select rainwater harvesting systems based on capital cost considerations without looking at past experience in the country, which could lead to investments which are difficult to maintain.
Component 2. Enabling Vulnerable Groups to Income Diversification for Climate Change Adaptation	
1,200 vulnerable small ruminant producers (480 females and 180 youth) receive training on climate resilient practices.	Provide grants to vulnerable groups without prior training, which could jeopardize these grants.
2,470 smallholder producers receive grants (990 women and 370 youth) to diversify their income and households' livelihoods.	Focus on highly commercial value chains to better support the economy, leaving most vulnerable households on the side, which would threaten social development.
Component 3. Supporting Climate Policy	
Knowledge products for rangeland restoration and management, and alternative feed are provided.	Exclude the policy component of the project in order to have more funds for the 2 other components, which would put project sustainability at risk.

47. The overall number of direct target groups exceeds 6,000. This includes: target groups from a) rangeland restoration and management (38 households), b) climate resilient fodder and feed production (2,000 households and 12 MSMEs), c) rainwater harvesting and conservation (180 households), d) capacity building (1,200 people), and e) supporting income generating activities to vulnerable groups and the revolving fund providing reimbursable grants to vulnerable groups (2,470 people). Women will constitute 40% of the beneficiaries for each activity and youth will constitute 15%.

48. Indirect target groups exceed 28,000, including beneficiaries from: a) the positive environmental impacts that will be generated by the project, particularly from rangeland restoration and management (1,500 Ha), in terms of soil productivity, groundwater recharge, etc. (component 1) ; b) income generation activities and access to finance (component 2); and c) policy support component (component 3) which will benefit the entire small ruminants' community through new strategies and knowledge products in the sector, .

D. Alignment with national or sub-national sustainable development strategies

49. Jordan has made progress in defining inclusive rural development policies. Key strategies include the National Strategy for Agricultural Development (2020–2025), National Food Security Strategy (2021–2030), National Financial Inclusion Strategy (2023–2028), National Climate Change Policy (2022–2050) and the updated Nationally Determined Contributions (NDCs).

50. National Strategy for Agricultural Development (2020–2025): The 2020-2025 National Agricultural Development Strategy set priorities to (i) preserve environment and agricultural resources, (ii) enhance self-reliance in food production, (iii) effectively contribute to economic development, and (iv) meet the requirements of internal and external markets. The Strategy gave special consideration to **expanding women's and youth participation, supporting rural livelihoods for refugees and host communities, and mainstreaming climate resilience in all agricultural interventions.**

51. National Food Security Strategy (2021–2030): The National Food Security Strategy (2021–2030) aims at (i) supporting the realization of the role of Jordan as a strategic regional hub for food security that will serve as a center for storage and logistics, agricultural production, food processing, irrigation systems, greenhouses, modern technology, and knowledge transfer and as a hub to provide contingency assistance to the countries of the region; (ii) coordinating efforts and interventions among institutions working in the field of food security; (iii) **monitoring and fostering progress towards achieving relevant SDG targets; (iv) building resilience to climate change and its impacts;** (v) mitigating the impact of COVD-19 on food security; (vi) addressing the consequences of the Syrian refugee protracted crisis on food security.

52. National Financial Inclusion Strategy (2023–2028): Jordan's National Financial Inclusion Strategy (2023-2028) aims **to enhance access to financial services for all segments of society, focusing on empowering women, youth, and small businesses.**

53. In addition to the above texts that are directly supported through REWaRD contributing to the resilience of the agricultural sector and populations, the project fully aligns with the Jordan's climate engagement:

    a. National Climate Change Policy (2022-2050): The updated policy outlines Jordan's approach to mitigating and adapting to climate change over the next three decades. **It prioritizes building resilience in agriculture, focusing on water management, efficient irrigation, and sustainable farming practices to cope with changing climate conditions.**
    b. Jordan's Nationally Determined Contribution (NDC 2016, 2021): The NDC prioritizes emission reductions across key sectors: energy, transport, waste, and water management, with a focus on energy efficiency improvements, renewable energy deployment (particularly solar and wind), and the adoption of low-carbon technologies. It frames adaptation around strengthening water security, climate-resilient livelihoods, and institutional capacity while protecting vulnerable people and ecosystems
    c. National Climate Change Adaptation Plan (2021): This plan focuses on the country's climate adaptation needs, including water management, agricultural practices, and biodiversity protection. It lays out the actions required to address vulnerabilities in agriculture, particularly in water-scarce regions, and to implement climate-resilient farming techniques.
    d. The National Disaster Risk Reduction Strategy (2019-2022; 2023-2030): Focuses on enhancing disaster preparedness for climate-related hazards such as droughts, floods, and extreme temperatures. The strategy aims to build resilience in agricultural and rural communities to mitigate climate-induced risks.

54. These strategies and policies confirm Jordan's commitment to increasing the resilience of its development including its adaptation capacities through climate-resilient, market-oriented agriculture, stronger rural institutions, and more inclusive access to finance. However, persistent gaps remain in the implementation of integrated livestock systems, farmer advisory services, value chain infrastructure, and financial products tailored to poor rural producers, supported through the REWaRD project and similar initiatives on which it builds. Furthermore, REWaRD directly responds to national development priorities mentioned above. In doing so, it contributes to SDGs 1, 2, 5, 10, and 13.

55. Above and beyond, REWaRD creates operational synergies with other IFAD-financed interventions in Jordan, notably SIGHT1 supporting smallholders, REGEP and REGEP-UP, which support horticulture value chains in different target areas and other national programs supported by FAO, WFP, GIZ, and the EU, particularly those targeting water use efficiency, rural livelihoods, and sustainable natural resource management. These programs directly support increasing the resilience of the vulnerable populations based on Jordan's needs and priorities as reflected in these strategies.

E. Alignment with technical standards

56. The project is in full alignment with existing legislation and technical standards. Table 7 provides a list and description of applicable legislation. Table 8 includes technical standards and an appraisal of each standard indicating operationalization status where assessments were conducted (or partially conducted). Overall, these standards and guidelines address critical aspects of Jordan's small ruminant and broader agricultural sectors. However, their operationalization has been uneven, often excluding smallholders and informal actors requiring technical support, upfront capital investments and more consistent monitoring and follow up. That said, the project will build on existing standards where available. Implementing these measures will strengthen uptake, ensure functionality in diverse production systems, and close the gap between policy intent and on-the-ground impact. Furthermore, and on a more practical level, the project will work towards simplifying technical documents into tiered formats, digital tools, or guides tailored to smallholders to improve uptake. Bundling financial incentives (such as micro-grants) with training and follow-up support would also help compliance with existing regulations and standards.

Table 7. Relevant Legislation

Environmental, Water and Climate Legislation	
The law on Environmental Protection No. 6 of 2017	Governs environmental management and establishes the framework for Environmental Impact Assessments (EIAs) in Jordan. Articles 10–14 require that all programmes with potential environmental impacts undergo screening by the Ministry of Environment (MoEnv). The procedures are further detailed in Bylaw No. 69 of 2020 on Environmental Classification and Licensing, which classifies programmes into risk categories and defines whether a full EIA, initial assessment, or simple license is required. Environmental approval must be obtained before permits for construction or operation can be issued. Under this project, most activities directly financed through the grant facility —such as small-scale agricultural or processing infrastructure—are expected to fall under low or moderate risk (Class B or C), requiring only limited assessments. The project will ensure compliance with national procedures and submit necessary environmental documentation as part of the licensing process if needed. Where infrastructure is involved, relevant municipal or local authorities will issue permits in coordination with MoEnv. As for the credit line the responsibility will rely on the borrowers to ensure compliance with national procedures.
Bylaw No. 69 of 2020 on Environmental Classification and Licensing.	Establishes a four-tier classification system for programmes based on environmental risk, determining the level of assessment required—ranging from full Environmental Impact Assessments (EIAs) to simplified procedures. This bylaw is crucial for agricultural and agro-processing programmes to ensure compliance with environmental standards.
Bylaw No. 79 of 2019 on Climate Change.	Outlines the institutional framework for climate change mitigation and adaptation in Jordan, assigning responsibilities to various governmental bodies. It mandates the integration of climate considerations into national planning, which is pertinent for agricultural programmes aiming for sustainability.

The Water Authority Law No. 18 of 1988	Establishes the Water Authority of Jordan (WAJ) as the national body responsible for managing water resources and infrastructure. This law was amended by Law No. 22 of 2014. According to Article 25 of the law, all water resources, including surface and groundwater, regional waters, rivers, and internal seas, are considered state-owned property and cannot be used or transferred except in compliance with this law. Nevertheless, the law also facilitates the issuance of licenses to water users and the formation of water user associations. The licensing of water users is provided by the Ministry of Water and Irrigation, which is responsible for overall water resource management in Jordan. The licensing process involves the issuance of permits to water users, which specify the amount of water that can be used and the conditions under which it can be used. The permits are issued for a specific period, and the water users are required to renew them periodically. The permits also specify the fees that the water users are required to pay for the water they use
Jordan Valley Authority Law No. 30 of 2001	Facilitates agricultural development by regulating land use, irrigation systems, and promoting private sector participation in agricultural programmes.
Groundwater By-Law No. 85 of 2002	Regulates the extraction and use of groundwater resources, requiring permits for drilling and setting usage fees. It aims to prevent over-extraction and ensure sustainable use of groundwater, which is vital for agricultural activities, especially in water-scarce areas.
Waste and Hazardous Materials Management	
Waste Management Framework Law No. 16 of 2020	Provides a comprehensive framework for waste management, including the categorization, collection, treatment, and disposal of various waste types. It emphasizes the roles of different stakeholders and encourages private sector involvement in waste management solutions.
Hazardous Materials and Waste Management Regulation No. 68 of 2020	Specifies the procedures for handling hazardous materials and waste, including storage, transportation, and disposal. It is particularly relevant for agricultural operations that involve the use of chemicals and pesticides, ensuring environmental and public health safety.
Energy Laws	
Renewable Energy and Energy Efficiency Law No. 13 of 2012	Promotes the adoption of renewable energy sources and the implementation of energy efficiency measures. It provides incentives for renewable energy programmes, which can be leveraged in agricultural operations to reduce energy costs and environmental impact.
Agriculture Laws	
Agriculture Law No. 13 of 2015	Jordan's core legal framework for managing agricultural activities. It regulates land use, crop and livestock production, and agricultural inputs such as seeds, pesticides, and fertilizers. The law requires licenses for all agricultural operations, including farms, nurseries, olive presses, and slaughterhouses, and enforces standards for plant and animal health to ensure food safety. It promotes sustainable resource use, prohibits harmful environmental practices, and restricts the export of genetic resources without approval. The law also supports research and innovation to boost productivity and adapt to climate and resource challenges. It is essential for guiding investment, regulation, and development across the agricultural value chain.
Agricultural Workers Regulation No. 19 of 2021	Defines the rights and obligations of agricultural workers and employers, including working conditions, wages, and occupational safety. It aims to improve labor standards in the agricultural sector, contributing to a more sustainable and equitable value chain.
Law No. 24 of 2000 for the Protection of New Plant Varieties	provides intellectual property protection for breeders of new plant varieties, encouraging innovation and the development of improved crops. This law is essential for advancing agricultural productivity and resilience
Other Development, Zoning and Construction Laws	

Jordan Valley Development Law (as amended by Law No. 30 of 2001)	Focuses on the integrated development of the Jordan Valley, emphasizing agricultural expansion, infrastructure development, and environmental conservation. It provides a strategic framework for programmes aiming to enhance agricultural productivity in the region.
Land Use Regulation Law	Governs land use planning and zoning, aiming to balance development needs with environmental protection and agricultural land preservation. This law is vital for maintaining sustainable land use practices in agricultural areas.
Construction Contractors Law No. 13 of 1987 (amended by Law No. 4 of 2014)	Regulates the licensing and operation of construction contractors, ensuring that construction activities, including those related to agricultural infrastructure, meet established standards and safety requirements.

Table 8. Relevant Standards

Title	Issuing Institution	Date of Issue	Objective	Operationalization Status
Water Harvesting Guidelines for Al-Mashareʾ Region	Ministry of Water and Irrigation (MWI) with FAO support	2021	Outline integrated approaches to capture, store and utilize rainwater to bolster agricultural water supplies.	Pilot-only—no statewide roll-out beyond FAO-supported zones.
National Vaccination Schedule for Sheep and Goats	Ministry of Agriculture (MOA)	2018	Control and prevent major infectious diseases in small ruminants through a coordinated vaccination plan.	Good in settled flocks; poor coverage in transhumant communities.
Guidelines for Sheep and Goat Breeding & Genetic Improvement	Ministry of Agriculture (MOA)	2016	Enhance productivity and disease resistance of flocks via selective breeding and genetic-improvement programs.	Implemented in research stations; limited transfer to village flocks.
Guidelines for Good Agricultural Practices in Animal Production	Ministry of Agriculture (MOA)	2015	Standardize on-farm biosecurity, animal welfare and production management across livestock sectors.	Low—biosecurity and welfare measures unevenly applied in small ruminant herds.
Guidelines for Rangeland Management in Jordanian Badia	Hashemite Fund for Development of Jordan Badia (HFJBD)	2013	Promote sustainable grazing practices and protect fragile rangeland ecosystems in the Badia region.	
Manual for On-Farm Water Harvesting Systems	Ministry of Agriculture (MoA)	2012	Provide step-by-step design and construction guidance for small-scale rainwater harvesting structures on farms.	Minimal—few smallholders build recommended structures without external support.
Manual for Calculating Feed Rations for Sheep and Goats	National Agricultural Research Center (NARC)	2011	Standardize nutrient requirement tables and ration-formulation methods for optimal small ruminant growth and health.	Largely theoretical—applied in research on-station, not on private farms.
Standards for Drinking Water Quality for Livestock	Ministry of Health (MoH)	2010	Ensure safe, clean water sources for livestock to minimize waterborne diseases.	

Title	Issuing Institution	Date of Issue	Objective	Operationalization Status
JS 910: Specification for Fresh Sheep and Goat Meat	Jordan Standards and Metrology Organization (JSMO)	2008	Ensure quality, hygiene and safety requirements for fresh sheep and goat meat products.	Partial—mostly in larger slaughterhouses; rural facilities under-resourced.
JS 984: Compound Feed for Sheep and Goats	Jordan Standards and Metrology Organization (JSMO)	2007	Define nutritional composition, contaminant limits and labeling requirements for small-ruminant feed.	Limited—adherence high in commercial mills; low among backyard producers.
JS 286: Specification for Irrigation Water Quality	Jordan Standards and Metrology Organization (JSMO)	2005	Define physical, chemical and microbiological limits to ensure water is safe and suitable for agricultural irrigation.	Variable—irrigation districts monitor larger supplies; private wells untested.

F. Duplication

57. An overview of the relevant existing and planned projects in Jordan shows that there is no risk of duplication by the project with other funding sources. In fact, the project builds on the first phase of the successful implementation model of the Small Ruminants Investment and Graduating Households in Transition Project (SIGHT1) closing on 30 December 2025 and creates operational synergies with other IFAD-financed interventions in Jordan, notably REGEP and REGEP-UP, which support horticulture value chains in different target areas. Furthermore, the second phase of the Small Ruminants Investment and Graduating Households in Transition Project (SIGHT2) – expected to start in 2026, will provide critical knowledge supporting the design and implementation of REWaRD. REWaRD will also coordinate closely with national programmes supported by FAO, WFP, GIZ, and the EU, particularly those targeting water use efficiency, rural livelihoods, and sustainable natural resource management.

Table 9. List of on-going or planned projects with similar objectives and geographical scope.

Project name	Summary and geographic area	Complementarity potential
IFAD funded Small Ruminants Investment and Graduating Households in Transition Project (SIGHT1) – 2017-2025 – closing in December 2025 Total cost: US$ 22.7 M Including: IFAD financing: US$ 8.9M)	Objective: Contribute to reducing rural poverty and enhancing national food security through targeted investments in: • Livestock productivity • Sustainable livelihood support • Rural infrastructure Target areas: Mafraq, Jerash, Irbid, Ajloun, Madaba, and Amman outskirts. Fijaij, Wala, and Khanassri breeding stations.	This project builds on the results of SIGHT1 and upscaled efforts while focusing on climate adaptation measures in small ruminants. Risk of duplication: Non-existent. The project is led by IFAD; coordination will ensure that activities are complimentary rather than overlapping or redundant.

Project name	Summary and geographic area	Complementarity potential
IFAD funded Small Ruminants Investment and Graduating Households in Transition Project (SIGHT2) – 2026-2032 – pipeline. Total cost: US$ 34 M Including $US 15 M from IFAD.	Objective: Improve productivity, resilience, profitability, and small-ruminant value chain contribution to smallholders' livelihoods. Target areas: Nationwide, with a focus under component two on the southern governorates showing high levels of vulnerability, namely Ma'an, Karak, and Tafilah, in addition to Mafraq in the North.	This project's objective is in line with REWaRD. The project team will build on SIGHT2 for the identification of pilot sites, potential resilience enhancement measures to be implemented in the target areas. Risk of duplication: Non-existent. The project is led by IFAD; coordination will ensure that activities are complimentary rather than overlapping or redundant.
IFAD funded Rural Economic Growth and Employment Project (REGEP), 2014-2025 – Ongoing. Total Cost: US$ 39.17 M including 24 M from IFAD.	Objective: Reduce poverty and build resilience by enhancing employment opportunities and improving the competitiveness of small-scale farmers and rural enterprises. Also seeks to strengthen value chains for high-value crops that require less water, aligning with Jordan's national priorities for sustainable agricultural development. Target areas: Nationwide with an initial focus on the rural areas of Ajloun, Jerash, Balqa, Madaba and Mafraq,	Potential to upscale rangeland rehab pilots; Build on flocks' aggregation into coops; Share fodder & credit models. Risk of duplication: Non-existent. The project is led by IFAD; coordination will ensure that activities are complimentary rather than overlapping or redundant.
World Bank's Agriculture Resilience, Value Chain Development & Innovation (ARDI), 2022-2029 – ongoing. Total cost: US$ 350M	Objective: Strengthen climate resilience and enabling environment for selected agri value chains, including water-use efficiency, veterinary services, traceability, and private sector linkages. Target areas: Nationwide with focus on Badia/rangelands and selected value chains	This project supports the ACC through: (i) financing to farmers for adopting climate-smart and water-efficient agricultural practices, (ii) strengthening Agricultural Value Chains from production and post-harvest handling to processing and marketing, and (iii) promoting innovation and technology by providing financing for farm management. Risk of duplication: Limited. Coordination will ensure that activities are complimentary rather than overlapping or redundant. Coordination will address locations/sites of interventions, technologies adopted, channeling of existing funding through the revolving fund to be set-up by REWaRD.

Project name	Summary and geographic area	Complementarity potential
World Bank funded Jordan Growth and Competitiveness Development Policy Financing; signed in April 2025 Total cost: US$ 400M loan and private sector financing.	Objective: Support reforms initiated under the Government's Economic Modernization Vision (EMV) 2033 through (i) improving the enabling business environment, and (ii) deepening access to finance, (iii) increase private sector job opportunities, particularly for youth and women Target areas: Nationwide	Risk of duplication: Limited. Coordination will focus on access to finance in rural areas, including the adoption of the revolving fund for rural populations and smallholders.
WFP funded Credit and Loans Initiative for Modern Agricultural Technology Enhancement (CLIMATE), 2025-2027, ongoing.	Objective: Enhance productivity, reduce losses and improve livelihoods of agribusinesses and cooperatives through low-interest loan products. Target areas: Jerash, Mafraq, and Balqa.	The program provides different loan ceilings for various climate-resilient agriculture projects. Risk of duplication: Non-existent. Coordination will focus on access to finance in rural areas, including the adoption of the revolving fund for rural populations and smallholders.
WFP implemented Community-Based Natural Resources Management Project, ongoing	Objective: Increase, protect, and maintain the natural ecosystems (farmland, rangeland, forest) in Jordan by deploying community based natural resources management activities and establishing and/or enhancing Community Sustainability Committees (CSC). Target areas: Ajloun, Balqa, Irbid, Jerash, Mafraq.	Potential for upscaling rangelands management initiatives in target areas. Risk of duplication: Limited. Coordination will focus on sustainable farming practices and business management.
FAO Strengthening Jordan's Agriculture Sector Through Enhanced Capacities and Market Access, 2025-XX, Ongoing.	Objective: Improve food security and the livelihoods of rural communities by supporting farmers in adopting sustainable farming practices, increasing productivity, and improving access to markets. Target areas: Madaba, Karak, Tafilah and Ma'an.	Potential to upscale training in climate-resilient agricultural practices through Farmer Field Schools and curricula developed through REWaRD. Risk of duplication: Limited. Coordination will focus on aligning training content and targets/beneficiaries to avoid duplication on specific topics.
FAO Building Resilience to Cope with Climate Change in Jordan through Improving Water Use Efficiency in the Agriculture Sector (BRCCJ), 2021-2029 Total cost: $US33.3 M from GCF	Objective: Reduce the vulnerability of rural communities to climate change impacts, particularly water scarcity, by improving water use efficiency in agriculture. Target areas: Dead Sea Basin, in areas most vulnerable to climate change: Madaba, Karak, Tafilah and Ma'an.	Potential to upscale training in climate-resilient agricultural practices through Farmer Field Schools and curricula developed through REWaRD. Risk of duplication: Limited. Coordination will focus climate-smart practices, including water efficiency in agriculture and value chains.

Project name	Summary and geographic area	Complementarity potential
FAO Achieving land degradation neutrality targets through restoration and sustainable management of degraded land in Northern Jordan. Signed in January 2025 Total cost: $US 4M from GEF	Objective: Support national efforts to neutralize degraded lands through forest management and rehabilitation and improving the productivity of pastures and barren lands in the northern governorates as a first stage. Target areas: Nationwide	Potential for upscaling rangelands management initiatives in target areas. Risk of duplication: Limited. Coordination will focus on the identification of rangelands restoration sites, restoration guidelines and techniques adopted, and beneficiaries.
UNEP Jordan Integrated Landscape Management Initiative (JILMI), 2025-2033- ongoing. Total cost: S$60.5M, including US$45M from the GCF.	Objective: Reduce the negative impacts of climate change on water resources in Jordan through improved aquifer recharge in a landscape-level approach. The proposed approach includes: i) improved ecosystem management through land restoration, improved agricultural practices and managed aquifer recharge; ii) rainwater harvesting; iii) evaporation reduction from the King Talal Dam; and vi) strengthened governance. Target areas: Yarmouk, Amman Zarqa, and Jordan Rift Valley Basins.	Potential to build on results in REWaRD targets areas, including rainwater harvesting efforts and rangelands restoration. Risk of duplication: Limited. Coordination will focus on the identification of rangelands restoration sites, restoration guidelines and techniques adopted, and beneficiaries.

G. Learning and knowledge management

58. The proposed project places a strong emphasis on learning and knowledge management as a key approach to achieving behavioral change of rangelands users. The proposed project aims to improve data availability on rangelands, generate new knowledge on the relationship between rangelands and climate change and details mechanisms to disseminate data and knowledge.

59. The project focuses on the following two priority topics with learning and upscaling potential: (i) rangeland management; and (ii) alternative feeds and fodder. It will involve, for each topic: (i) documentation of pilots and lessons and development of knowledge products, (ii) editing and publication of knowledge products, and (iii) awareness raising on knowledge products.

60. A number of project outputs will also contribute towards this:

    a. Data to support evidence-based decision-making. Data is key for management. The rangelands inventory on the full extent, ownership, usage and conditions of rangelands will provide the necessary data to help local government staff and herders understand where vulnerable rangelands are and identify appropriate management and restoration measures.

    b. Participatory rangelands planning. The process of establishing rangelands management plans is also a learning process for rangelands users and local government staff (MoA or other). They assess where vulnerable rangelands are, understand what adaptive approaches towards climate change are possible, and decide on what measures are the most appropriate to improve their conditions.

    c. Training and demonstration sites. The project can establish demonstration plots to display good grazing management and successful rangelands rehabilitation measures. The sites will act as training locations for rangelands users to discuss adaptive grazing management and the most effective measures to manage rangelands sustainably. The project will also refer to previously restored sites showing the results of successful efforts.

61. Knowledge management will be mainstreamed across all project components. Generated knowledge will be embedded in Component 3 – Policy support and project coordination. This component will lead the design of inclusive livestock policies, enhance institutional systems, and coordinate project-wide knowledge activities. Dissemination will be tailored to targeted audiences, including government, donors, research institutions, and IFAD platforms. Methods include policy roundtables, technical working groups, stakeholder workshops, and co-publication with technical partners.

H. Consultation and engagement process

62. **Stakeholder Engagement Planning.** Planning for the stakeholder engagement was initiated ahead of the mission that took place in September 2025 to prepare this concept note, with the objective of ensuring inclusivity, on the ground evidence and geographical representation. A comprehensive list of the stakeholders consulted during the mission is provided in Table 9 (Annex 2) along with some photos.

63. **Inclusivity.** Consultation covered government representatives (at the central and local level); local communities and potential beneficiaries (including small herders, women, etc.), NGOS, private sector, international organizations, and others. Focus group meetings were also held with vulnerable groups (such as women).

64. **On the ground evidence**, Meetings were complemented with field visits (to breeding stations, rangelands, dairy facilities…) to better understand concerns and challenges.

65. **Geographical representation:** The consultation and engagement process covered both the national level (Ministry of Agriculture, Ministry of Environment, National Agriculture Research Center, etc) and the regional level – governorates (MoA Directorates; Small Herders; Women; ...)

I. Justification of funding request

66. The proposed project responds to a request of the government. Annex 1 presents the official letter from the Jordanian Ministry of Environment to IFAD endorsing the proposed project.

67. MoA sees the necessity of mobilizing further resources for sustainable rangelands management, in complementarity to other on-going and planned projects in the sector considering the growing needs and vulnerabilities to climate change in Jordan. MoA aims to use this project to further support its reform around rangelands legislation and to upscale promising approaches that are currently being piloted in IFAD's SIGHT (and planned SIGHT2) and other donor funded projects.

68. One of the project's strengths is that it is complementary to SIGHT (and the planned SIGHT2). While the new project will continue and upscale SIGHT's efforts on improving resilience, profitability, and small-ruminant value chain contribution to smallholders' livelihoods, REWaRD covers measures increasing the resilience of the small ruminants' food systems, such as improved access to feed and fodder and water resources. While being complementary to SIGHT1 and SIGHT2, the project will not rely on any co-financing or external support to generate adaptation benefits. REWaRD will act as a standalone project. It will however build on knowledge generated from these projects to maximize the efficient use of resources and time.

69. The table below outlines the baseline and the alternative adaptation scenarios that the Adaptation Fund will help materialize.

Table 10. Business As Usual Scenario and Adaptation Fund Additionality

Business As Usual Scenario	Adaptation Fund Additionality
Component 1: ***Strengthening Climate Resilience of Small Ruminants' Food Systems***	
Decreased productivity of the small ruminants' sector. Climate models predict higher temperatures in the whole country (and mean maximum temperatures) and less rainfall, with higher probability of drought. Herd watering in hot days is likely to increase with temperature increases. A general decrease in rainfall also affects grasslands and contributes to rangelands degradation. In conditions of water and food scarcity, milking productivity decreases.	The project will implement rainwater harvesting systems, thus enhancing access to water. The project will also introduce, pilot and disseminate drought and heat-resistant fodder, thus reducing demand on water and enhancing access to feed. The project will restore selected degraded rangelands and equip rangelands users with the knowledge to sustainably assess, monitor and manage rangelands through the designing and implementation of rangelands management plans. These plans aim to support rangelands users to adapt to the changing climate and mitigate against any adverse impact of reduced precipitation and increased temperatures (further addressed in the second baseline scenario). This includes the reliance on the fore-mentioned climate resistant fodder species as alternative and/or supplementary feeding in drier seasons. The total number of beneficiaries is 2,218 households.
Pressures on rangelands. Rangelands are subject to overgrazing due to the poor current governance system. Tools for sustainable management are not in place. This adds pressure on rangelands and soils causing their degradation - making the entire production system vulnerable to the effects of climate change.	The project will address overgrazing and rangelands degradation by promoting rangeland management plans (progressively leading towards a sustainable rangelands governance system). This includes a detailed inventory of the extent, quality and ownership of rangelands, as well as establishing a monitoring system. Management plans define boundaries of rangelands' providing secured access to a group of users for grazing. This provides an incentive for them to sustainably manage rangelands. Plans also lay out grazing measures, rangelands infrastructure improvement measures and restoration actions. The rangelands management plans will lay out management measures for herders to respond to changing climate. Measures include e.g. grazing routes matching mobility with existing vegetation and carrying capacity, planning of rangelands recovery periods, adaptive stocking rate strategies, etc. A total of 1,500 Ha of rangelands will be restored
Component 2: Enabling Vulnerable Groups to Income Diversification for Climate Change Adaptation	
Reduced households/income as a result of decreasing productivity (because of water and food scarcity).	The project will address diversification of livelihoods for vulnerable groups (youth, women and poor producers) along the small ruminants' value chain, through building their adaptive capacity and improving access to financial and non-financial resources and capacity building. The total number of beneficiaries is 2,470 (990 women; 370 youth)
Component 3: Supporting Climate Policy	
A weak policy and institutional framework for climate resilience of the small ruminants sector.	The project will develop knowledge products on rangeland management and alternative feed and fodder. The total number of beneficiaries is 28,000

J. Project sustainability

70. The proposed project aims to increase the climate resilience of small ruminants' food systems. This is done through improved access to rangelands, fodder, feed, and water, and diversification of livelihoods of climate vulnerable households. These activities are meant to reduce the vulnerability of rangelands and their users to climate change by improving the management and sustainability of natural resources. It aims to support evidence-based policy reform and knowledge creation supporting adaptive measures.

71. The project is based on, and is driven by, sustainability principles that are promoted throughout the project activities. The project's sustainability builds on beneficiary empowerment through: awareness raising; capacity building; cost-effective and environmentally friendly and long-lasting solutions to help restore, improve and protect the rangelands ecosystem-services.

72. The project aims to contribute to resolving a main barrier of adaptation: By strengthening access to financial resources, rangelands user groups have strong incentives to improve grazing practices and adapt climate resilient practices. Improved grazing strategies and better rangelands infrastructure will also yield sustainable results at eco-system level with positive co-benefits for biodiversity and carbon sequestration.

73. There are several elements that may impact the sustainability of the project (Table 111111).

Table 1111. Sustainability concerns and project mitigation measures

Sustainability Consideration	Mitigation Measures Proposed by the Project
(I) Institutional Sustainability	
Strengthening MoA's management and collaboration with the National Agricultural Research Center (NARC) and the Agricultural Credit Corporation (ACC).	Continued engagement with these institutions; alignment with their annual programs funded by donors or government
(II) Governance Sustainability	
Adopting community-based rangeland management systems	Empowerment and training of local communities to manage resources sustainably
Disseminating learnings and knowledge products	Sharing learnings with various stakeholders to influence policy and promote replication
(III) Financial Sustainability	
Developing adequate financial instruments to support herders and other actors of the value chain in financing their activities.	Incentives for ACC to deepen rural outreach and tailor livestock financial products through co-financing schemes.
Targeting of vulnerable groups (women and youth entrepreneurs)	Technical and managerial training to ensure business viability and market orientation
Ensuring that circular economy principles are adopted in feed and water systems	Adopt resource-efficient technologies (e.g., hydroponics, micro-irrigation) to reduce costs, including the use of appropriate water harvesting techniques to preserve underground resources and reduce reliance on costly water systems

K. Environmental and social impacts

74. The main findings of the risk screening are integrated in the table below. Based on the SECAP screening tool, the overall environmental, social and climate risk of the project is moderate which responds to the Adaptation Fund's categorization of Category B.

75. The full proposal will include the final risk categorization, an Environment and Social Management Plan (ESMP), Gender Assessment; Stakeholder Engagement Plan (SEP) and a Grievance Redress Mechanism (GRM). Additional studies and documentations will be developed in accordance with Government of Jordan Guidelines and Adaptation Fund Social and Environmental Policy standards. The project will conduct gender-disaggregated data collection at baseline level at the early implementation stage of the project and a social inclusion and targeting specialist will be recruited to ensure gender and social inclusion considerations are fully aligned with in project design and implementation.

Table 1212. Environmental and Social Risk Screening

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		The Concept Note was developed in compliance with the legal framework and laws. Relevant governmental and non-governmental entities have been consulted during the CN development to ensure compliance. The project design and implementation arrangements will ensure full compliance with all relevant laws, regulations and technical standards. In the absence of national standards, the project will apply internationally recognized standards. The PMU and other government authorities will ensure compliance of relevant national laws. Furthermore, this project will build on the lessons learned from the Small Ruminants Investment and Graduating Households in Transition Project (SIGHT) having similar objectives, implemented in line with existing applicable regulations.
Access and Equity		Some risks might arise from community dynamics, social norms, or exclusion to vulnerable groups such as women and youth. - Gender-based barriers and cultural norms women limited mobility and equitable access to assets, collateral and membership in producers' groups may hinder their targeting in specific project activities (e.g. FFS, leadership, etc.); - Youth: Community norms, may limit youth voice and their participation in decision-making processes; - Local communities need to be involved in the selection of the rangelands to be restored, the species to be planted, the technique to be used for water conservation, as well as monitoring and management. Lessons from projects implemented by other partners indicate a 5-fold increase in the biomass productivity when such approaches were adopted. - Access disparities: there is a risk that access to climate-smart technologies and resources could be unevenly distributed, favoring those with better connections or stronger economic positions. - Elite capture: more influential community members might dominate cooperatives or decision-making processes, limiting the participation of marginalized groups. Key considerations and mitigation measures will be considered through the design stage as the project will be designed to support equity in access to training, equipment, infrastructures, and services, taking especially into account marginalized and vulnerable groups, such as women and youth.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Marginalized and Vulnerable Groups		**Women**: some cultural and restrictive social norms marginalize women participation in public decision making and leadership roles **Youth**: young people, particularly in rural areas, may face obstacles in accessing decision-making spaces or securing equal opportunities in value chain activities **The poorest population** and more vulnerable to exclusion especially in rural communities where REWaRD will operate in. The project main target groups are the poorest and poor smallholder farmers, women, and youth. The design report will include targeting strategy and approaches that aim at achieving best mobilization and outreach of vulnerable groups and ensure they have equitable and more secure access to rangelands and project interventions. All needs and concerns will be identified during the full proposal preparation phase, including the mechanism to ensure participation and equal access.
Human Rights		The project will respect international human rights. It integrates overarching human rights principles to strengthen social and environmental sustainability by including measures to assist Jordan in these respects. During the full proposal development phase, any potential risk of human rights violation during project activities will be further assessed, and the project GRM will be fully operationalized and publicly spread at an early stage of the project implementation.
Gender Equality and Women's Empowerment		The project will promote gender equity and women's empowerment through its targeting strategy and Gender Action Plan. Specific measures include: • Conducting gender analysis in conjunction with stakeholder engagement, so that the rights, needs and opportunities of women and men and the different needs, roles and barriers are recognized and addressed. • Ensuring strong outreach strategies to achieve active participation of women in the participatory planning process (e.g. through focus group discussions including women). • Ensuring women are represented in committees that prioritize adaptation measures in rangelands management plans to be developed. • Selection of project interventions shall accommodate all women needs and participation, such as adequate timing and location of capacity-building activities, etc., to remove barriers to women and youth.
Core Labour Rights		Some risks could arise concerning labour rights from limited awareness, and the significant informality of the sector, leading to low wages, limited labour rights and not compliance with the national labour laws. REWaRD will comply with ILO standards and the Jordanian laws on labour rights and conditions: • The project will raise awareness on child labour and ensure strict adherence to mitigation measures in all procurement and implementation procedures of the project. • The ESMP that will be developed at the design stage will include specific mitigation, monitoring, reporting, and escalation processes for labour conditions including the risk of child labour.
Indigenous Peoples	X	Not applicable as there are no indigenous peoples in Jordan.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Involuntary Resettlement	X	The project will not involve any involuntary resettlement. The rangelands inventory will identify ownership status of rangelands and their current users. Temporary closure of degraded areas to allow restoration recovery, may affect households living around/ dependent on those specific grazing zones. This closure will be temporary and will not permanently exclude pastoralists. Implementation will follow participatory planning processes ensuring that local communities are engaged in the selection of sites and planted fodder and aware of the temporary measures. Through the participatory rangelands planning beneficiaries will agree with proposed interventions, thereby avoiding any involuntary resettlement. Where deemed relevant for the sake of rangelands management measures, such measures will be temporary and agreed upon with impacted populations.
Protection of Natural Habitats		The proposed activities within the geographical clusters of intervention within each governorate will be reviewed to make sure they are not located in or around protected areas. Furthermore, screening will apply for the grants delivered to ensure no financing is directed to projects with potential negative impacts on natural habitats. The ESMP which will be developed during design will include the screening criteria.
Conservation of Biological Diversity		The project is not likely to lead to overgrazing, since it foresees activities related to restoration of rangelands and support community-based rangeland management. Rangelands management plans will also identify areas of high value for biodiversity and will flag these as such to identify appropriate measures (e.g. grazing restrictions). The exact project site locations will be the result of detailed analyses that will rank all communes in the target areas according to criteria. Compliance will be monitored through progress reports; supervision missions; the mid-term review; impact assessment; and terminal evaluation. Adapted and native species will be used in reseeding activities. New genetic materials will not be introduced nor any ecosystem affected. Small scale infrastructure, such as water harvesting facilities, will be established in pre-designated agricultural areas and constructed while ensuring they do not require the clearing of natural habitats (e.g., tree removal), Furthermore, screening will apply for the grants delivered to ensure no financing is directed to projects with potential negative impacts on biodiversity, habitats, or ecosystem.
Climate Change		The project is not expected to increase absolute GHG emissions since the small ruminant populations are expected to remain stable or even decrease given the productivity gain. On the contrary, vegetation cover gains from rangelands restoration and improved management are expected to contribute to improved organic carbon stocks and carbon sinks.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Pollution Prevention and Resource Efficiency		Overfertilization of rangelands is not a risk in Jordan. Aspects related to other pollutants release to the environment will be prevented by ensuring environmental compliance by the grants delivered (e.g. wastewater collection/treatment at supported dairy facilities). Fodder production, will be supported at a small scale, using drought and heat-resistant species, and accordingly not causing an additional stress on water. Water scarcity issues will be addressed by supporting rainwater harvesting. Awareness and training on water saving and waste management will also be provided. Compliance will be monitored through progress reports, supervision missions, the mid-term review, and terminal evaluation.
Public Health		The project is designed and will be implemented in a way that avoids potentially significant negative impacts on public health. Some common risks were identified, and risk level will be further finalized at the design stage. Despite notable achievements, rural laborers are exposed to unsafe and hazardous labor conditions as they tend to endure long hours of work, lack protective equipment and receive inadequate safety training, and risks from communicable diseases from animals. The project design will integrate a plan to ensure proper risk mitigation and safe labor practices are promoted. REWaRD interventions will also ensure that all appropriate OHS measures are taken and monitored in accordance with national and international standards and IFAD SECAP procedures, and Adaptation Fund. The project will ensure that all appropriate health and safety measures are taken in accordance with both national and international standards, and monitoring compliance tools will be detailed in the project design.
Physical and Cultural Heritage		The project is unlikely to have any adverse impacts on physical and cultural heritage of the people in the intervention areas. Rangelands management plans will flag any areas and will define measures if deemed necessary. Intangible cultural heritage such as traditional methods of dairy and meat processing will positively benefit from the project as it will integrate this traditional knowledge into sustainable livestock and dairy production while ensuring that modernization efforts are fully aligned with cultural traditions and contribute to food safety and community health. Consultations will be held with local communities for any activities involving the utilization of intangible cultural heritage/tradition knowledge.
Lands and Soil Conservation		The project aims to improve vegetative cover, introduce soil conservation measures, plant resilient and diverse native plant species and improve water availability and management. Small-scale rural infrastructure, such as water harvesting facilities, will be established in pre-designated agricultural areas and constructed while ensuring they do not require any tree removal (and accordingly increase of soil erosion risk), and when using natural resource materials, preference will be given to suppliers adhering to environmental management and energy efficiency standards.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Demonstrate how the project aligns with the Results Framework of the Adaptation Fund

REWaRD will be implemented through a dedicated Project Management Unit (PMU) hosted within MoA. A Steering Committee (PSC), chaired by MoA and co-chaired by the Ministry of Environment (MoE) will meet bi-annually to approve the Annual Work Plan and Budget (AWPB), review implementation progress, and provide strategic guidance. A Project Technical Coordination Committee (PTCC) will ensure operational coordination, troubleshoot implementation challenges, and facilitate real-time learning across components.

Table 131313 demonstrates how the proposed REWaRD project aligns with the Results Framework of the Adaptation Fund.

Table 1313. Alignment of the proposed REWaRD project with the Adaptation Fund Results Framework

Proposed Project		Adaptation Fund		Grant Amount (USD)
Project Development Objective	To support climate resilience of small ruminants' food systems through improved access to rangelands, fodder, feed, and water, and diversification of livelihoods of climate vulnerable households.	**Outcome**	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	9,998,356
Objective Indicator	*Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices*	***Outcome Indicator***	*Core indicator 5: Ecosystems and natural resources brought under protection, restoration or improved management in response to climate variability and change*	
		Outcome	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	
		Outcome Indicator	*Indicator 6.1: People adopting improved and/or new climate resilient livelihood practices*	
		Outcome	Outcome 7: Improved policies and regulations that promote and enforce resilience measures	
		Outcome Indicator	*Indicator 7: Policies, strategies, and/or plans adopted, implemented, and/or enforced that integrate climate risk and resilience considerations.*	
Outcome	Outcome 1: Increased ecosystem resilience for the small ruminants' sector	**Output 5.1**	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	3,443,772

Proposed Project		Adaptation Fund		Grant Amount (USD)
Outcome Indicator	*Outcome 1 Indicator Land brought under climate-resilient practices*	***Output indicator***	*Indicator 5.1.1 Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management*	
Outcome	Outcome 2: Diversified and strengthened livelihoods and sources of income for the most vulnerable groups in the livestock value chain	**Output**	Output 6.1: Targeted individual and community livelihoods strategies strengthened in relation to climate change impacts, including variability	4,603,729
Outcome Indicator	*Outcome 2 Indicator: Households reporting using rural financial services*	***Output indicator***	*Indicator 6.1.1: People receiving targeted support for new and/or improved livelihoods to manage climate risk*	
Outcome	Outcome 3: Strengthened policy and institutional capacity for climate adaptation	**Output**	Output 7.1 Improved integration of climate resilience strategies into country development plans	316,713
Outcome Indicator	*Outcome 3 Indicator: Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment*	***Output indicator***	*Core indicator 7.1.1: Policies, strategies, and/or plans developed or adjusted to integrate climate risk considerations*	

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government

Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

Dr. Aiman A. Soleiman, Minister of Environment, Ministry of Environment	Date: November 3, 2025

B. Implementing Entity certification

Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Implementing Entity coordinator: Mr Pierre Guedez, Pierre Yves, Lead Climate and Environmental Funds, ECG division 	Email. p.guedez@ifad.org
Mr Juan Carlos Mendoza Casadiegos Director Environment, Climate, Gender and Social Inclusion Division	
Date: November 17 2025	Email: ecgmailbox@ifad.org
Project contact persons:	
Mr Walid Nasr Regional Lead Climate and Environment Specialist	Email: w.nasr@ifad.org
Mr Vrej Jijyan, Country Director	Email v.jijyan@ifad.org

ANNEXES

Annex 1: Letter of endorsement of MoE

Ministry of Environment

Ref.No 2-7-6983
Date 3-11-2025

The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for Resilient Ecosystem, Water and Rangelands Development (REWaRD) Project

In my capacity as designated authority for the Adaptation Fund in Jordan, I confirm that the above national project concept note is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Jordan.

Accordingly, I am pleased to endorse the above project concept note with support from the Adaptation Fund. If approved, the project will be implemented by the International Fund for Agricultural Development (IFAD) and executed by the Ministry of Agriculture (MOA).

Sincerely,

Minister of Environment

Dr. Aiman A. Soleiman

THE HASHEMITE KINGDOM OF JORDAN
TEL : +962 6 5560113 FAX : +962 6 5516377 P.O.BOX : 1408 AMMAN 11941 JORDAN www.moenv.gov.jo

ADAPTATION FUND

Revised PFG Submission Form[1] (additions in red)

Project Formulation Grant (PFG)

Submission Date:

Adaptation Fund Project ID:
Country/ies: Hashemite Kingdom of Jordan
Title of Project/Programme: Resilient Ecosystem, Water and Rangelands Development (REWaRD) project
Type of IE (NIE/RIE/MIE): Multilateral Implementing Entity
Implementing Entity: International Fund for Agriculture Development (IFAD)
Executing Entity/ies: Ministry of Agriculture (MoA)

A. Project Preparation Timeframe

Start date of PFG	April 2026
Completion date of PFG	March 2027

B. Proposed Project Preparation Activities ($)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note[2]
Gender and Environmental and Social risk analyses and formulation of Environmental and Social Management Plan and Gender Action Plan. This document is required as part of the submission of the full proposal.	• Environmental and Social Management Plan and Gender Action Plan formulated.	20,000	• Consultancy fees: 13,000 USD • Logistics costs: 7,000 USD

[1] As presented in AFB/PPRC.33/40 Annex 1.
[2] The proposal should include a detailed budget with budget notes indicating the break- down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

Consultancies on Rangeland ecological & degradation assessment	• Determine selection criteria for site selection for the rangeland restoration • Assess the technical feasibility of the selected sites • Assess the rangeland management mechanism and its governance	**50,000**	• Consultancy fees: 40,000 • Logistics: 10,000
Consultancies on policy & institutional gap analysis	• Policy analysis report highlighting regulatory gaps and recommendations for improved rangeland and small-ruminant management	**10,000**	Consultancy fees: 10,000
Consultancies on economic and financial feasibility analysis	• Cost-benefit analysis for rangeland restoration, water harvesting, and livelihoods investments	**20,250**	• Consultancy fee: 13,250 • Logistics costs: 7,000 USD
Consultancies to develop project proposal	• Coordination documentation, financial reports, progress summaries, and submission packages	**37,000**	• Consultancy fees: 30,000 • logistics costs: 7,000 USD
IE Fees (8.5% of total)		**12,750**	
Total Project Formulation Grant		150,000	

The PFG activities requested for REWaRD project will support the formulation of the full proposal at different levels, ensuring that the Executing Entity will be provided with a complete package to fast-track implementation. The activities proposed are detailed below:

1.1 Gender and Environmental and Social risk analyses and formulation of Environmental and Social Management Plan and Gender Action Plan

The Adaptation Fund requires a robust and evidence-based gender and environmental and social risk analysis, based on the list of identified sites for project interventions. For the full proposal, IFAD and MoA would like to carry out thorough data collection and analysis for gender as well as for the assessment of environmental and social risks. The risk analysis will inform the formulation of a robust Environmental and Social Management Plan and Gender Action Plan. IFAD will hire one international consultant for this assignment, a gender specialist and an environmental specialist who will work jointly. The cost of 20,000 USD includes consultancy fees for 15 days as well as fieldwork costs (DSA, rental of vehicle) for one week.

1.2 Consultancy on Rangeland ecological & degradation assessment

The assessment study and related plan will address both technical aspects (water conservation techniques, seed types, fencing and other infrastructural works, grazing schedule, etc.) and governance aspects (ownership of land, land access especially by vulnerable groups, management modalities, roles and responsibilities, enforcement mechanisms and conflict resolution procedures, etc.). The study will develop criteria that will be used by the PMU for the selection of the 10 sites. IFAD will hire consultants/companies to conduct the needed study. The following activities are foreseen to be conducted by the consultants/companies:

- Vegetation baseline dataset and maps
- Remote-sensing-based degradation maps
- Current Carrying capacity and grazing pressure analysis
- Climate vulnerability and projections
- Assessment and recommendation of methodology for rangeland restoration
- Stakeholder engagement
- Selection criteria for prioritising of rangeland restoration sites
- Final assessment report with restoration priority zones

The overall cost would be 50,000 USD divided to 40,000 USD consultancy fees and 10,000 USD for travel costs.

1.3 Consultancy on policy & institutional gap analysis

IFAD will hire national consultant for conducting policy analysis gap for the small-ruminant sector. The analysis will also cover the rangeland management. The consultant will analyse all the relevant national laws and identify the gaps in the national law. The cost would be 10,000 USD covering consultancy fees. No travel costs will be required as the consultancies will focus on systematizing available information.

1.4 Consultancy on economic and financial feasibility analysis

The economic and financial feasibility analysis will assess the viability and cost-effectiveness of the proposed activities in the concept note. The analysis will also identify financial risks, potential revenue streams, and opportunities for scaling, ensuring that the proposed interventions deliver strong adaptation benefits and are financially feasible for herders, communities, and national institutions. The overall cost would be 20,250 USD divided to 13,250 USD consultancy fees and 7,000 USD for travel costs.

1.5 Consultancy and contracts to develop the project

IFAD is requesting funds for allocation for the design of Adaptation Fund projects. The fund will be used to address the issues the Adaptation Fund raised during the review of the project concept note and that revolve around hydrology and volume of groundwater, cost benefit analysis, knowledge management. IFAD would hire 3 consultants (national and international) to improve the quality of the full proposal. The overall cost would be 37,000 USD divided to 30,000 USD covering consultancy fees and 7,000 USD covering logistics. The consultancies would be completed in time for the submission of the full proposal.

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Pierre Yves Guedez		11/20/2025	Walid Nasr		w.nasr@ifad.org

Annex 2: Stakeholder Engagement

Table 9. List of Stakeholders Consulted

Name and Gender	G	Position and Agency	Mobile/Email	Meeting Date	Format
Eng. Mohammed Al Bess	M	CEO, International Ferti-Technical Coop – Mafraq	+962 79517176	Sept 7, 2025	In-person
Mr. Mohammed Al Mershed	M	Owner, El Agwad (private sector) Quarantine services, Mafraq	+962 77780864	Sept 7, 2025	In-person
Mr. Fadi Abu Ghalyoun	M	Owner, Al Fadi Milk Factory	+962 777900010	Sept 7, 2025	In-person
Mr. Mohammad Alslehat	M	Medical Herbs farmer, Amman	+962792002435	Sept 7, 2025	In-person
Rahaf Awad Mahmoud	F	Blastic Houses	+962779566104	Sept 7, 2025	In-person
Ayshah Alhawatmeh	F	Hamsa NGO, Madaba Focus Group Discussion with community members (Mixed group of women and youth).	+962770512248 Ayshah@wisper-jo.com	Sept 7, 2025	In-person
Dr. Basel Al Saudi.	M	Agricultural Director Assistant for Tafila Directorate, MOA	+962772633862 Bal_sudi@yahoo.com	Sept 8, 2025	In-person
Eng. Ahmed Abdel Kader Al Rofu'	M	Director Assistant for Bussaira, MOA Directorate	+962 772093718 / aaabedkade@gmail.com	Sept 8, 2025	In-person
Eng. Ahmed Marryat	M	Agriculture Director for El Hasaa, Tafila, MOA	+962 777373360	Sept 8, 2025	In-person
Ma'amoun El-Adaylah.	M	Agriculture Director for Karak Directorate, MOA	+962 799059149 / manmareed@yahoo.com	Sept 8, 2025	In-person
Eng. Rasheed El Dmour,	M	Head of Livestock Department, Director Assistant, Karak, MOA	+962 799049571/ dmour.rasheed@gmail.com	Sept 8, 2025	In-person
Eng. Abdel Rahman El-Tarawna	M	Agriculture Director, Lewaa Moab, Karak, MOA	+962 798969121	Sept 8, 2025	In-person
Eng. Abdel Hameed El Balwy	M	Agriculture Director, Lewaa El Kaseer, Karak, MOA	+ 962 799028709 Tarekz72@yahoo.com /	Sept 8, 2025	In-person
Eng. Tarek Zeyad	M	Agriculture Director, Maán Directorate, MOA	+962 778336474	Sept 8, 2025	In-person
Dr. Ghassab Hatem Al Hasanat,	M	A-Hussainiya Agriculture Directorate, Maan, MOA	+ 962 776308526	Sept 8, 2025	In-person
Eng. Bassem El tawra.	M	Lewaa Al- Shobak Agriculture Directorate, Maan	+ 962 777710387	Sept 8, 2025	In-person
Eng. Thaer Odeh Al Rawajfeh.	M	Aqaba Agriculture Directorate, MOA	+962776100439/ thaer.odeh79@gmail.com	Sept 8, 2025	In-person
Eng. Abdel Allah El-Alaween.	M	Assistant Director, Head of Livestock Department, Aqaba, MOA	+962 799059153	Sept 8, 2025	In-person
Dr. Mohammed Al Habahbeh	M	Al Fujaij Breeding Station	+962 777493439	Sept 8, 2025	In-person
Eng. Baker Barakat	M	Director, Extension Services, MoA	+962 797781832	Sept 8. 2025	In-person
Dr. Sa'eb Al Khraisat.	M	H.E. The MOA Minister.		Sept 9, 2025	In-person
Eng. Mohammed Al Hyari.	M	Secretary General for the MOA Minister.	+962799028484	Sept 9, 2025	In-person

Name and Gender	G	Position and Agency	Mobile/Email	Meeting Date	Format
Mr. Murad Al Mhairat.	M	Secretary General Assistant for Financial & Managerial Affairs, MOA	+962797773900	Sept 9, 2025	In-person
Dr. Khaled Al Heissa.	M	Secretary General Assistant for Projects, MOA.	+962795427069	Sept 9, 2025	In-person
Mr. Malik Al Braizat.	M	International Cooperation Dept., Arab & Islamic Relations Division.	+962799800012/ malek.al-brezat@mop.gov.jo	Sept 9, 2025	In-person
Belal Shqarin	M	Climate Change Focal Point, MOENV	belal.shqarin@moenv.gov.jo	Sept 9, 2025	In-person
Dr. Asmaa Al-Ghazawy	F	Advisor to the Minister of Local Administration for Environment	+962 6 4641393 Asma.g@moma.gov.jo	Sept 9, 2025	In-person
Hatem Omar Hamed Abu Rumman	M	Head of International Cooperation, MOENV	+962 799181188 Hatem.aburumman@moenv.gov.jo	Sept 9, 2025	In-person
Dr. Miar Haddad	F	ICARDA	+962 799195741	Sept 9, 2025	In-person
Dr. Rana Malkawi		Focus Group Discussion with community members (Mixed group of women and youth). Mafraq	+962798714344 Ranamalkawi95@yahoo.com	Sept 9, 2025	In-person
Feras Maddalah Al Asasfeh	M	Farmer in Karak	+962 797507415	Sept 10, 2025	In-person
Abdulrahman Salem Al Maaytah	M	Farmer in Karak	+962 796328674	Sept 10, 2025	In-person
Saleh Ahmad Al Majali	M	Farmer in Karak	+962 798983117	Sept 10, 2025	In-person
Eng. Rasheed Al Dmour	M	Rangeland Karak	+962 799049571/ dmour.rasheed@gmail.com	Sept 10, 2025	In-person
Mr. Za'al Al Kawaleet.	M	Owner, Dairy Factory, Karak	+962 795289033	Sept 10, 2025	In-person
Eng. Mohammed Al Tarawneh	M	Mushairfa Breeding Station, Karak	+962 799048729	Sept 10, 2025	In-person
Dr. Samah Al Jobour.	M	Bio lab, Amman	+962 777717704	Sept 11, 2025	In-person
Hasan Al Hotheifat	M	Feed trader, Madaba.	+962 772240588	Sept 11, 2025	In-person
Eng. Mohammed Al Snaid	M	Wala Breeding Station, Madaba	+962 777969604	Sept 11, 2025	In-person
Mohammed al Ttawalba	M	SIGHT Breeding Partner	+962 772193439	Sept 11, 025	In-person
Dr. Sameer Hussien Al-Attar Mr. Anas Aitweisi	M	Senior Director of Developmental Planning and Coordination Senior Director of Financial & Administrative Affairs The Jordanian Hashemite Fund for Human Development, JOHUD	Sameer.a@johud.org.jo +962 6 5560741 Anas.al@johud.org.jo +962 6 5560741	Sept 11, 2025	In-person
Mr. Reyad Hawamleh	M	Area Manager, Islamic International Arab Bank	+962 79 9329555 Reyad.hawamleh@iiabank.com.jo	Sept 11, 2025	In-person
Heba Ababneh	F	World Food Programme (WFP)	+962 797463721 / heba.ababneh@wfp.org	Sept 14, 2025	In-person

Name and Gender	G	Position and Agency	Mobile/Email	Meeting Date	Format
Corey Fortin	M	Climate and DRR Team Leader, WFP	+962791295853 / corey.fortin@wfp.org	Sept 14, 2025	In-person
Dr. Laith Al Rahahleh	M	World Conservation Union (IUCN)	laith.alrahahleh@iucn.org	Sept 14, 2025	In-person
		Women only Focus Group Discussion Group of women beneficiaries from SIGHT project (graduation component), Amman		Sept 14, 2025	In-person
Ms. Jamilah Alabbadi		National Aid Fund	+962795814789	Sept 14, 2025	In-person
Khalaf El-Ragad	M	Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD)	+962799062616	Sept 15, 2025	In-person
Rajaa Ali	F	ACSAD	+962795298258	Sept 15, 2025	In-person
Eng. Walaa Al Zaydieh	F	Rainwater Harvesting Department, MOA	+962 779249801	Sept 15, 2025	In-person
Eng. Ahmad Al Qawabaa	M	Director, Rainwater Harvesting Department, MOA	+962798508317	Sept 15, 2025	In-person
Eng. Mohamed El-Shebly	M	Director, Rangeland Department, MOA	+962799271028	Sept 15, 2025	In-person
Eng. Rana Abo El Saada	F	Rangeland Department, MOA	+962795505929	Sept 15, 2025	In-person
 Dr. Sami Al Awabdeh Dr. Mustafa Al Shdaifat Eng. Jumana Hijazi Eng. Ahmad Al Amareen	 M M F M	National Agriculture Research Center (NARC): Director of Livestock Directorate and Focal Point for SIGHT Head of Khanassri Breeding station Head of Management Division & Coordinator of Artificial Insemination in Sheep and Goats Breeding Specialist	 +962790463731/ sami.awabdeh@gmail.com +962775623826/ m.shdaifat78@yahoo.com +962799038321/ hijazijomana@yahoo.com +962792660814/ ahmad_alathamna@yahoo.com	Sept 16, 2025	In-person
Eng. Mohammed Al Dojan Eng. Saleha Al Majali	M F	General Director, ACC. Project Department Director, ACC (Agriculture Credit Corporation)	+962799028408 . +962797866553/ salha.majali@acc.gov.jo	Sept 17, 2025	In-person
Eng. Raed Al Qatamin Eng. Murtada Al Khassawneh Mr. Rami Al Owaidat Mr. Suleiman Al Zyadat Eng. Lama Al Shamaila Eng. Rawan Al Shbailat Ms. Saja Zaid	M M M M F F F	Project Director Project Officer Training Specialist Finance Manager Livelihood Specialist M&E Specialist. Gender Officer (SIGHT Project Team)	+962 779852965 +962 788330888 +962 796805015 +962 795203777 +962 772103588 +962 779982999 +962 772344371	Sept 18, 2025	In-person

Selected Photos: