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| Project/Programme title: | Building resilience to cope with climate change in Jordan through improving water use efficiency in the agriculture sector (BRCCJ) |
| Country: | Hashemite Kingdom of Jordan |
| Accredited Entity: | United Nations Food and Agricultural Organisation (FAO) |
| Date of first submission: | *2020/04/22* |
| Date of current submission | *[2020/04/22]* |
| Version number | *[V.1]* |
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**Acronyms and definitions**

AE Accredited Entity

AFD French Agency for Development

AMA Accreditation Master Agreement

ASEZA Aqaba Special Economic Zone Authority

BH Budget Holder

BRCCJ Building Resilience to Cope with Climate Change in Jordan

CADRI Capacity for Disaster Reduction Initiative (CADRI)

CC Climate Change

CCA Climate Change Adaptation

CCCC Coordination Commission on Climate Change

CFC Climate Financing Centre

CSO Civil Society Organizations

CTA Chief Technical Adviser

CWW Climate Wise Women

DRR Disaster Risk Reduction

EE Executing Entity

ESA Environmental and Social Analysis

ESMF Environmental and Social Management Framework

ESMP Environmental and Social Management Plan

ESS Environmental and Social Safeguards

FAO Food and Agriculture Organization of the UN

FFS Farmer Field Schools

FNC Fourth National Communication

GAM. Municipality of Greater Amman

GAP Gender Action Plan

GCF Green Climate Fund

GDP Gross Domestic Product

GEF Global Environment Facility

GGI Global Green Growth Institute

GHG Greenhouse Gas Emissions

GIZ *Deutsche Gesellschaft für Internationale Zusammenarbeit*

GPS Global Positioning System

GRMS Global Resources Management System

HU Hashemite University

ICARDA International Centre for Agriculture in the Dry Lands

ICT4CA Information Communication Technology for Climate Adaptation

IFAD International Fund for Agricultural Development

INDC Intended Nationally Determined Contribution

INDC Intended Nationally Determined Contribution (INDC)

JGBC Jordan Green Building Council

JMD Jordan Metrological Department

JUST Jordan University of Science and Technology

M&E Monitoring and Evaluation

MOA Ministry of Agriculture

MoE Ministry of Environment

MoPIC Ministry of Planning and International Cooperation (MoPIC)

MoSD. Ministry of Social Development

MoTA. Ministry of Tourism and Antiquities

MoU Memorandum of Understanding

MWI Ministry of Water and Irrigation

NAMA National Appropriate Mitigation Actions

NAP National Adaptation Plan

NAP National Adaptation Plan

NARC National Agriculture Research Centre

NCCC National Climate Change Committee

NDA National Designated Authority

NGO Non-governmental Organization

ND-GAIN Notre Dame Global Adaptation Initiative

NPV Net Present Values

NRM Natural Resource Management

OPA Operational Partners Agreement

OPIM Operational Partners Implementation Modality

PDTRA Petra Development and Tourism Region Authority

PMF Performance Management Framework

PMU Project Management Unit

RCP Representative Concentration Pathways

RNE Regional Office for Near East

RSS Royal Jordanian Scientific Society

SCCF Special Climate Change Fund

SDG Sustainable Development Goals

TA Technical assistance

TNC Third National Communication

TORs Terms of Service

TWG-A Technical Working Group - Adaptation

UN United Nations

UNCCD UN Convention to Combat Desertification

UNDAF United Nations Development Assistance Framework

UNDP United Nations Development Programme

UNFCCC UN Framework Convention on Climate Change

USD United States dollar

WAJ Water Authority of Jordan

WSPL Water Sector Policy Loan

**Contents**

Section A **PROJECT / PROGRAMME** **SUMMARY**

Section B [**PROJECT / PROGRAMME INFORMATION**](#SectionB)

Section C **FINANCING INFORMATION**

Section D **EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA**

Section E **LOGICAL FRAMEWORK**

Section F **RISK ASSESSMENT AND MANAGEMENT**

Section G[**GCF POLICIES**](#SectionD) **AND STANDARDS**

Section H [**ANN**](#SectionE)**EXES**

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| *Note to Accredited Entities on the use of the funding proposal template* |
| * Accredited Entities should provide summary information in the proposal with cross-reference to annexes such as feasibility studies, gender action plan, term sheet, etc. * Accredited Entities should ensure that annexes provided are consistent with the details provided in the funding proposal. Updates to the funding proposal and/or annexes must be reflected in all relevant documents. * The total number of pages for the funding proposal (excluding annexes) **should not exceed 60**. Proposals exceeding the prescribed length will not be assessed within the usual service standard time. * The recommended font is Arial, size 11. * Under the [GCF Information Disclosure Policy](https://www.greenclimate.fund/disclosure/policy), project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Accredited Entities are asked to fill out information on disclosure in section G.4. |

Please submit the completed proposal to:

[fundingproposal@gcfund.org](mailto:fundingproposal@gcfund.org)

Please use the following name convention for the file name:

“FP-[Accredited Entity Short Name]-[Country/Region]-[YYYY/MM/DD]”

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| **PROJECT/PROGRAMME SUMMARY** | | | | | |
| **A.1. Project or programme** | Project | **A.2. Public or private sector** | | Public | |  |
| **A.3. Request for Proposals (RFP)** | Not applicable | | | | |  |
| **A.4. Result area(s)** | *Check the applicable* [*GCF result area(s)*](https://www.greenclimate.fund/how-we-work/funding-projects) *that the overall proposed project/programme targets. For each checked result area(s), indicate the estimated percentage of GCF budget devoted to it. The total of the percentages when summed should be 100%.* | | | | |
| Mitigation: Reduced emissions from:  Energy access and power generation:  Low-emission transport:  Buildings, cities, industries and appliances:  Forestry and land use:  Adaptation: Increased resilience of:  Most vulnerable people, communities and regions:  Health and well-being, and food and water security:  Infrastructure and built environment:  Ecosystem and ecosystem services: | | | | GCF contribution:  Enter number%  Enter number%  Enter number%  Enter number%  19%  81%  Enter number%  Enter number% |
| **A.5. Expected mitigation impact** | ***NA*** | **A.6. Expected adaptation impact** | | ***212,416*** *Direct and Indirect Beneficiaries including 47% women* | |
| ***2.1% of country population and 10% of target Governorates population*** | |
| **A.7. Total financing (GCF + co-finance)** | 33.25 USD million | **A.9. Project size** | | Small (Upto USD 50 million) | |
| **A.8. Total GCF funding requested** | 25 USD  million |
| **A.10. Financial instrument(s) requested for the GCF funding** | *Mark all that apply and provide total amounts. The sum of all total amounts should be consistent with A.8.* | | | | |
| Grant 25 million  Loan Enter number  Guarantee Enter number | | Equity Enter number  Results-based  payment Enter number | | |
| **A.11. Implementation period** | *7 years.* | **A.12. Total lifespan** | | *30 years* | |
| **A.13. Expected date of AE internal approval** | *4/20/2020* | **A.14. ESS category** | | B | |
| **A.15. Has this FP been submitted as a CN before?** | Yes  No | **A.16. Has Readiness or PPF support been used to prepare this FP?** | | Yes  No | |
| **A.17. Is this FP included in the entity work programme?** | Yes  No | **A.18. Is this FP included in the country programme? [[1]](#footnote-1)** | | Yes  No | |
| **A.19. Complementarity and coherence** | *Does the project complement other climate finance funding (e.g. GEF, AF, CIF, etc.)? If yes, please elaborate in section B.1.*  Yes  No | | | | |
| **A.20. Executing Entity information** | 1. Food and Agriculture Organization (FAO)  2. United Nations Development Programme (UNDP)  3. Ministry of Water and Irrigation (MWI)  4. Ministry of Agriculture (MoA)  5. Ministry of Environment-(MoE) the Nationally Designated Authority (NDA)  (Details of outputs / activities by each in C.2 and details per activity in E.6)[[2]](#footnote-2) | | | | |
| **A.21. Executive summary (max. 750 words, approximately 1.5 pages)** | | | | | |
| 1. ***Climate Change Risks****:* Jordan is facing severe climate change risks and business as usual will no longer suffice in addressing the challenges the country faces to its development and growth. Jordanis one of the most water scarce countries in the world and climate change is further exacerbating aridity due to increasing temperatures and reduced / more erratic rainfall patterns coupled with an unprecedented population increase due to both natural growth and refugee influx. In addition, climate change induced hazards such as droughts, extreme temperatures and flash floods, have almost tripled in Jordan since the 1980s, compared to a doubling worldwide, exposing the population to loss of life, livelihoods and property. Such combination is having one of the most important role in the variation on availability of water resources, water demand for agriculture and domestic purpose and existence of agriculture. Therefore, some sectors such as water and agriculture - where 61% of the cultivated land is rainfed – are the most vulnerable especially in rural areas where adaptation deficit is the highest. 2. ***Key Challenges:*** Jordan’s economy and society have faced significant shocks in the past few years due to the regional conflicts in Syria and Iraq, the country’s main trading partners which disrupted Jordan’s trade routes and capital inflows. The Syrian refugee crisis put considerable pressure on the country’s economic, physical and social infrastructure. As a result, the country’s macro-economic indicators weakened, the fiscal deficit rose, and financing many key priorities became very difficult. The latest crisis and lockdown due to the carona pandemic in the country since March, 2020 is likely to be a major setback which will put considerable pressure on the limited resources of the country and impact its revenue sources. 3. ***Proposed Intervention*:** Given the exposure and adaptation deficit reported by the country in its Third National Communication to the UN Framework Convention on Climate Change (UNFCCC) and in the National Adaptation Plan, four Governorates in the Dead Sea Basin namely Karak, Madaba, Talifah and Maan have been selected for project interventions as these represent the areas that is considered as the most vulnerable. These Governorates host 840,900 inhabitants who are the most vulnerable in the country to climate change due to the high dependency on rainfed agriculture, poverty rate of rural population, and high climate change adaptation deficit. The goal of the seven-year project titled “Building resilience to cope with climate change in Jordan through improving water use efficiency in the agriculture sector (BRCCJ)” is increased climate resilient sustainable development in the country. In line with the objectives of the climate change policy (2013-2020) and the National Adaptation Plan (2020) the project is designed to increase the resilience to climate change of water management systems and the agricultural sector. The project will have three interrelated components which will work synergistically to address key barriers and enhance the impact of project investments. The components are designed to deal with the lack of *infrastructure*, limited capacity of *rural farming households* and weak *institutional* capacity. They include; (i) Component 1: Climate Resilient Water Systems; (ii) Component 2: Climate Change resilience for Enhanced Livelihoods and Food Security; and (iii) Component 3: Scaling-up climate adaptation. Coherently with identified lesson learned in Jordan as well as with the GCF Gender guidelines, the project builds on the idea of inclusion of women as change agents for climate adaptation. 4. The project will be executed jointly by FAO, UNDP, Ministry of Environment (MoE), Ministry of Agriculture (MoA), Ministry of Water and Irrigation (MWI) indicating the strong collaborative and partnership approach which will be adopted during the implementation of the project. The project will capitalise on the strong experience and convening power that both FAO and UNDP have established in the country. UNDP’s experience on working on climate change and drought management projects in the country make it a valued partneoject builds on the established institutional arrangements in the country which serve to high light the climate change agenda such as the National Climate Change Coordination Committee (NCCC) and the Working Group on Climate Adaptation. 5. The *Project is the first and only country specific project which the Ministry of Environment (MoE) has included in the GCF country portfolio for submission during the first replenishment period of the GCF (2020-23).* The investment is expected to reach 212,416 people including 47% women.An analysis of the value for money metrics of the Project shows that the project investment is highly justified based on both financial and economic analysis. The project investments have an Economic Internal Rate of Return of 24.1.%. The Net Present Value was estimated to be US$ 80.16 million with a benefit- cost ratio of 2.95. The project is expected to achieve 3% to 3.5% reduction in groundwater overdraft and to contribute up to 4.5% to the water management goals in the National Water Strategy. Cumulative water savings are estimated at around 1.83 million cubic meters (mcm) in a 10-year period and 5.49 mcm for the project´s lifespan. Although in absolute terms, this seems low compared to the overall water budget, it is substantial at the individual use level. In addition, 10,600 hectares of agricultural land area will be made more resilient with climate-adaptive measures in the project area. 6. Total project costs are estimated to be US$ 33.25 million. This project is based on a request for a grant from the GCF of USD 25 million (75% of total project cost). The Government of Jordan is committed to providing US$ 6.2 million (19%), and FAO and UNDP will co-finance USD 2.06 million (1 million and 1.06 million respectively, representing 6% of total costs). The beneficiaries are expected to provide USD 4.6 million for investments at the household level. | | | | | |

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| B.PROJECT/PROGRAMME INFORMATION |
| **B.1. Climate context (max. 1000 words, approximately 2 pages)** |
| 1. The Hashemite Kingdom of Jordanis one of the most water scarce countries in the world. Water scarcity is driven primarily by the arid to semi-arid climatic regime as 92% of the country receives average precipitation of 135 mm/year [[WB, 2020](https://climateknowledgeportal.worldbank.org/country/jordan); [GoJ, 2015](http://www.mwi.gov.jo/sites/en-us/Hot%20Issues/%20Strategic%20Documents%20of%20%20The%20Water%20Sector/National%20Water%20%20Strategy(%202016-2025)-25.2.2016.pdf)]. The average annual air temperature in the country is 18.6C°, ranging from 13°C in the Southern Badia to 28°C in Aqaba. The maximum temperature is distributed almost uniformly in the whole country and corresponds to an average of 25.3°C (Annex 2, pages 19🡪23). The vulnerability of the country to climate risks has been aggravated, in the last decade, by more erratic rainfall patterns, increased temperatures and an unprecedented population increase due to both natural growth and refugee influx [[FAO 2018](http://www.fao.org/3/i8601en/I8601EN.pdf)].. Jordan has a ND-GAIN[[3]](#footnote-3) index ranking of 85 out of 181 countries for climate vulnerability. After some years of slight and constant improvement, especially from 1995 to 2008, when the ranking improved from initially 72 to 64, the ranking decreased again significantly, to the current 85 [[NDGAIN, 2019](https://gain.nd.edu/our-work/country-index/)]. Jordan is facing severe climate change risks and business as usual will no longer suffice in addressing the challenges the country faces to its development and growth. Climate change has exacerbated the water scarcity in the country which impacts both rural and urban households and can negatively impact their safety and health, livelihoods, and sustainable development in the country. [[FAO, 2018](http://www.fao.org/3/i8601en/I8601EN.pdf)]. 2. Reportedly [[WB, 2020](https://climateknowledgeportal.worldbank.org/country/jordan); [GoNL, 2019](https://www.government.nl/binaries/government/documents/publications/2019/02/05/climate-change-profiles/Jordan.pdf); [USAID, 2017](https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID_Climate%20Change%20Risk%20Profile_Jordan.pdf); [UNFCCC, 2014](https://unfccc.int/resource/docs/natc/jornc3.pdf); [FAO, 2020](https://beta.earthmap.org/)] climate change has already impacted Jordan: annual maximum and minimum temperature have increased by 0.3-1.8°C and 0.4-2.8°C, respectively, since the 1960s. Both Mann-Kendall rank trend test and linear regression trends indicate that the mean, maximum and minimum air temperature tends to increase significantly by 0.02, 0.01, and 0.03 °C/year, respectively and annual precipitation tends to decrease significantly over time at a rate of 1.2 mm per year until 2100.[[4]](#footnote-4) Rainfall shows decreases at most meteorological stations indicating a drop from 94 mm to 80 mm during the last 10 years and a 2.92 mm/month per century reduction in average annual participation since 1900. Data from remote sensing analysis[[5]](#footnote-5) [[FAO, 2020](https://beta.earthmap.org/)] covering the period 1979-2019 confirm available trends for both temperature and rainfall, highlighting also that rainfall is not only reduced but its patterns are now more erratic across the year (Annex 2, page 21). Renewable water recharge capacity have been exacerbated by climate change. According to FAO, around 65% of the renewable water resources of the country come from surface water and run-off stored in ravines or wadis [[FAO, 2018](http://www.fao.org/3/i8601en/I8601EN.pdf)]. In 2015, the Ministry of Water and Irrigation (MWI) estimated water availability to be 1,008 million cubic meters (MCM), and water demand 1,222 MCM with a deficit of 214 MCM. As reported in literature [[USAID, 2017](https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID_Climate%20Change%20Risk%20Profile_Jordan.pdf)] and confirmed by the Ministry of Water and Irrigation in the “Water for Life; Jordan Water Strategy 2008-2022”, water availability per capita was 3600 m³/year in 1946, but fell to 145 m³/year by 2008 with a current of 93 m³/year in 2020. 3. The analysis undertaken as part of the country capacity to adapt estimates the following impact on the agriculture sector; Agriculture which is (mostly rainfed) will be negatively affected due to reduction of chilling time (predicted to be insufficient for fruits already in 2024 [[WB, 2013](https://openknowledge.worldbank.org/bitstream/handle/10986/13123/763670PUB0EPI0001300PUBDATE03021013.pdf?sequence=1&isAllowed=y)]), reduced water availability during farming operations (about 30 days longer dry season [[UNFCCC, 2014](https://unfccc.int/resource/docs/natc/jornc3.pdf)]) against a steadily increasing evapotranspiration (increase up to 5.32% evaporation for the period 2013-2030 [[Quatarneh, 2018](https://link.springer.com/article/10.1007/s13201-018-0687-9)]). Field crops, such as wheat and barley, are highly sensitive to climate change impacts driven by the reduction in time available for assimilation of dry matter and lower water availability [[Al-Bakri, 2010](http://www.ukm.my/ipi/wp-content/uploads/2013/07/22.2010Potential-impact-of-climate-change-on-rainfed-agriculture-of-a-semi-arid.pdf)]. It is projected that there will be a decrease in yield varying from 7% to 21% for wheat and from 18% to 35% for barley due to shorter duration of crop growth. In terms of olive and olive oil production (one of the most diffuse commodity in Jordan), the potential decrease in yield derived from climate change impacts varies from 5% to 10% with high evidence on the oil quality reduction [[UNDP-GEF, 2014](https://www.undp.org/content/dam/jordan/docs/Publications/Enviro/climate-changet-from%20batir%20smaller%20version.pdf)]. 4. For many vegetable crops, high temperatures may decrease quality parameters, such as size, soluble solids and tenderness. It is anticipated that a 1°C or 2°C increase in temperature will decrease vegetables yield by 5 and 10%, respectively [[FAO, 2012](http://www.fao.org/3/ca1156en/CA1156EN.pdf), [UNFCCC, 2014](https://unfccc.int/resource/docs/natc/jornc3.pdf); GoJ-NAP, 2020[[6]](#footnote-6)]. Similarly, orchards are highly sensitive to climate change with adverse impacts of temperature increase such as less flower bud induction, higher fruit drop, faster volume growth of fruit, earlier maturation, less total soluble solids and fruit reaches insipid and dry states earlier. In terms of rangelands, vegetation change will probably be more closely coupled to changes in soil resources than to immediate physiological responses of plants to CO2 concentration or temperature. The increase in evapotranspiration (ET) rate and decrease in precipitation in drier systems such as the arid and semiarid rangelands of Jordan would reduce productivity [[UNFCCC, 2014](https://unfccc.int/resource/docs/natc/jornc3.pdf)]. 5. According to all scenarios in the Representative Concentration Pathways (RCP) the described climate change adverse trends will further deteriorate. Reportedly, [[WB, 2020](https://climateknowledgeportal.worldbank.org/country/jordan); [GoNL, 2019](https://www.government.nl/binaries/government/documents/publications/2019/02/05/climate-change-profiles/Jordan.pdf); [USAID, 2017](https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID_Climate%20Change%20Risk%20Profile_Jordan.pdf); [UNFCCC, 2014](https://unfccc.int/resource/docs/natc/jornc3.pdf); [FAO, 2020](https://beta.earthmap.org/)], it is extremely likely that Jordan will experience in the 2030-2100 period (relative to the 1980-2010 period) the following: (I) Average temperature increase up to +2.1 °C [+1.7 °C to +3.2°C] (RCP 4.5) and +4°C [+3.8 to +5.5] (RCP8.5); and (II) cumulated precipitation decrease between 15% (- 6% to 25%) (RCP 4.5) and 21% (9% to - 35%) (RCP 8.5). The temperature increase will result in increased evaporation and this, combined with decreased rainfall, will result in less recharge and therefore less replenishment of surface water and groundwater reserves. Standardized precipitation indexes indicate that Jordan will experience more drought events especially in winter and spring [[UNFCCC, 2014](https://unfccc.int/resource/docs/natc/jornc3.pdf)]. The reduced precipitation levels, temperature increase, drought/dry days and projected evaporation and the delivery of rainfall in shorter and more intense periods are likely to be the cause of main future climate hazards in the country [[UNFCCC, 2014](https://unfccc.int/resource/docs/natc/jornc3.pdf)].Therefore, existing water scarcity in Jordan will worsen due to climate change. National policies [GoJ-NAP; 2020; [Combaz, 2019](https://assets.publishing.service.gov.uk/media/5d30a131ed915d2ff003b781/619__Jordan_Environment_Policies_and_Engagemt.pdf); [GIZ, 2015](https://www.greengrowthknowledge.org/sites/default/files/downloads/policy-database/JORDAN)%20Climate%20Change%20Governance%20in%20Jordan%20-%20Towards%20Policy%20and%20Institutional%20Coordination.pdf); [MoE, 2013](https://globalnaps.org/wp-content/uploads/2018/08/climate-change-policy-of-jordan.pdf)] and research, recognize the water and agriculture sectors as extremely vulnerable to climate change due to high sensitivity, exposure, and low adaptation capacities. In the long-term, this is likely to cause serious soil degradation that could lead to desertification and worsening the situation of the agriculture sector due to the lack of sufficient water. The Third National Communication and the NAP attest that the agricultural sector has a relatively low adaptive capacity, given that most of the current land utilized for production is rain-fed, which is more exposed to climate change and to the fact that most planned and needed adaptation measures require investments that neither the state nor the private sector can currently afford (Annex 3 pages 39🡪42). Access to finance is difficult for farmers to secure because of the perceived risk inherent in agriculture incomes and the collateral requirements which most households are unable to meet. 6. The average occurrence of climate change induced hazards has almost tripled in Jordan since the 1980s, compared to a doubling worldwide Floods and droughts both present major risks. In winter, heavy rains can cause serious flooding and landslides. Incidents of flooding are common in Jordan and can be very damaging as most are flash floods. Flooding often follows heavy rainfall events during the winter. Floods in Jordan claim lives, and destroy agricultural land and infrastructure. Increased productivity and economic development in rural areas with lack of preventing planning and zoning often leads to a higher concentration of people and valuable estates (infrastructures and production sites) in areas at risk along rivers, valleys and in flood plains [(World Bank, 2018)](https://climateknowledgeportal.worldbank.org/country/jordan/vulnerability). In terms of drought, several studies have shown the increase incidence of drought events in Jordan. Literature indicates that the country will face frequent non-uniform drought periods in an irregular repetitive manner [GoJ-NAP, 2020] while the World Bank estimated that Jordan has already developed perennial drought conditions [[WB, 2014](http://documents.worldbank.org/curated/en/211811468106752534/pdf/816580WP0REPLA0140same0box00PUBLIC0.pdf)]. Drought severity, magnitudes and lifespan will increase with time shifting from normal to extreme levels. These droughts will negatively impact the Jordanian agriculture system [[A-Quinna, 2010](https://www.researchgate.net/publication/228755464_Drought_analysis_in_Jordan_under_current_and_future_climates); [Saba, 2013 -2018](https://www.unescwa.org/events/eighth-scientific-agricultural-conference-esac-2018)]. Flash flooding has historically caused damages to local tourist infrastructure, archaeological sites and urban infrastructures [[Alhasanat, 2017](https://usir.salford.ac.uk/id/eprint/44382/1/Salford%20University%20Final%20PhD%20Thesis%20Hussein%20Alhasanat%20November%202017.pdf)]. Incidents of flash flooding in Jordan have claimed the lives of hundreds and affected the lives and livelihoods of thousands. In the past half century, floods have taken of 345 persons and affected 24,321 lives. Additionally, floods usually leave vast agricultural areas covered with water [[Alhasanat, 2017](https://usir.salford.ac.uk/id/eprint/44382/1/Salford%20University%20Final%20PhD%20Thesis%20Hussein%20Alhasanat%20November%202017.pdf)]. Episodes of drought are increasing with a frequency of 2.43 per 10 years. [[WB, 2020](https://climateknowledgeportal.worldbank.org/country/jordan/climate-data-projections.), [GFDRR, 2020](http://thinkhazard.org/en/report/130-jordan/FL); [CRI, 2020](https://germanwatch.org/sites/germanwatch.org/files/20-2-01e%20Global%20Climate%20Risk%20Index%202020_14.pdf); [WFP, 2019](http://thinkhazard.org/en/report/130-jordan/FL); [UNDP, 2019](https://www.jo.undp.org/content/jordan/en/home/library/NationalNaturalDisasterRiskReductionStrategy.html)]. 7. Reported adverse trends and projections for temperature and precipitation are particularly evident in the Dead Sea Basin where the volume of precipitation has decreased by up to 20% (1901-2019) [[GoNL, 2019](https://www.government.nl/binaries/government/documents/publications/2019/02/05/climate-change-profiles/Jordan.pdf)] and become erratic with rainfall concentrated in a few months (January/February) rather than distributed more evenly along the seasons [[FAO, 2020](https://beta.earthmap.org/); [UNFCCC, 2014](https://unfccc.int/resource/docs/natc/jornc3.pdf)]. Already groundwater in the six main basins is declining at an average annual rate of approximately one meter per year [[Daniel, 2013](https://pubs.usgs.gov/of/2013/1061/support/ofr2013-1061.pdf)] while the most recent assessment of water scarcity and drought risk under climate change, based on a large ensemble of climate model outputs, suggests that the increase in the frequency and duration of meteorological droughts will be larger for the Dead sea basin than for basins located in the north of the country [[Rajsekhar, 2017](https://advances.sciencemag.org/content/3/8/e1700581)]. The Dead Sea Basin covers four of the 15 sub-basins in the country. This, combined with poverty has contributed to the overall increase in vulnerability in the region. The Dead Sea basin has an average temperature fluctuating between 16C° and 21 C°, with average minimum temperature ranging from <7C° to 18C°. Climate change projections (utilizing the models CSIROMK3, ECHAM5OM, HADGEM1) of the Dead Sea basin indicate a possible increase in air temperature of +1°C by 2030 and of +2°C by 2050, with a significant precipitation decline from -5% to -10% by 2030 and -10% to -20% by 2050 [[Al-Bakri, 2013](https://www.mdpi.com/2071-1050/5/2/724/pdf)]. Water deficit in 2015 in the Dead Sea basin was reported to be 33 million m3 (MCM), given its safe yield of 57 mcm and a total water extraction of 90 mcm, which represented one of the highest relative deficits of all basins (58% of the safe yield) [[FAO. 2018](http://www.fao.org/3/i8601en/I8601EN.pdf)]. 8. Given the reported exposure, vulnerability and adaptation deficit of rural communities as well as the distribution of international aid across the country (mostly concentrated in the northern governorates due to higher concentration of refugees from Syria and Iraq), stakeholders consulted during the national engagement process led by the NDA and FAO identified the Dead Sea Basin as one of the most vulnerable areas and selected it for climate adaptation (Annex 2, pages 38🡪51). Within the basin, the project will be executed in the Governorates of Karak, Madaba, Tafilah and Maan[[7]](#footnote-7). The climate change risks and related adverse impacts in the governorates are related to an increase in average maximum and minimum temperature and a decrease in precipitations with more erratic distribution patterns [[FAO, 2020](https://beta.earthmap.org/)]. 9. The four Governorates host 840,900 inhabitants (about 9% of the total population) that are the most vulnerable in the country to climate change due to the high dependency on rainfed agriculture, poverty rates in rural areas and high climate change adaptation deficit (Annex 15 provides maps of the project area). Additionally, the share of the rural population in the four Governorates is significantly higher than the average national rate of 9.7%, ranging from 22% in Madaba to 46% in Ma'an. Poverty in rural areas is more recurrent than in urban areas and on a national level 19% of the rural population is classified as poor [[WB, 2018](http://documents.worldbank.org/curated/en/469111551866278210/Jordan-Household-Expenditure-and-Income-Survey-2017-18-Completion-Notehttp:/documents.worldbank.org/curated/en/469111551866278210/Jordan-Household-Expenditure-and-Income-Survey-2017-18-Completion-Note)]. Further, 10 of the 27 rural poverty pockets[[8]](#footnote-8) of the country are present in the target governorates: 6 in Ma'an, 3 in Karak and 1 in Tafilah [[UNDP,](https://www.undp.org/content/dam/jordan/docs/Poverty/Jordanpovertyreductionstrategy.pdf) 2013; [WB, 2018](http://documents.worldbank.org/curated/en/469111551866278210/Jordan-Household-Expenditure-and-Income-Survey-2017-18-Completion-Notehttp:/documents.worldbank.org/curated/en/469111551866278210/Jordan-Household-Expenditure-and-Income-Survey-2017-18-Completion-Note)]. Those employed in the agricultural sector are furthermore poorer than the ones working in other sectors. Smallholders that are dependent on rain fed areas are especially vulnerable to irregular rainfall patterns, reduction in precipitation and the increasing frequency of droughts [[FAO, 2018](http://www.fao.org/3/i8601en/I8601EN.pdf)]). 10. Jordan has displayed strong ownership and commitment to changing the business as usual scenario. Since 2013 when the first National Climate Change Policy was developed, the policy framework for adaptation in Jordan took a rapid expansion in scope. Jordan has developed several key policies and strategic documents with regards to climate change. These include: (i) the National Climate Change Policy (2013) (ii) the Third National Communication to the UNFCCC including downscaling climate projections for the first time in Jordan (2014); and (iii) its Intended Nationally Determined Contribution (2015) and the National Adaptation Plan (2020). These reaffirm the Government’s priorities to bringing about transformative change; the activities in the current project are drawn from its key priorities. The Government has constituted a National Committee on Climate Change (NCCC) with the participation of key stakeholders to oversee the process. Several readiness activities have been approved as part of the GCF country programme in Jordan. Nonetheless, although Jordan plays an active role in the climate change international fora and the country is now accredited with important climate funds such as the Adaptation Fund [[AF, 2020](https://www.adaptation-fund.org/apply-funding/implementing-entities/national-implementing-entity/)], Jordan’s efforts on climate change, including on water and agriculture, have remained, limited in ambition and action due to – among other – to the following: (I) Climate action is severely under-funded, and adaptation requires large and long lasting investments; (II) The issue is not viewed as a priority (compared to e.g. employment), in part due to a lack of understanding of its implications and costs and of the benefits of action; (III) Lack of unified policy framework with fragmented plans and institutions that lack consistency, comprehensiveness, links, and common purpose; (III) Limited application of adopted policies in specific sectors such as water and agriculture; and (IV) Lack of technical skills and resources as additional barriers to implementing projects in the agriculture and water projects[[9]](#footnote-9). 11. Through the Intended Nationally Determined Contribution [I[NDC, 2015](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Jordan%20First/Jordan%20INDCs%20Final.pdf)] and the National Adaptation Plan (NAP, 2020), the Government has prioritized a number of priority interventions to adapt to climate change. These include improving water use efficiency; promote water harvesting techniques (rainfall and surface including floods); promoting the use of non-conventional water sources (i.e. reclaimed water);rainwater harvesting from rooftops; constructing micro-dams for supplementary irrigation for small farms and decreasing the reliance on groundwater; promoting use of treated wastewater in irrigation; establishing of sea water desalination units and using treated water in agriculture; and raising the awareness on Climate Smart Agriculture, soil conservation; increasing the efficiency of irrigation systems and introducing water saving technologies such as drip irrigation and hydroponic; modifying cropping patterns and crop calendars and using drought tolerant crop varieties; increasing farmers’ incomes through crop diversification, etc. There is a strong focus in Government plans on developing a gender sensitive adaptation plan given that climate change is expected to exacerbate current gender inequalities. It is expected that depletion of natural resources and decreasing agricultural productivity may place additional burdens on women’s health and reduce time available to participate in decision making processes and income generating activities. Therefore, promoting gender equality and empower women is a necessary program in climate change adaptation plan. The Government however, does not have the resources to undertake the activities and investments required to help it adapt to climate change. 12. There are a host of projects designed to assist the country to deal with issues of climate change being implemented by UN agencies. Some key projects include those being implemented by the UNFCCC-Adaptation Fund which pilots innovative technology transfer and policy support. FAO and UNDP both have on-going projects which are making investments in the area of climate change adaptation through the MADAD project, investments in aquaponic and hydroponics, etc. UNDP is assisting the Government with developing plans for drought management. The United Nation Development Programme (UNDP) launched an "Early Warning System for Flash Floods" in Petra and Wadi Mousa as part of SDC support to the Petra Development and Tourism Region Authority (PDTRA) to mainstream Disaster Risk Reduction (DRR) capacities in local development initiatives. The Adaptation Fund of the UNFCCC (2016-2020) is investing USD 9.2 million in substitution of fresh water with wastewater for specific purposes. It is also assisting in developing and testing innovative solutions to implement participatory water management. WHO has invested in [climate change adaptation to protect human health](https://www.who.int/globalchange/projects/adaptation/en/index5.html) (2010-2014) financed by the GEF SCCF fund. 13. There are several other donors undertaking investments in the area of adaptation in the country which will complement the project efforts. IFAD collaborated with the National Agriculture Research Center (NARC) with funds from GEF (2014-2018) for investments in irrigation technology to face climate change. IFAD is investing (2021- 2025) USD 15.2 to integrate climate resilient agriculture in selected value chains. AFD and KFW are investing Euro 450 million in a Water Sector Policy Loan which includes diffusion of water harvesting and distribution technology. AFD and KFW are currently carrying out the second phase of the [Water Sector Policy Loan (WSPL)](https://www.kfw-entwicklungsbank.de/PDF/Evaluierung/Ergebnisse-und-Publikationen/PDF-Dokumente-E-K_EN/Jordanien_WSPL_2019_E.pdf). GIZ is investing USD 2 million for removing barriers to Climate Change Adaptation in the water and agriculture sector. USAID has invested in policy reforms for the water companies that increased cost recovery and the installation of wastewater treatment plants that supply reclaimed water for the agriculture sector. However, most of the donors efforts are being implemented in the Jordan Valley and in the northern governorates (Annex 2, pages 76🡪79). |

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| **B.2. Theory of change (max. 1000 words, approximately 2 pages plus diagram)** |
| 1. The key barriers in adapting to climate change in the country stem from constraints at the institutional, household and policy level. Government resources and capacity to invest in the water sector are limited with little strategic thinking on how best to address some of the climate induced adverse impacts such as decline in ground water recharge, stream flow reduction, increase in droughts and floods, and increased temperatures. The NAP also identified general weaknesses in public policy and public finance management and weakly defined institutional roles and remits that affect governance and limit the implementation of identified priorities and ensure compliance of existing regulation. At the household level the key barriers include the limited capacity to invest in addressing climate induced water scarcity in the water and agriculture sectors as well as the lack of knowledge on climate change issues and dynamics. There is limited knowledge and awareness of the farmers about how to best adapt farming practices to reduced and uncertain precipitation and increase in temperatures and lack of awareness about the range of technologies and practices that can help them become more resilient. The government extension staff have limited outreach and excessive reliance on traditional extension approaches and lack of update knowledge of the range of technologies available for climate adaptation. There is limited use of information communication technology (ICT) to disseminate information that can help in adaptation. Due to social and economic barriers women do not have access to the knowledge, services and resources that can build their resilience to climate risks, women are seldom consulted or involved in key decision although they play an important role in managing key sectors which are impacted by climate risks. 2. An underlying cross-cutting approach of the project, based on the lessons outlined in the NAP, will be to engage people in field experience on climate change adaptation, in order to break down some of the barriers that exist around understanding the implications of climate change for their lives, ultimately leading to changes in behavior leading to a society and economy that is better prepared for climate change and its impacts. Another key constraint identified in consultations held at various levels in the country during the NAP process is the limited interest and engagement of the private sector in supplying the full range of inputs and technologies that exist for adaptation. While the private sector has been providing some water efficient technologies such as drip and sprinkler irrigation systems and equipment for renewable energy, they could be more actively engaged and it appears that there are several barriers that inhibit their role which include lack of demand and a well-developed for the full range of adaptation technologies, market, lack of an enabling environment and market conditions and changing regulations which increase the risk for the private sector (NAP, 2020) or distortive policies such as those in place for water and grains subsidies. The private sector is however gaining increased awareness of the benefits in engaging in climate-related investment opportunities. 3. Based on these barriers a set of interventions were selected which were accorded the highest priority based on the multi-criteria decision analysis adopted under the NAP process that ranked and weighted them based on relevance, feasibility, sustainability and transfer potential (NAP, 2020). The project interventions were grouped into three components which represent the pathways designed to address key barriers to climate change adaptation. The theory of change of the current project is premised on the evidence that there these pathways can help the country address climate change risks. The project components are designed to reflect these pathways and ensure long-term sustainable change in the country. The theory of change of the project builds on the considerable evidence that FAO and other development partners (e.g. UNDP, IFAD, the World Bank, USAID, GIZ) have established from its investments across several regions and countries that investments in infrastructure, farming households and institutions represent a powerful means to address the specific constraints in the project area as well as scale-up and replicate the innovations introduced by the project to the rest of the country. The project is designed to assist the country work at the national, community and household level in bringing about a paradigm shift in how scarce water resources are harvested, planned for and sustainably used in agriculture and at the household level. The following sections and the diagram below illustrate the underlying theory of change. 4. ***Investments in infrastructure and technical capacity for planning at the level of the hydrological basin for more strategic investments***; The country will have to invest in enabling its institutions and people make a significant shift in their approach and behavior patterns. Government can assist local communities better adapt to the risk of climate change if they are supported by (i) investments in infrastructure such as roof top water harvesting and use of reclaimed water to address the immediate problems of water scarcity in the project area; (ii) these investments can also be used as an entry point for sustainable behavior change if accompanied by awareness about climate risks and water scarcity which will be provided through an NGO recruited to enhance awareness at both the household and in public institutions especially schools and hospitals; and (iii) engagement of the private sector in the process can help them realize the market opportunity to scale-up the sale of more cost-effective and efficient technologies for water harvesting and optimization of water use such as water saving technologies and gadgets for both domestic and on-farm use. The project theory further postulates that building technical capacity of the Ministry of Water and Irrigation (MWI) for planning at the landscape level can assist it make more strategic decisions about water investments and add value to how public resources are utilized for improved management of the hydrological basins with sustained benefits such as ground water recharge, flood protection, soil conservation and drought management which will have an impact not only in the project area but also in areas downstream. The assistance that the project provides in preparing the plans will help to bring about a strategic shift in the manner in which the Government plans and budgets for water infrastructure and makes strategic choices at the basin level. 5. ***Investing in building the resilience of farming households*** is a promising and sustainable pathway based on the following: (i) enhanced knowledge about climate change risks and its impact on farming will encourage women and men from vulnerable households to change behavior and adopt practices and technologies that can help them introduce adaptive practices such as changing crop calendars, purchase new technologies and inputs for more efficient and productive use of water through Farming Field Schools and field days; (ii) as the demand for these inputs and technologies grows, private sector will be willing to stock and provide the climate adaptation technologies; Special effort will be made to engage the private sector to ensure that there is a sustainable supply of the technologies and inputs so that they can assist farming households in adopting adaptive practices. (iii) Information communication technology can be an important tool for providing climate change information and awareness to farmers and they would be provided actionable intelligence on how to adapt and will adopt practices that are communicated through the e-extension portals; (iv) women can be important agents of change as they play a key role in helping households deal with food and water security, they are the main users of domestic water and are engaged in some critical farming tasks such as vegetable gardening, feeding of livestock and are disproportionately impacted by climate change [[UN-Women 2016](https://jordan.unwomen.org/en/digital-library/publications/2018/rural-women-and-climate-change-in-jordan)] and would be more willing to adopt and disseminate these practices and technologies if they were given practical guidance [GoJ-NAP, 2020] and opportunities to do so (Annex 8: Gender Assessment); (v) a cadre of community-based women change agents can be key in reaching women from vulnerable households and inculcating transformative behaviour. 6. ***An underlying and core aspect of the theory of change of the current project is that as a result of differences in socially constructed gender roles and social status, women and men experience the impacts of climate change differently.*** It is now recognized that if climate-smart agriculture interventions are to deliver sustainable benefits and do so in an equitable way, they cannot afford to neglect these differences. ***Rural women are crucial to agricultural production and it is important to involve them as this is critical for making the transition to climate-smart agriculture and meeting the food and nutrition security needs of an expanding population in an equitable and sustainable way*** [***(FAO, 2020)***](http://www.fao.org/climate-smart-agriculture-sourcebook/about/en/)***.*** There is also a growing body of evidence which shows that costs and benefits associated with adopting climate-smart agriculture technologies and practices are not evenly distributed among household members[***(FAO, 2020)***](http://www.fao.org/climate-smart-agriculture-sourcebook/about/en/)***.*** Therefore, “gender analysis must be an integral part of climate-smart agriculture interventions [***(FAO, 2020)***](http://www.fao.org/climate-smart-agriculture-sourcebook/about/en/)***.***” Based on this understanding the project will implement a gender-responsive approach to climate-smart agriculture to address the different constraints faced by various vulnerable groups. The project will enhance women’s access to resources, services, information so that they can increase their productivity and contribute to meeting the objectives of climate-smart agriculture and broader development goals. 7. ***Long-term change requires policy dialogue, mainstreaming paradigm shifts in the planning and budgeting processes of national and local institutions and engagement with citizens, civil society organizations and the private sector.*** This is based on the findings that(i)the current degree of integration of climate change considerations into sectoral planning is still low [GoJ-NAP, 2020] and many of the policies at the national level were formulated without a clear understanding of their impact on climate adaptation such as the policy regarding subsidies on barley used primarily as a fodder crop, or the policy regarding the use of reclaimed water, etc., and a more in-depth audit of policies from a climate change perspective would help decision-makers assess the impact on adaptation and lead to a more effective policy and regulatory framework and encourage use of adaptive measures; (ii) there was low-integration of climate change adaptation in national curriculums [GoJ-NAP, 2020] and mainstreaming of knowledge about climate change through incorporation in university and vocational training curriculum will change the orientation and perspectives of a range of professionals and skilled manpower in how they deal with adaptation and encourage adaptation; (iii) increased awareness of local administration tiers about climate risks would help in improved planning, budgeting and implementation at the local level; (iv) awareness of civil society organizations would help to incorporate climate risk awareness in their modus operandi and enhance their capacity for more effective use of climate financing for sustainable long-term change; (v) citizen engagement and awareness campaigns would generate a long-term behavior change and encourage adoption of adaptation measures; (vi) greater engagement of the private sector will encourage supply and provision of innovative technologies and inputs. 8. ***The theory of change for scaling up the scope and impact*** ***of the project in a cost-effective and efficient manner*** are based on several key and well tested assumptions that have proved the test of time; (i) the focus of the project on capacity building and technology transfer is expected to instil long-term behaviour change in the target communities, institutions and policies and is also one of the main recommendation of the Paris Agreement; (ii) the replicability of the project to other areas is expected to be undertaken as a result of the engagement of the private sector who would explore the growing market based on increased demand by targeted and other households through the demonstration effect of current users of the array of technologies and inputs that the project will introduce; (iii) the incorporation of climate change in the curricula of the academic and vocational institutions will be used for teaching and training to students and professionals on a regular basis that will be used to train and implement more climate adaptive measures and build resilience. The investment in the capacity building of local tiers of municipal government, civil society and the cadre of climate wise women is expected to pay dividends in terms of the incorporation of climate change adaptation measures in their plans and strategies.   Figure 1: The Theory of Change Diagram    *An enlarged version of the Theory of Change Diagram in given in Annex 17.* |
| **B.3. Project/programme description (max. 2000 words, approximately 4 pages)** |
| 1. The goal of the project is increased climate resilient sustainable development in the country. The project is designed to help the country adapt to climate risks and is aligned with the country’s Green Growth Plan (2017) which stresses the importance of shifting behavior towards more efficient use of water resources, knowledge transfer and introduction of drought tolerant varieties. The project is designed to further the objectives of the Climate Change Policy (2013-2020), the National Adaptation Plan (2020) and to reach the objectives identified in the INDC (2015) by building the adaptive capacity of communities and institutions in Jordan, addressing the needs of vulnerable groups, increasing the resilience of water management systems as well as the agricultural sector to climate change[[10]](#footnote-10). 2. The project will have three interrelated components which will work synergistically and enhance the impact of project investments. The components are designed to deal with the key barriers identified above and are grouped into three components addressing *water* *infrastructure*, *households capacity for adaptation* and *institutional capacity* at various levels;    * Component 1: Climate Resilient Water Systems for enhanced water security;    * Component 2: Climate Change resilience for Enhanced Livelihoods and Food Security;    * Component 3: Scaling-up climate adaptation into policy and across actors (institutions, private sector, civil society). 3. **Component 1: Climate Resilient Water Systems;** This component has been designed to enhance water security at the farming community level in the Dead Sea Basin which has been jeopardized by climate change. The ***expected outcome*** from the component is ***enhanced water availability to mitigate climate change adverse impacts***. Current sources of water supply are quite variable, limited and cause further water imbalance in the project locations and further downstream. In keeping with the Government’s plans for a paradigm shift in how water is used and managed (Section D.2), the project will invest in proven water solutions such as rainwater harvesting, use of water saving domestic devices and use of reclaimed water that will be upscaled in the project area and use that as an entry point for initiating awareness and orientation about water conservation measures (Details available in Annex 2 pages 52🡪67). While there is potential for investing in water structures that can help to recharge the aquifers, prevent floods and soil erosion, there is inadequate technical capacity across institutions to develop comprehensive landscape level investment plans to enhance the resilience of the hydrological systems. The set of interventions has been selected because of their potential for delivering high-impact within the comparative advantage of the Accredited Entity (AE), it meets all the environment and social safeguards and for its potential to provide immediate and long-term protection against climate risks in the project area (Annex 2 pages 68🡪75). 4. **Output 1.1.1:**  ***400 public buildings and 7,850 households will be fitted with the roof top water harvesting structures:*** Associated Activities include the provision of technical assistance and oversight for water resilient systems, installation of rooftop rainwater harvesting structures (10--.20 m3) and water saving devices for households and public buildings. This activity will address the shortage of water at the household level. Households which are connected to the public system for domestic use do not always get regular supply. People in the project area complained that they were only supplied water once a week. This activity aims to build climate resilience through improved access to water and efficient water use at the household level for both domestic use[[11]](#footnote-11) and for crops planted in the homestead and in selected public buildings such as schools, mosques, municipalities for wider dissemination and awareness of the technology at the local community level and to also help address water scarcity in public buildings. Details of the criteria to determine the technical feasibility have been detailed in Annex 2, pages 52🡪67. A service provider will be competitively selected among NGOs and CBOs for the identification of the households and develop a behavior change strategy for more efficient water use in homes and in the public sphere in schools, mosques and other public places. The NGO selected will develop special programmes for school children and teachers to engage them in water conservation activities. One of the criteria for the selection of the service provider will be their proposal and innovation on how they plan to engage school children through art, quiz competition and water savings activities at the school. The awareness among children is expected to generate additional benefits as young people are being recognized as the champions of climate change who will promote the climate change agenda as adults. A technical criterion for the selection of the geographic area in the Governorates based on technical feasibility and potential for using the water for homestead gardens, vulnerability, etc., will be used for identification and prioritization of households (Table 1). 69.3% of the output´s budget will be allocated to fitting rooftop water harvesting systems (USD 10 million). This component will be jointly executed by UNDP (Output 1.1.1, Activities 1.1.1.4 and 1.1.1.5 and Output 1.1.3, Activities 1.1.3.1, 1.1.3.2 and 1.1.3.3) and FAO. . 5. The investment will be accompanied by ***awareness and orientation on water conservation*** at the household level, for municipal staff of public buildings and children and teachers in schools for sustainable behavior change. The project aims to promote water-use efficiency through uptake and diffusion of water saving devices in households and public buildings. Water saving devices include spray taps, faucet aerators, pressure reducing valves and low-flow shower heads with shut-off valves (Annex 2, Figure 24 page 57). In Jordan, existing evidence suggest that water saving devices has proved to save 30% of water used in buildings (USAID 2005). The government – often with support from international donors- has already embarked on a campaign to promote the uptake of these devices, so this activity is well aligned with existing policies (USAID 2018) (Annex 2 page 56-->57). Therefore, the project will present in schools and other public buildings the advantages of identified devises that will allow families to save water. These devices (e.g. spray taps, faucet aerators, pressure reducing valves and low-flow shower heads with shut-off valves) will not require technical expertise to be installed and they do not require maintenance. Coherently, households will also be introduced to water conserving devices and gadgets with private sector engagement to further enhance the efficiency with which the water is used at the domestic level given that almost half the water is use for domestic purposes in the country. The activity will be introduced in a phased manner based on technical specifications. The phased approach envisages that the project will invest based on beneficiaries’ readiness and capacity to receive the rainwater harvesting system. Beneficiaries will be involved in a series of awareness events (Phase I) that will include climate change and water scarcity and that going through specific awareness and training events for identifying feasibility and optimal operation and maintenance on installed systems (phase II) will end by demonstrating the key role that each household has in ensuring water security (phase III). 17,8% of the output´s budget will be allocated to raising awareness and education activities. A team of specialists will be in charge of planning, providing technical assistance[[12]](#footnote-12) and oversight and monitoring all the technical aspects during the activity´s execution (12.9% of total output´s budget). The team of specialists will include experts from the ministry of water and irrigation, experts from FAO as well as technicians (e.g. foreman, architect, and construction engineers) competitively recruited in Jordan. While planning will be fully in charge of specialists of the Executing Entity, oversight and monitoring will be done in collaboration with the Ministry of Water and Irrigation. Technical assistance will be provided by procured parties supervised by experts from executing entities. 6. The households that benefit from the rainwater harvesting system will be expected to contribute part of the costs based on criteria that favours women-headed households, refugee and poor households, those reliant solely on agriculture, HHs with a person with disability or more than six dependents and HHs using the water for homestead gardens for increased food security. While men and women will both be consulted on designing water outlets, special care will be taken to involve women as the primary users of domestic water, kitchen gardens and feeding livestock in the homestead. The criteria for the selection of public buildings will be based on water use in the buildings such as schools, mosques, hospitals and the willingness to finance part of the cost and install water savings devices and gadgets from their own resources and participating in orientation sessions on more efficient water use. These will be directly paid by the HH to the seller of these gadgets. The amount will not enter project books but the record of who has installed these (after verification during the feasibility assessment, and the cost will be entered in the M&E system.   Table 1 Description of Eligibility criteria and financial Incentive proportions per target group   |  |  |  | | --- | --- | --- | | **Financial Incentive Proportion / Per cent of total costs covered by the project per target group)** | **Expected distribution of funds per target group (preliminary)** | **Eligibility criteria** | | **100%** | 20% | Women-headed household, those identified as poor households with potential to use water for homestead kitchen gardens. | | **100%** | 20% | HH dependent entirely on agriculture owning/renting up to10 dunums of land with possibility of planting around the homestead. | | **70%** | 20% | HH with a person with disability or more than 6 dependents [(UK4D, 2018)](https://assets.publishing.service.gov.uk/media/5bb22804ed915d258ed26e2c/Persons_with_disabilities_in_Jordan.pdf). | | **35%** | 40% | Any other HH which applies and is willing to invest in water saving gadgets and devices within the HH. |  1. **Output 1.1.2:**  **Reuse of reclaimed water from 3 Waste Water Plants is optimized.** The associated activities will include enhancing thestorage capacity for distribution of water to maximize use of reclaimed water from the wastewater treatment plants in Madaba, Karak, and Tafilah. No new households will be connected to the wastewater treatment plants, as these activities concentrate on existing plants and the wastewater volumes they already treat. This will assist in enhancing climate resilience at the farm level by providing additional water to grow crops in accordance with Jordan’s Water Substitution and Reuse Policy (2016). MWI has certified its commitment to undertake the operation and maintenance of the storage and distribution infrastructure that will be built to maximize the use of the reclaimed water (Annex 13, see MWI letter). The project will assist the MWI and the MoA in building capacity of Water User Association (WUAs) among farmers that are or will be connected to reclaimed water sources. WUAs will be supported in affixing the responsibility for water allocations, operation and maintenance at the field level and costing among users. The project will also support WUAs in ensuring transparency and rational water sharing rights among farmers and in establishing rules and applications forms to allow possible enlargements of the network for use by additional subscribers. 2. **Output 1.1.3: Landscape Resilience Investment Plan for part of the Dead** 3. **Sea Basin** in the four target governorates and enhanced capacity of MWI to prepare similar plans in the future. The activities under this component will include plans for infrastructure investments for recharge of the aquifers in the Dead Sea Basin, flood protection works, weirs and delay action dams, storage ponds, water diversion structures, etc. Strong technical capacity will be procured through the project for development of a portfolio of investments that are technically, economically and socially assessed. The preparation of the plans will be used as an entry point for building the technical capacity of the MWI and introducing a more strategic and comprehensive approach for investments at the landscape level. These plans will be used by the Government to make the investments from its own resources in the future or secure additional financing from other development agencies and partners.   Table 2 Eligibility Criteria for the selection of beneficiaries in Component 1,   |  |  |  |  | | --- | --- | --- | --- | | **Component 1: Climate Resilient Water Systems;** | | | | | **Key Activity** | **Eligibility Criteria** | **Stage Timing** | **Responsibility** | | Installation of rooftop rainwater harvesting structures and water saving devices for households | * Single house legally owned by the beneficiary in target areas. * Technical feasibility based on roof size (at least 100 m2) and land availability (up to 2 dunums) and lay-out. * Finance part of the cost through an agreed plan of cost-sharing. * Installation of water savings devices and gadgets from own resources. * Potential for use of the water for kitchen gardens and agriculture use around the homestead. * Proof of involvement of women in positioning of outlets and consideration of people with disabilities where relevant. * Proof of participation in orientation sessions on optimal water use. * Incentive will be provided based on the vulnerability criteria identified. | During implementation of the project | Service provider will identify based on criteria and propose to PMU.  PMU will assess based on criteria and make final selection. | | Installation of rooftop rainwater harvesting structures and water saving devices for public buildings | * Building owned by public or civil society institutions in target areas with a clear public function (schools, training centers, community centers, etc.). * One hundred out of 200 schools to be girl’s schools * Technical feasibility based on roof size. * Proof of installation of water savings devices and gadgets from own resources * Formal agreement with the institution to use and allow the use to agreed third parties of the infrastructure to do trainings, orientation and awareness sessions on optimal water use. | During implementation of the project | Service provider will propose to PMU.  PMU will assess based on criteria and make final selection. | | Selection of waste water treatment plants for investments in hydraulic structures to maximize use of reclaimed water | * Proximity to agricultural lands with the potential to use reclaimed water. * Systems in place to monitor water quality at the outlets. * Adherence to water quality indicators and respect of national laws * Availability and volume of surplus reclaimed water of at least 500 m3/day available for at least 3 months of the year * Existence of agreements between MWI and farmers to regulate reuse of reclaimed water * Formal agreement of the MWI and of the WAJ to assume the operation and maintenance costs during and after the project with participation of local farmers (Annex 13, MWI letter). | Madaba, Karak, and Tafilah have been preselected with the MWI based on the criteria. | MWI and FAO have selected sites during design stage. | | Landscape Resilience Investment Plans | * Priority to be accorded to plans in (i) areas which are identified as most impacted by climate risks in project area; (ii) potential to offer protection from flash floods (iii) potential for ground water recharge; (iv) potential to impact a minimum number of households (iv) potential for inclusion in Capital Investment Plan of MWI. | During implementation of the project | MWI/UNDP Technical Assistance/ Local communities to be involved in selection and design. |  1. **Component 2: Climate change resilience for enhanced livelihoods and food security:** This component has three outputs; (i) Enhanced capacity of households to deal with climate change; (ii) strengthening of a system of e-extension for wider dissemination through use of Information Communication Technology for Climate Adaptation (ICT4CA) and (iii) establishing a cadre of climate wise women for climate adaptation. The ***expected outcome*** from this component is ***enhanced capacity of households to deal with climate change***. 2. **Output 2.1.1: By year seven, 6,000 women and men farmers will be trained in climate resilient production practices through Farmer Field Schools (4,050) and field days (6,000) of which at least 2,200 will be women farmers.** The first sub-component is intended to strengthen the capacity of farming households to better adapt to climate change and build their resilience. The project will help people understand how they need to adjust their crop calendar and change their planting and harvesting dates in response to changing climate. The project will focus on crops relevant for the area such as barley, , olives, figs, stone fruits, apples, vegetables and herbs as well as livestock, etc. The technologies have been selected based on the priority crops grown in the project area and those considered most relevant for the target areas (Annex 2, Section 5. In the selection the project has been particularly sensitive to technologies appropriate for women for production of herbs, vegetables such as wicking beds for herbs, grow bags for vegetables and low cost green-houses. Through the FFS the project will introduce techniques, seed varieties and crops which are much more drought tolerant and water efficient such as the cultivars of a range of horticulture crops (grapes, olives), introduction of tested varieties of barley, vegetables and horticulture crops. The project will also organize FFS around water efficient irrigation technologies like sprinkler systems, drip irrigation, subsurface irrigation systems, etc. Multiple approaches will be used for increasing water productivity. These could include combining biological water-saving measures with engineering solutions (water saving irrigation method, deficit irrigation, proper deficit sequencing, modernization of irrigation systems, etc.), and agronomic and soil manipulation (seed priming, seedling age manipulation, proper crop choice, integrating agriculture and aquaculture, increasing soil fertility, addition of organic matter, tillage and soil mulching, etc.).   Table 3:Key Topics in FFS   |  |  |  |  | | --- | --- | --- | --- | | **FFS Main Topic** | **Priority Target** | **Main Objective** | **Main Climate Change Adaptation Benefit (CCAB) and coherence with national priority adaptation measures (CAM)** | | Shift to drought tolerant barley varieties[[13]](#footnote-13) | Rainfed barley producers. | Reduce water needs of plants and ensure higher resilience of crops to temperature and prolonged water deficit. | **CCAB:** Farmers will be able to cope with the increased evapotranspiration caused by increasing temperatures and water deficit. This will potentially allow for increased productivity per unit of water and more stable income for households.  **CAM:** (I) Improving soil water storage to maximize plant water  availability by maximizing infiltration of rainfall; (II)  minimizing unproductive water losses (evaporation,  deep percolation and surface run-off); (III) increasing soil water holding capacity; and maximizing root depth; (IV) Application of conservation agriculture; (V) Use of supplemental irrigation from harvested rainwater in the critical stages of crop growth; (VI) Modification of planting and harvesting dates | | Water harvesting infrastructures (on farm contour bunds/gully plugs) | Rainfed crop producers (e.g. pulses and grains). | Increase water availability at the farm level and increase soil moisture at the roots level. | | Water harvesting infrastructures (on farm bunds) | Rainfed fruits producers (e.g. plums and cherries). | Increase water availability at the farm level and increase soil moisture. | | Conservation Agriculture (no/minimum tillage, crop rotation and restorative fallow practices) | Rainfed crop producers. | Increase soil moisture, reduce land erosion due to rain washing and enhance the soils physical properties. | | Adapting the crop calendar to changing temperature and rainfall patters: modification of planting and harvesting dates. | Rainfed crop producers (e.g. pulses and grains). | Reduce risks of water shortage and increase chances of water availability in the critical phases of growth of the plants. | | Protected and semi-protected cultivation’ practices for home gardens and irrigated lands | All farmers with irrigation and households with home gardens. | Increase productivity per water unit and allow for higher production in limited space. | **CCAB:** Farmers will be able to cope with the increased evapotranspiration caused by increasing temperatures and water deficit. Farmers will be able to produce for more cycles, reduce the amount of inputs and water needed. This will allow for increased productivity per unit of water and more stable income for households. | | Fertigation of crops | All farmers with irrigation and households with home gardens | | Wicking beds | Increase productivity per water unit and allow for higher production in limited space, reduced risk of soil contamination (chemical and biological). | | Container and soilless cultivation (aquaponics and hydroponic) | Increase productivity per water unit and allow for higher production in limited space, reduced risk of soil contamination (chemical and biological), reduce the level of pesticides needed and reduce the risk of soil borne diseases. | | Agronomic and soil manipulation (seed priming, seedling age manipulation, increasing soil fertility, addition of organic matter, tillage and soil mulching, etc.). | All farmers with irrigation and households with home gardens | Increase productivity per water unit and allow for higher production in limited space, reduced risk of soil contamination (chemical and biological), reduce the level of pesticides needed and reduce the risk of soil borne diseases. | | Irrigation and cultivation with reclaimed water | All fodder producers | Shift from rainfed barley to better-irrigated crops such as AlfaAlfa. Increase productivity per water unit and increase of fodder available for livestock. |  1. The project will use the Farmer Field School (FFS) approach which is conducted on the farmer’s field over the entire crop season. The MoA staff will be trained as FFS Facilitators and trained for the purpose. The approach to FFS will focus on climate adaptive aspects of both crop and livestock production. FAO has been a pioneer of the FFS which leads to much higher adoption rates and sustained behaviour change. Experience of projects like the IFAD financed Rural Economic Growth and Employment Project shows over 80% adoption rates.[[14]](#footnote-14) In addition, the project will also sponsor field days and workshops to scale up tested techniques and practices. The project will design and organize separate FFS for women by identifying topics of interest to them and also encourage women to participate in the main FFS where appropriate. The project will especially encourage Lead farmers to demonstrate the practice and technology to others in the area. The Lead farmers will be given additional incentives and inputs to demonstrate the technology to others and expects that these Lead Farmers will help to expand the outreach of the adaptation technologies and practices over time. 22% of total education budget per farmer in Activity 2.1.1.6 (FFS implementation) is expected to provide the necessary supplies and inputs. . The private sector input suppliers[[15]](#footnote-15) will also be engaged throughout the process and will be invited to demonstrate their inputs and technologies as they will be the ones expected to provide the improved technologies and inputs to farmers on a sustained basis based on the market potential. There are a range of activities that will be undertaken under this sub-component, which have been elaborated below; 2. ***The set of activities identified to achieve this output include design of appropriate modules for Climate Smart FFS***: Six modules will be developed by specialists in the first year and fourth year in collaboration with local farmers for implementation. International and local experts will be paired to develop these training modules. Technical assistance will be procured for the purpose among Jordanian NGOs, and private firms that will take responsibility for the FFS and will help develop work plans, training modules in coordination with MoA and NARC and organize the venue, inputs and other arrangements for the FFS and field days. The component will be implemented by the Extension Agents[[16]](#footnote-16) of the Ministry of Agriculture. The Extension Agents will organize the Farmer Filed Schools (FFS), field days and demonstrations of new technologies. The activities will be undertaken in coordination with the National Agriculture Research Centre (NARC) which has four research centres in the selected Governorates and staff in Amman who have considerable experience in conducting FFS and field days in several previous projects. Technical Assistance (TA) will be recruited in the first year and support the project throughout its seven years. The TA will be competitively procured and can be assigned to an individual or a firm, an NGO or university to take full responsibility for developing work plans, training modules and coordinating with MoA and NARC for execution by their staff and identifying and organizing the venue, inputs and other arrangements for the FFS and field days for technology transfer. Special effort will be made to ensure that the FFS are organized and implemented in a manner which is relevant for women and encourages their participation. The tested techniques and practices available for adaptation locally by NARC will be incorporated in the modules (Annex 2: section 5). NARC has developed drought resistance barley and other crop varieties as well as innovative techniques that conserve water such as the grow-bag technique, wicking beds for vegetables, beans, sage and thyme as well as a range of irrigation management practices to help economize on the use of water. NARC staff will collaborate with the PMU in the development of the content for the FFS and in implementing and monitoring them special care will be taken to ensure that these are gender-sensitive. 3. ***Conducting the FFS would involve a series of preparatory activities which will be undertaken by the project including*** *Training a team of Master Trainers/Facilitators:* A team of 40 Master Trainers or Facilitators (50 percent women) will be trained from the selected Governorates, a few adjoining Governorates in the Dead Sea Basin and NARC. They will be provided 30 days training in the technology to be disseminated as well as some basics of how the FFS is to be planned, implemented and monitored. Periodic refresher trainings will be held as required. The Extension Agents of the MoA will have the main responsibility for identifying the participants for each FFS. The Extension Agents will select the participants based on the following criteria; (i) Participants who have been impacted by climate change; (ii) relevance of the training for them; (iii) commitment to attend the designated sessions; (iv) commitment to maintain records on input use and report on adoption rates; (vi) agree to visits by supervision and monitoring teams and (vii) willingness to disseminate the learnings to other farmers. At least 70 FFS will be organized exclusively for women and the topics decided in close collaboration with women farmers for crop and livestock activities selected by them. Women will also be encouraged to participate in the main FFS where appropriate. The project will refine the existing application used to track climate resilience adoption disaggregated by sex. The Master Trainers will be provided with a smart device and trained in the use of the FAO monitoring application that tracks adoption rates over time and reports the impact of the technologies and practices disseminated. The records will store baseline information and changes in adoption rates, water use, climate resilience indicators such as productivity per unit of water and land as well as impact of precipitation and temperature changes on yields. The project will provide this technology for use in the selected Governorates in year 1 and scale it up to all extension staff in year 4 by providing 120 smart devices and training in its use. 4. The project will finance 270 FFS with a total of 4,050 participants. The FFS will be conducted by the Agriculture Extension Officers of the MoA. It is expected that on average there will be 15 farmers per group. The project will organize 70 FFS exclusively for women with a minimum participation of 1200 women. Apart from the FFS exclusively for women, they will also be encouraged to join the other FFS as well. The FFS will be conducted by Extension Agents and NARC staff. The staff time of the Government staff will be the contribution from the Government of Jordan and only out of pocket costs such as expenditure on travel and food in the field will be paid by the project. The project will provide inputs for the FFS (seed, wicking beds, grow bags, saplings, low cost material for green-houses, etc.) as well as the technologies that are being demonstrated (drip, sprinkler, etc.). The FFS will be implemented on Farmers Fields and where required, the four NARC research centres will be used. 5. NARC has tested a host of climate adaptive technologies which it will demonstrate and disseminate. The modus operandi used by it are field days, workshops and exchange visits. It is expected that NARC will hold 500 sessions and field days over the 7-year project in the four Governorates and in Amman to disseminate these technologies. It is expected that 6,000 people will benefit from these field days. The private sector agencies which are selling the climate resilient inputs and technologies will be invited to these demonstrations. Given the COVID-19 pandemic and its disruption of the supply lines, it will be an extremely timely and appropriate intervention for the households to become more self-reliant in food through establishing home-stead vegetable gardens using water efficient technologies. NARC will contribute its staff time and the use of its facilities for the purpose. The project will only finance the out of pocket costs for travel and other logistical aspects. Private sector input suppliers who stock these technologies will be invited to introduce their products, location, contact numbers and prices for ensuring sustainable supply lines and promote a market based approach. 6. An independent impact assessment will be undertaken by a third party to assess the quality of the demonstrations, beneficiary feedback, adoption rates and the extent to which participation in the FFS and field days has helped in introducing to the farming households adaptive technologies and practices and its impact on building their resilience. A high-quality report will be produced to record the experience and draw lessons from it for the future. 7. **Output 2.1.2: At least 30% of the farming households in the country or 30,000 farming households are reached through the e-extension** system or Information Communication Technology for Climate Change (ICT4CA): These will be the direct beneficiaries of the project. The project will further strengthen and consolidate the efforts of the MoA (DG-Extension and NARC) and MoE in disseminating information on climate change adaptation and weather forecasts through the model of e-extension or ICT4CA which they have put in place (Annex 2, para 174). NARC is also investing in developing a system for propagating tested research through the use of smart applications. Tailored gender-responsive extension messages on climate adaptation measures and weather forecasts which provide actionable information will be broadcast through this mechanism. This is all the more important given the limited outreach of the traditional extension approach. Given the current COVID-19 pandemic with restrictions on travel, this approach can also prove valuable in case of any future travel restrictions. The project will undertake the following specific activities under this sub-component. 8. ***Developing climate-smart IT solutions for smart devices:*** The project will assist in developing and strengthening, smart applications which can be used by MoA, NARC and MoE for disseminating information on climate change adaptation. It is projected that 85% of the people in Jordan own a mobile phone [(Pew, 2019)](https://www.pewresearch.org/internet/2019/03/07/use-of-smartphones-and-social-media-is-common-across-most-emerging-economies/) and this can be used to download both audio and video content. The project will hire a technical expert who will review the IT systems which have been developed by the MoA and MoE and assess their capacity, upgrade them and build an interface that enables its use by multiple agencies. This investment will be made in the first year. 9. ***Disseminating climate smart-solutions and weather forecast through smart devices:*** The MoA and the MoE have already initiated the development of platforms for disseminating information through smart applications using ICT4CA. NARC is in the process of establishing a social media platform and a system for transferring its tested technologies. Each of these agencies have committed to develop messages, extension materials, video and audio content and weather forecasts that will assist women and men from farming households to adapt to climate change through transfer of technology and weather information. This activity will be financed entirely by these Government entities as each of them have dedicated staff to develop and transmit the messages.   Table 4: Eligibility Criteria of beneficiaries of component 2   |  |  |  |  | | --- | --- | --- | --- | | **Component 2: Climate Change resilience for Enhanced Livelihoods and Food Security;** | | | | | **Key Activity** | **Eligibility Criteria** | **Stage Timing** | **Responsibility** | | *Selection of modules for Climate Smart FFS* | * Modules will be selected based on a participatory approach with both men and women farmers. * Priority will be given to topics based on farmer ranking of adaptation measures. * Women groups to identify their own set of priorities for building their resilience. | During first year of project implementation. | Technical Specialist in discussion with MoA and Farmers. | | *Master Trainers/Facilitators (40)* | * Extension Agents already employed with MoA or NARC in the project area or close proximity to project Governorates of which at least 50% are women. * Preference will be given to EAs with previous experience of FFS. * Formal agreement with the EA and the MoA to participate in project activities and devote at least 40% of their time to FFS. | During first year of project implementation. | DG Extension with a sub-committee from PMU. | | *Identify target groups including beneficiaries of FFS* | * Source of water is from legally permitted sources. * Own or lease less than 50 dunum of rain-fed land and 5 irrigated dunum. * There will be no requirement for land ownership or leasing for women farmers. * Women will have a choice to attend women only FFS sessions or the mixed gender FFS sessions. * commitment to attend at least 80% of the designated sessions before he or she is entitled to receive any inputs; * commitment to maintain records on input use and report on adoption rates; * Formal acceptance to be visited by supervision and monitoring teams; * Formal acceptance to share the learnings with at least 3 other farmers. | On-going. | Directorates of Agriculture in the selected Governorates. |  1. **Output 2.1.3: Establishing a cadre of 400 climate wise women change agents for climate adaptation:** The third sub-component will train a cadre of women as change agents.  Women in rural areas are disproportionately affected by climate change with unequal access to resources and assets, barriers to decision-making and limited mobility.  At the same time, women have the potential to become agents of change – leaders, practitioners, educators and influencers in climate change adaptation and mitigation. Empowering rural women as agents of change for climate adaptation has been identified in the literature as critical to addressing climate change challenges. Building on the success of the award-winning GiZ Water Wise Women initiative in Jordan, the project will create a cadre of 400 young women as agents of change for climate adaptive practices from the rural areas in the four target Governorates. These young women will be advocates and repositories of knowledge and technical guidance and support on climate change adaptation, anchored in rural communities. The women will be trained and certified through a customized sixteen-week course delivered over the course of a year in state-of-the-art techniques for climate adaptive agriculture, agri-business planning and development and use of social media for climate change adaptation advocacy. The presence of these young women in the rural communities will bring practical knowledge and sustained support for climate adaptive agriculture to the doorstep and optimize, especially for women and youth, the benefits of project interventions. At the national level, it will highlight women’s role as change agents in climate change in Jordan and provide the government with informed, community-based interlocutors for mainstreaming gender in climate change. 2. ***The project will undertake a set of activities to establish the cadre of women agents that will include*** procuring technical assistance for the purpose to design a proper course and training manual for the purpose. The course content will include modules on irrigation technology, rainwater harvesting and soil management, domestic use of water, organization and management of the dissemination of key technologies, budgeting and business plan development.. The course will be developed in English and Arabic. A Memorandum of Understanding will be signed with a Jordanian university to provide the training like the Jordan University of Science and Technology (JUST).[[17]](#footnote-17) A 7-week course on Climate Change Adaptation, will be delivered over 6 months to 8 young women agronomists to train them as Master Trainers for training Climate Wise Women from the four target Governorates. This training will be advertised through multiple channels such as Universities, Colleges, newspapers, social media and Civil Society Organization networks. The scholarship will cover transportation, accommodation, board and lodging. There will be an agreement signed between the young women agronomists and the MoE specifying the obligation to complete the course and deliver the climate adaptation training to a specified number of young women in the community.The selection criteria will include but are not limited to the following:  * Professionals with a degree in the field of Agriculture / Professionals in the field of Agriculture with Master degrees. * Resident in Tafilah, Maan, Madaba and Karak (2 from each Governorate) * Excellent interpersonal and communication skills * Willingness to work in the field  1. ***Competitive selection and training of candidates for climate wise-women:*** Service provider will be hired in each Governorate to manage an information dissemination campaign (educational institutions, newspapers, CBOS and Civil Society Organization networks, community dialogues) for the recruitment of the 400 young women, with 100 women from each Governorate and at least one woman from each village. The candidates will be competitively selected in each Governorate through a board comprising representatives from the PMU, Government Extension Departments, Master Trainers and the NGO. The criteria for selection will include the following:  * Graduate * Excellent Interpersonal skills * Geographical Location (minimum of one women from each village in each Governorate)  1. There will be an agreement signed between the young women selected to be Climate Wise Women and the MoE specifying the obligation to complete the course and deliver the climate adaptation training to a specified number of young women and men in the community. 2. Two service providers will be hired to organize and deliver the training for 400 young women from rural areas in the four Governorate. Each service provider will be responsible for organizing, delivering and monitoring the training for 200 women from 2 Governorates. These young women will be trained by the young women Master Trainers prepared by the project. The training will be organized at a central venue with appropriate arrangements in place for activities. The service provider will be responsible for providing safe transport and making all the logistic arrangements for the training. 3. **Output 2.1.4 By year 7, 15.000 Persons sensitized for climate adaptive measures.** The trained women agents will be required to hold community dialogues, undertake household visits highlight the importance of including women and the role that women can play in helping rural households adapt to climate change through the key role they play in the domestic and agriculture sectors and in their role as mothers and educators and an important member of the household and the community. The specific activities that would be undertaken to highlight this role would include the following activities given below. The Climate Wise Women will hold dialogues with groups of women, men and youth in the communities to provide them with information about the phenomena of climate change, reflect on the impact of climate change on their lives and undertake household visits to advise on adaptation measures at the domestic and farm level. These will include but not be limited to water-saving devices and practices at the domestic level, setting up of simple greenhouses, drip irrigation systems, production and use of growbags etc., at the homestead and farm level. It is assumed that each young woman will organize 10 dialogues and undertake 25 house visits for which she will receive an activity-based stipend. The Climate Wise Women will also use social media to lead dialogues on climate change especially with young people and introduce them to modern climate adaptive agriculture. 4. ***Organizing multi-stakeholder climate-wise women forums:*** The Climate Wise Women Forums will be organized in Year 4,5 and 6 of the project. These events will serve to highlight the role of women as change agents; identify achievements and challenges for climate adaptation at the community level for women, men and youth; provide feedback to the Jordanian government on actions required at multiple levels to address climate change. These events will be highly interactive with modern techniques like World Café used to engage the maximum number of participants in simultaneous dialogues and Gender Action Learning System Tools used to develop a gender-sensitive vision for Climate Change. The participants[[18]](#footnote-18) will be the climate wise women from the four different Governorates, young men and women from target communities, Government representatives from MOA and MOE at the national level and the Agriculture and Environment departments at the governorate level and relevant Civil Society Organizations.   Table 5: Eligibility criteria for the selection of the climate wise program beneficiaries   |  |  |  |  | | --- | --- | --- | --- | | **Key Activities** | **Eligibility Criteria** | **Stage Timing** | **Responsibility** | | Women Master Trainers (8) | A degree in the field of Agriculture or water engineering or equivalent.  Resident in Tafilah, Maan, Madaba and Karak (2 from each Governorate)  Excellent interpersonal and communication skills  A formal agreement specifying their roles and responsibilities. | During first year of project implementation. | PMU through a committee with representatives from NDA and DG Extension. | | Climate wise women change (400) | 100 women from each Governorate and at least one woman from each village.  The women will be selected through a two-stage process;  Written applications invited by placing an advertisement in local papers, social media and word of mouth.    Screening based on educational qualifications, graduation grades, age, experience and domicile.  Personal interview conducted by a panel to assess personality, interpersonal skills. | During second year of project implementation | A board comprising representatives from the PMU, Government Extension Departments, Master Trainers and the NGO selected to deploy them. |  1. **Component 3: Scaling-up climate adaptation:** This component will be instrumental to scale up impacts, ensure long term sustainability of identified climate change adaptation practices and technologies and guarantee national ownership of the identified transformative path. As detailed in Annex 2 (pages 35🡪37 and 68) the main factors hampering climate change adaptation of the water and agriculture sector in Jordan are: (I) the institutional lack of coherence between the national strategies and their effective application/mainstreaming into existing and/or new legal tools and standards; and (II) the lack of technical skills and resources. This is particularly evident in the way water and agriculture subsidies are still planned and distributed in a business as usual model without any specific consideration/premium for adaptation practices. Furthermore, notwithstanding the fact that the majority of the rural population remain dependent on water and agriculture for their livelihood, very limited action is taken to ensure the adequate technology and knowledge transfer to farming communities due to limited and weak extension services. The combination of these factors have led to maintain inefficient irrigation technologies, a problematic pricing structure for water and wastewater, and water subsidies that do not play in favor of optimization and shift to improved technologies across the country. Similarly, the current setting for rainfed grains (e.g. barley for fodder Annex 2 pages 18🡪19) does not play in favor of the adaptation objectives of the country. 2. Therefore, the main **outcome of this component will be to mainstream gender sensitive adaptive tools and practices to adapt to water scarcity in the national policy and educational framework as well as in the administrative, economic and social frameworks of target areas**. This will be secure by addressing identified policy bottlenecks with stakeholders and upgrading the capacities of those actors (local institutions, civil society organizations and private sector) that constitute the front line of adaptation in rural areas. There are 3 outputs that will help in securing the ground for effective execution of climate change adaptation strategies. 3. ***Output 3.1.1: 6, specific policy and regulatory bottlenecks are identified and reforms initiated:***. The project will work with partners and stakeholders[[19]](#footnote-19) to ensure that the factors inhibiting adaptation of the agriculture and water sectors to climate change in Jordan are addressed. Therefore, based on lessons learned, the project will support partnering institutions and the national climate change committee (NCCC) with the creation of mechanisms for the establishment of incentives for climate change to support and scale-up adoption. Specifically, the project intends to encourage the following; f: (i) Adoption of drought tolerant grains and fruits and changes in the grain related subsidies to progressively shift from production based subsidies/incentives to climate adaptive incentives/subsidies based on adoption of climate smart field and water management (e.g. those introduced in C1 and C2); (ii) Adoption of water efficient technologies to obtain premium water and agriculture subsidies to progressively shift from production based subsidies/incentives to climate adaptive incentives/subsidies based on adoption of climate smart field and water management (e.g. practices and technologies introduced in C2). This will contribute to the various policy framework objectives of promoting the efficient use of water in irrigation and high-yield agricultural products; (iii) Adoption of building rules that will incentivize: (a) the use of rainwater harvesting systems for rooftops in rural areas; and (b) the integration of water saving devices. A timed incentive based (e.g. tax benefits, subsidies, priority in the approval process for construction’s permits) strategy will be developed and agreed with stakeholders (including the private sector). At the end of the strategy identified devices and technologies will become mandatory. The strategy will also include the upgrade of public building standards to include and enhance the minimum requirements for water saving and water harvesting technologies and construction practices. The adoption of adaptive incentives will also contribute in: (I) increasing the participation of the private sector in national adaptation strategies and will contribute to the national objective of engaging the private sector in the implementation of strategic projects and management of the water sector; and (II) setting national standards for plumbing; (iv) Upgrade of standards for the use of reclaimed water in agriculture. As reported in the main strategic frameworks of Jordan, one of the higher priorities of the country is to increase the supply of water to the agriculture sector by replacing fresh water from surface and groundwater sources with treated wastewater from wastewater treatment plants. As farmers can only produce fodder due to the quality of effluent from WWTP, the project will support stakeholders in enhancing standards to allow a more efficient and effective monitoring process of farms irrigated with reclaimed waters. 4. ***Technical assistance[[20]](#footnote-20) to the Ministry of Environment, the Ministry of Agriculture and the Ministry of Water and Irrigation to address and solve identified policy bottlenecks:*** This will begin with the recruitment of a team of international and national experts to advise and support stakeholders in identifying and initiating the necessary policy reform processes to address identified bottlenecks. The team will work with the NCCC and hold Gender-inclusive consultation with a range of stakeholders and formulate their recommendations for presentation to the TWG-A and to the NCCC. Proposed changes will also be discussed at local level via dedicated workshops and events. The project will ensure the monitoring and follow up of the approval process with relevant institutions. It is expected that at least 6 policy mechanism that include action plans and financial needs will be identified with the reform process initiated. 5. **Technical Assistance to support the MWI in strengthening the enabling environment for promotion of reuse of reclaimed water:**  A team of national and international experts will support stakeholders (e.g. MoE, MoH, MoA, MWI, WUA) in ensuring the upgrade of water quality standards, develop the incentives to enhance the use of reclaimed water and ensure that downstream uses of reclaimed water are included in planning and designing of new plants or expansion of the existing ones. 6. **Output 3.1.2: 6 national curricula of vocational schools (masonry, plumbing and agriculture) and of specialized universities (agriculture, architecture, water engineering) are updated to include climate smart agriculture, water efficiency and precision agriculture.** The activities to accomplish this will include the following; 7. ***Technical Assistance to the Ministry of Education and main Universities to update the national curricula:*** A team of national and international experts will be procured to support the Ministry of Education and universities to introduce gender-sensitive climate change adaptation practices and technologies in the national curricula of vocational schools (e.g. agriculture, light industry and construction) and university degrees (e.g. agriculture, architecture and civil engineering). Gender-inclusive Consultation with public and private actors active in the vocational and superior education sector will be secured to prepare the new curricula for vocational schools and universities in the CC/Agriculture/Water sectors. It is expected that at least 6 institutions will introduce and update their national curricula to introduce climate adaptation as a key integrated approach. The project will support the update of at least the following curricula: (I) Agriculture / Water management (Vocational schools and universities). The project will introduce in the national curricula of agriculture studies key concepts of climate change adaptation, climate smart agriculture, climate adaptive water management and climate adaptive technologies; and (II) Masonry / hydraulics / electricity (Vocational schools). The project will introduce in the national curricula of vocational schools: (I) principles and elements of rainwater harvesting from building; (II) irrigation technologies; (III) water saving devices and water saving techniques in construction. 8. ***Training for teachers and professors to enable the teaching and practice of the new curricula:***  The project will work with the Ministry of Education and Universities to develop an update/upgrade climate change adaptation course for national teachers/trainers/professors. The course will be the base to mainstream gender-sensitive climate change adaptation practices and technologies among teachers, instructors and university professors. *This will involve organization of logistic at the national level, training of trainers; preparation and distribution of learning materials, execution of the training modules, monitoring and evaluation of the trainings.* 9. **Output 3.1.3: Capacity building of least 6440 persons from the private sector, the civil society and local institutions (4 governorates, 16 provinces, 324 municipalities) engaged in climate change adaptation practices.** In line with the Paris agreement recommendation : *“governments, development agencies, and the private sector need to collaborate to strengthen knowledge and capacity for managing climate risks (…) and concerted capacity-building, particularly at the local level, is needed to move from improved information to better decisions”* the project will work with local institutions to ensure that proposed climate change adaptation practices and technologies will be able to grow in a setting that understands their benefits and that is ready to support communities with a local planning approach that is proactive and tailored to the needs of its communities. Additionally, the project will involve and support the capacity development process of both the civil society organizations and the private sector. Both play a critical role in reducing the adaptation deficit of target areas and in transferring practices and technologies as also recommended by the main policy frameworks addressing water and agriculture in Jordan (Additional details are available in Annex 2, pages 65🡪66). 10. ***Local engagement and dissemination process:*** The project will work with a range of civil society organizations in the project areas as well as national level and the local media to develop the appropriate approaches and actions to engage communities in project areas and develop a local engagement plan for maximum outreach and mainstream key climate change adaptation practices and technologies as well as provide information on the source of advice and additional information and learning materials. This will involve Coordination and gender inclusive consultation with local NGOs, CBOs and other representation of the civil society in project areas to develop the engagement plan, organization of logistic at the national level, preparation of information/training/knowledge sharing modules, execution of the local engagement plan and monitoring and evaluation of the local engagement plan. 11. ***Technical Assistance to enhance local administration's and private sector actors' capacities to ensure adoption of introduced with climate resilient practices:***  The project will support local administrations (governorate, province and municipalities) as well as the private sector (e.g. masons, plumbers, electricians, architects, including women technicians) in adopting gender-sensitive tools and practices that will contribute to increasing water savings and climate change adaptation among communities and administrations. This will include provision of trainings and technical assistance on how to comply with existing policy frameworks and practices as well as to address the limitation and bottlenecks preventing the adoption of climate change adaptation actions and specific water saving actions such as those promoted by the project. Gender-inclusive Consultation will be held with institutions (local) and the private sector and civil society in project areas to develop a tailored technical assistance plan. Also, the project will secure that the private sector will be constantly involved in project activities to ensure technology transfer and to stimulate the relation between demand and offer directly in the field. Companies involved in the agriculture inputs and equipment market as well as companies and workers involved in construction and provision of building equipment and inputs will be invited – among other - to participate the activities of the project via (I) Participation in the field farming schools, (II) Dedicated technology field days; (III) Dedicated trainings, workshops and conferences on introduced technologies and practice; and (IV) Dedicated awareness and communication campaigns and events. 12. ***Technical assistance and training to civil society organizations:*** The project recognises the potential of the civil society organizations and their role in supporting beneficiaries in overcoming the adaptation deficit. Nonetheless, the knowledge and technical skills of Jordanian civil society organization and community-based organization appears still under capacitated and requires further support before their contribution can effectively and efficiently deployed in assisting rural communities in their path to adaptation and resilience. Therefore, the project will support this transition and capacity development process via: (I) Dedicated trainings, workshops and conferences on introduced technologies and practices including among others dedicated training to allow replication and scale up of FFS approaches and introduced practices[[21]](#footnote-21). (II) Climate adaptive technologies and practices in agriculture. In these regards the project will replicate for civil society organization and community-based organization the same set of trainings designed for the staff of the MoA. The project will work primarily with those civil society organizations (max 4 per governorate per year) that have a consolidated presence in the project areas and that have experience in the water and agriculture sectors. The process will be demand driven. Additionally, the project will link participants with other projects to enhance their knowledge on climate change adaptation practices. The activity will include the development of a clear and specific training and capacity development action plan to ensure full mainstreaming of CCA and water saving practices across the local civil society.   Table 6: Selection criteria of actions identified under component 3   |  |  |  |  | | --- | --- | --- | --- | | **Component 3: Scaling-up climate adaptation** | | | | | **Key Activity** | **Criteria** | **Stage Timing** | **By** | | Policy and Regulatory Bottlenecks | Policies with a potential impact on water use.  Policies that would encourage adoption of adaptation measures | During implementation | Technical Specialists based feedback from NCCC and TWG-A. | | Specialized universities and vocational schools | Universities and vocational schools that have courses relevant to climate change adaptation (e.g. agriculture, engineering, architecture, masonry, plumbers, electricians, including women technicians) and water optimization. | Pre-identified at design. These will be confirmed during implementation | Technical Assistance and PMU | | Selection of governorates, 16 provinces and 324 municipalities. | Personnel from all governorates, provinces and municipalities in the selectee four governorates of which at least 30% women. | Pre-selected during national engagement process and approved by the NDA,MWI and MoA.. | Technical Service Provider | | Selection of civil society organizations and private sector actors for participation. | Private sector engaged in supplying adaptation inputs and technologies as well as companies workers active in masonry, plumber and electricity.  Individuals/companies will be included based on their fiscal status (e.g. registration) and or proof of informal activity (e.g. self-declaration) of which at least 30% are women.  Civil Society organizations working in the project Governorates. | During implementation | PMU | |
| **B.4. Implementation arrangements (max. 1500 words, approximately 3 pages plus diagrams)** |
| 1. ***FAO*** will serve both as **GCF Accredited Entity**, responsible for supervising the BRCCJ project; and as **Executing Entity** for project execution. **The independence of the two roles** will be guaranteed by establishing two separate functions as follows: 2. **FAO as Accredited Entity**. The FAO’s supervising role will be attributed to the FAO Regional Office for Near East (RNE) located in Cairo with support by the FAO Climate, Biodiversity, Land and Water Department (CB, located in Rome) and other technical divisions as required. In its role as the AE, FAO will undertake (i) all aspects of project appraisal; (ii) administrative, financial and technical oversight and supervision throughout project implementation; (iii) ensuring funds are effectively managed to deliver results and achieve objectives; (iv) ensure the quality of project monitoring, as well as the timeliness and quality of reporting to the GCF; and (v) project closure and evaluation. FAO will assume these responsibilities in accordance with the detailed provisions outlined in the Accreditation Master Agreement (AMA) between FAO and GCF. A **Lead Technical Officer (LTO)** will be appointed in the regional office and will have overall technical responsibility for project execution. The role of the LTO is central to FAO’s comparative advantage for projects and to separate the functions of FAO in its role as Accredited Entity and as Executing Entity. The LTO will oversee and carry out technical backstopping for project execution, coordinating the supervision functions. The LTO will be responsible and accountable for providing or obtaining technical clearance of technical inputs and services procured by the Organization. In addition, the LTO through supervision missions may call other experts to participate and advice and will provide technical backstopping to the Project Team to ensure the delivery of quality technical outputs. 3. FAO Jordan will act as the budget holder (BH) of the project for funds from the GCF and assume the entire responsibility for the project delivery and reporting supported by the PMU. The diagram on flow of funds is given below. The funds will be disbursed by GCF based on Annual Work Plans to FAO-Headquarters from where the funds will be sent directly to FAO-Jordan. The GCF funds will be transferred from FAO to UNDP under a subsidiary agreement (UN to UN agreement). The internal control of the disbursement will follow FAO rules and regulations." 4. **FAO as Executing Entity**.A **project delivery team** will be set up in FAO-J, comprising staff covering all functions relevant to the execution of the envisaged activities. More specifically, following the principle to ensure the highest level of ownership and sustainability of the project investment at country level (i.e., within local institutions), FAO-J’s role in the BRCCJ project will be **limited to the provision of quality assurance**throughout all project components, to enhance the success of the project and its potential replicability, and to **ensure coordination with UNDP, MoE, MWI, MoA as co-financiers/ executing entities**in charge of specific activities. Technical assistance will be provided by mobilizing FAO experts, or FAO supervised consultants and service providers. FAO’s mandate as a global stakeholder in the field of agriculture, water management, and climate change, and its related expertise represents a comparative advantage in providing technical assistance and quality assurance. UNDP will be responsible for implementing activities related to roof-top water harvesting at the household level and the preparation of the Landscape Resilience Plans. The three co-financing Ministries and UNDP will execute the activities that they have identified as part of the contribution to the project and will be considered co-executing entities. UNDP and all three Ministries have provided letters confirming their commitment for co-financing (Annex 13.) 5. **UNDP as an Executing Entity:** 6. The project will be executed by the Environment, Climate Change and Disaster Risk Reduction (DRR) portfolio at the UNDP Country Office. The execution will be supported by the Inclusive Growth and Sustainable Livelihoods team and will benefit from their experience of working with local communities in the project area. The Operations team at UNDP will facilitate the procurement of goods and services during execution for the activities being executed by UNDP. In addition, the capacity from the regional hub in Amman and the procurement team in Copenhagen can be seconded to accelerate the process of procurement and execution when necessary. UNDP will apply its Social and Environmental Screening procedures (SESP) to identify potential social and environmental risks and opportunities associated with the proposed interventions and determine the appropriate type and level of social and environmental assessment. UNDP will prepare the Environmental Impact Assessments as needed and according to national laws and guidelines. UNDP will closely coordinate project execution with FAO at three different levels;    * + - The Resident Representative will offer guidance and the necessary support at policy level.        - The technical level where the team leader of the Environment, climate Change and DRR portfolio and the concerned team will ensure quality assurance.        - The UNDP project manager will closely coordinate with the FAO Project Management team.        - UNDP and FAO will have set up a joint coordination committee that will review execution progress and ensure integration and synergies. 7. The project will draw on the comparative advantages of FAO and UNDP[[22]](#footnote-22) in Jordan and has assigned them roles and responsibilities in keeping with their strengths and experience. FAO has been involved in supporting activities in the agriculture sector including climate resilient agriculture and water management. In Jordan, FAO has worked to reduce the vulnerability of rural communities and support agricultural production and has focused on capacity development for intensifying Climate Smart Agriculture. FAO has also piloted conjunctive use of groundwater and captured surface water to ensure reliability of water supply for rural communities, strengthening capacities through the establishment of communities of practice and empowering local beneficiaries for the operation and maintenance in pilot areas. FAO has a strong in-country presence and has established strong relationships with key local stakeholders. 8. UNDP has considerable experience of working with the MoE and has supported a number of environmental policy reform actions in Jordan, notably in the climate change sector. It assisted with the development of the Integrated Investment Framework for Sustainable Land Management (2013), formulation of a water sector policy for drought management (2018), development of the Nationally Appropriate Mitigation Actions (NAMA), a plan for the phased introduction of low-emission technologies and enhancing institutional capacities to reduce disaster risk and integrate climate change. It supported the Government of Jordan (GoJ) in developing the pioneering National Policy on Climate Change (2013) which formed the backbone for the Climate Change agenda in the country.  Moreover, UNDP has been supporting GoJ in the development of its national communication reports and Biennial Update reports which assist the country in mainstreaming and integration of climate change consideration into national and sectorial development policies. UNDP Jordan has been supporting climate change adaptation initiatives in accordance with international best practices to enhance sustainable water harvesting solutions as a mean to adapt to climate change impacts for local communities in different governorates in the country. The experience of UNDP has resulted in establishing network of partners that are working on water related issues. It is, therefore, intended to leverage the existing partnerships with different partners including private sector, research centres and civil society organizations to further advance water harvesting solutions in the targeted governorates by the project. UNDP with the support from the Goal Waters Programme has been working to strengthen the Drought Governance system in the country including the basin targeted by the project. 9. **Ministry of Water and Irrigation (MWI):** is the official body responsible for the overall monitoring of the water sector, water supply and wastewater system and the related projects, planning and management, the formulation of national water strategies and policies, research and development, information systems and procurement of financial resources. Its role also includes the provision of centralized water-related data, standardization and consolidation of data. 10. MWI was established in 1988 by-law issued by the executive branch of the Government under the Jordanian Constitution. The establishment of MWI was in response to Jordan’s recognition of the need for a more integrated approach to national water management. Since its establishment, MWI has been supported by several donor organization projects that have assisted in the development of water policy and water master planning as well as restructuring the water sector. Seven directorates under the direction of the Assistant Secretary Generals for Finance and Administration and Technical Affairs as well as two units for Legal Affairs and Project Finances directly subordinate to the Secretary General fulfil the said functions. Units for public relations, internal monitoring and water security and protection are directly subordinate to the Minister of Water and Irrigation with responsibilities overarching MWI, the Water Authority of Jordan (WAJ) and the Jordan Valley Authority (JVA) (Ministry By-Law No.52 of 1992). 11. MWI embraces the two most important entities dealing with water in Jordan: WAJ in charge of water & sewage systems and JVA responsible for the socio-economic development of the Jordan Rift Valley, including water development and distribution of irrigation. This relative position with respect to WAJ & JVA reinforces MWI's leading role as Jordan's lead entity on water issues. With its extensive Water Information System, MWI has become a leader in the region that uses GIS-based digital tools for Water Master Planning activities, offering the framework, databases and tools necessary to manage water data and providing water specialists with data and information for water sector monitoring, management and planning. MWI regularly produces essential water sector information products including the Water Master Plan. 12. **Ministry of Agriculture (MoA):** was established during the era of the East of Jordan in the formation of the thirteenth ministry in 1929. Legislation has been issued related to the agricultural sector since the beginning of the establishment of the emirate. The organization and management of the Ministry is Regulation No. 82 of 2004 and its amendments issued in accordance with Article 120 of the Constitution and its amendments. 13. MoA is responsible for the agricultural sector, promoting self-sufficiency and rural development and linking the production to the requirements of the markets inside and outside Jordan. It also aims to promote plant production, control plant pests, preserve forests and pastures, and also regulate the establishment of breeding farms or livestock holdings, poultry farms, fish farms, amphibians, fishing, beekeeping, animal health and veterinary quarantine, as well as the role of the Ministry in the protection of wild birds and wild animals. 14. MoA consists of thirty-eight directorates and a central unit, including two directorates linked to the Minister, the directorate of the Minister’s office and Directorate of Information, Communication and Parliamentary Affairs, Internal Control Unit, and Agricultural Risk Management Fund; six Assistance Secretary Generals, directorate of planning and institutional development, legal affairs unit, the directorate of the Secretary General’s office, directly linked to the Secretary General in addition to twelve governorate agriculture directorates and thirty directorates of agriculture in the governorate brigades. 15. **Ministry of Environment (MoE):** established in 2003, is the main ministry responsible for climate change policies. Within it, the Climate Change Directorate (CCD), established in 2014, is the institutional hub for coordinating and developing all activities related to UNFCCC. MoE oversees the policy and legal frameworks that guide climate change mitigation and adaptation efforts. The core responsibility of MoE, especially for the CCD, is to reach out to stakeholders to develop actions for climate response, and to incorporate the resulting policies into executive decision-making. It has become the focal point for international climate treaties, including the UNFCCC, and the development of the National Communication and the NDC to it. MoE also acts as Jordan’s National Designated Authority (NDA) for the Adaptation Fund and the Green Climate Fund (GCF). 16. The responsible EEs for each project component and activity are summarized in Table 7.   Table 7 Executing Entities per Activity   |  |  |  | | --- | --- | --- | | **Component** | **Activity** | **Executing Entity/ Co-Executing Entities** | | **Component 1** | Activity 1.1.1.1 | FAO | | Activity 1.1.1.2 | FAO | | Activity 1.1.1.3 | Host Country (MWI, MoA, MoE), FAO | | Activity 1.1.1.4 | UNDP | | Activity 1.1.1.5 | Host Country, UNDP | | Activity 1.1.1.6 | FAO | | Activity 1.1.2.1 | Host Country, FAO | | Activity 1.1.2.2 | FAO | | Activity 1.1.2.3 | FAO | | Activity 1.1.3.1 | Host Country , UNDP | | Activity 1.1.3.2 | Host Country , UNDP | | Activity 1.1.3.3 | UNDP | | **Component 2** | Activity 2.1.1.1 | FAO | | Activity 2.1.1.2 | FAO | | Activity 2.1.1.3 | FAO | | Activity 2.1.1.4 | Host Country, FAO | | Activity 2.1.1.5 | FAO | | Activity 2.1.1.6 | Host Country, FAO | | Activity 2.1.1.7 | FAO | | Activity 2.1.1.8 | FAO | | Activity 2.1.2.1 | FAO | | Activity 2.1.2.2 | Host Country | | Activity 2.1.3.1 | FAO | | Activity 2.1.3.2 | FAO | | Activity 2.1.3.3 | FAO | | Activity 2.1.3.4 | FAO | | Activity 2.1.3.5 | FAO | | Activity 2.1.4.1 | FAO | | Activity 2.1.4.2 | FAO | | **Component 3** | Activity 3.1.1.1 | FAO | | Activity 3.1.1.2 | FAO | | Activity 3.2.1.1 | FAO | | Activity 3.1.2.2 | FAO | | Activity 3.1.3.1 | FAO | | Activity 3.1.3.2 | FAO | | Activity 3.1.3.3 | FAO | | **PMC** | PMC | Host Country, UNDP, FAO |  1. Each of the reported EE is directly involved in supporting the country with its COVID-19 recovery plan. Each of the proposed investments will contribute to increasing job opportunities in target areas and in enhancing the capacity of households to apply the hygiene protocols established by the country and the WHO. 2. ***Project Steering Committee and Technical Oversight:*** At the level of strategic guidance and oversight, the project will use the National Climate Change Committee (NCCC) as its Steering Committee. The NCCC consists of 16 key Ministries including the Ministry of Environment (MoE), the Ministry of Water and Irrigation (MWI), the Ministry of Agriculture (MoA), the Ministry of Planning and International Cooperation (MoPIC), Ministry of Health, Ministry of Education and others. The Ministries are represented in the NCCC at the level of the Secretary General and meet on a quarterly basis. The NCCC ensures multi-sector coordination of all activities in Hashemite Kingdom related to climate change. The Commission is already operational and has a mandate to coordinate climate change activities across sectors and projects. It is expected that the NCCC will play a key role in the initiation of the policy reform agenda by ensuring coordination among institutional stakeholders and facilitating policy dialogue. A Technical Working Group (TWG) on adaptation has also been constituted by the Government of Jordan with 17 institutional members. In addition to some of those listed above, the TWG includes the Department of Statistics, the Jordan Metrological Department (JMD)**,** theRoyal Scientific Society, the Royal Academy for Nature Conservation, the Hashemite University (HU), the Jordan University of Science and Technology (JUST) and the National Agricultural Research Center (NARC). The TWG will support the coordination among institutional stakeholders and will support mainstreaming of practices and technologies across central and local institutions. Additionally, the TWG will be used for effective technical coordination and support as some of the members of the TWG such as JMD, NARC, JUST are also expected to play an important role in execution. 3. **Project Management Structure:** FAO will establish a Project Management Unit (PMU) nested in the Ministry of Environment which will provide regular reports and performance updates to the MoE. The PMU will be responsible for overall planning and coordination, developing annual work plans and budgets, day-to-day project management, provide technical backstopping, financial management and undertake procurement functions, project reporting and documentation. The PMU will be led by a Chief Technical Adviser (CTA) who will have overall responsibility for management and supervision of PMU staff and consultants on technical, administrative and operational aspects including procurement and financial management, Monitoring and Evaluation. Technical specialists such as a Water Engineer Specialist, an Agronomist and Climate Adaptation Specialist, Social Inclusion and Gender Specialist, Environment and Social Safeguards Specialist will support project the execution of the various component activities. The CTA will be supported by focal points/liaison officers from the MoE, MWI and MoA who will ensure that Government agencies provide the key staff and support required. The project will competitively select private sector firms for construction, civil society organizations for community mobilization and behaviour change and service providers for organizing events, capacity building and citizen engagement and communication campaigns. The selection of the firms will follow standard FAO and UNDP procurement processes in order to ensure the most efficient, cost-effective methods for the purchase of all goods and services under the project. 4. The three co-financing Ministries and UNDP will execute the activities that they have identified as part of the contribution to the project.  The responsibility of each of the EEs in project execution is described in the section below. Grievance redress mechanisms will ensure that all beneficiaries have a mechanism through a hotline or through e-mail for direct contact with NCCC, FAO or GCF. A quick review of the responsibilities assigned to different partners for each of the components and sub-components is given below;   Figure 2: Project Organizational Structure       1. ***Component 1: Climate resilient water systems*** has three outputs for which FAO and UNDP will assume very specific responsibility. A water infrastructure specialist based at the PMU in the MoE will take overall responsibility for planning and coordinating the activities in the component. FAO will implement the roof top water harvesting structures in municipal and public buildings and the expansion of the storage tanks in the waste water treatment plants. FAO will contract a private sector firm for the physical works on public buildings and the construction of the distribution networks for reclaimed water. A civil society organization will be hired competitively to develop the awareness raising campaign in schools among teachers and students. UNDP will undertake the execution of the roof-top water harvesting infrastructure at the household level and work closely with MWI to conduct the economic, technical and social feasibility assessment for the Landscape Resilience Plans[[23]](#footnote-23). UNDP and FAO will also contract with private sector contactors for the physical works and use a service provider to identify the households based on the selection and the financing criteria. UNDP will hire a civil society organization that will be responsible for the awareness raising campaign at the household level. UNDP will ensure that women are involved in providing their feedback on the design of the harvesting structures as the primary users of water. UNDP Jordan has in-house capacity with a team of engineers and procurement experts to design BOQ and process procurement of roof top harvesting activities at scale within a short time line. In the execution of the component, UNDP will use the opportunity to establish an internship programmes targeting youth to ensure knowledge sharing amongst local communities given that Jordan has one of the youngest population in the region with 63% of the population under 30 (DOS, 2019). UNDP will ensure strengthening the role the local NGOs/ CBOs with a focus on women association in the targeted governorates in executing some of the activities including outreach and awareness activities. Private sector suppliers of water saving gadgets and devices[[24]](#footnote-24) at the household and farm level will also be involved to ensure that they understand technical aspects and maintain adequate stocks of materials for scaling-up of the technology. Table 8 outlines the share of GCF financing that will be executed by FAO and UNDP;   Table 8: Share of GCF financing that will be executed by FAO and UNDP     1. **Component 2: Climate Change resilience for Enhanced Livelihoods and Food Security will be under the overall responsibility of FAO.** A Training Specialist will be recruited for the component who will plan and coordinate the activities under the component. The Farmer Field Schools and Field Days will be the overall responsibility of the Ministry of Agriculture who provide their extension agents as Master Trainers and Facilitators for implementing the activity. The National Agriculture Research Centre (NARC) will provide their technical knowledge about the adaptive technologies and practices developed by them for wider dissemination and use of their training centres and staff. The project will provide Technical Assistance to work closely with NARC to develop modules for the Farmer Field School and Field Days based on innovations available locally and internationally. The E-Extension services which are being implemented by the MoA under the MADAD project will be further strengthened by the project through the development of a smart application by a technical service provider. The application will allow interface with the e-extension and ICT4CA platforms of MoA, NARC and MoE and transmission of weather forecasts as well. The three Ministries will be responsible for developing the audio and video content on climate adaptation and dissemination from their own budgets as co-finance. The responsibility for implementing the sub-component on Women Change Agents will be undertaken by specific roles by several service providers; A local service provider will be recruited to select the women candidates as climate wise-agents. An international climate change specialist with a sound understanding of gender aspects will design the training module together with a University which will also be responsible for training of the women. The local service provider will also be responsible for guiding and monitoring the women wise climate agents and their deployment in the field. 2. **Component 3: Scaling-up climate adaptation:** The Chief Technical Advisor (CTA) will assume the main responsibility for execution of this component. Technical Assistance will be recruited to address the gaps in policy and regulatory frameworks that could have a direct bearing in the ability of the country to adapt to climate change. The TA will work closely with the TWG on Adaptation to identify specific policy measures apart from those which have already been identified and develop a policy matrix and the steps that need to be implemented in furthering the reform agenda. The TWG will assist in coordinating and moving the agenda forward. Technical Assistance will be hired for examining and updating the existing curriculum of relevant facilities in Universities and vocational institutions. The project will assist in the development of modules for incorporation and coordinate with the TWG to advocate the adoption of these in the educational and vocational institutions. Citizen Engagement regarding awareness of climate change adaptation aspects will be implemented through the hiring of a service provider through organization of events and fairs at the national level as well as in Governorates. The service provider will also organize awareness raising sessions and training for staff from local administration, private sector and civil society. 3. FAO will be the executing entity of the Project in Component 2, Component 3 and the following activities in Component 1: Activities 1.1.1.1, 1.1.1.2, 1.1.1.3 and 1.1.1.6 (Output 1.1.1) and Activities 1.1.2.1, 1.1.2.2 and 1.1.2.3 (Output 1.1.2). 4. UNDP will be the executing entity for Activities 1.1.1.4 and 1.1.1.5 (Output 1.1.1) and Activities 1.1.3.1, 1.1.3.2 and 1.1.3.3 (Output 1.1.3). 5. Concerning Government collaboration with the executing entity, MWI will be jointly contributing to Activities 1.1.1.3 and 1.1.1.5 (Output 1.1.1), Activity 1.1.2.1 (Output 1.1.2), Activities 1.1.3.1 and 1.1.3.2 (Output 1.1.3) and MoA will be contributing in Activities 2.1.1.4 and 2.1.1.6 (Output 2.1.1) and Activity 2.1.2.2 (Output 2.12). Finally, MoE will collaborate with the PMU. A detailed description of activities and executing entities responsibilities is presented in E6. |
| **B.5. Justification for GCF funding request (max. 1000 words, approximately 2 pages)** |
| 1. The country has demonstrated strong commitment to putting in place measures for climate mitigation and adaptation as evidenced by its plans and priorities identified in the INDC, NCCP, NAMAs, TNC and the NAP. These measures are critical to its survival and the sustainable development of the country. The MoE has taken a leadership role in instituting many policy and institutional changes in response to climate change. The MoE has been engaged with a range of readiness activities for GCF such as Strengthening its role as the NDA to deliver on the GCF Investment Framework, Improving Jordan’s Readiness to Access Finance for Climate Change and Green Growth in Jordan and has been involved with the preparation of the current project concept for the last several years. The prospect of financing from GCF has generated high level interest and commitment from key Ministries including MoPIC, MWI, MoA and also energized communities, local governments and NGOs consulted during the process of proposal preparation. The staff of MWI, the extension agents of MoA, the technical specialists at NARC as well as the field staff from WAJ are keen to participate in project activities and work closely with FAO and UNDP to enhance their technical capacity and provide them with the opportunity to enhance the resilience of rural communities. The prospect of GCF support has brought forth a strong commitment from all executing entities to work together and provide financial and in-kind contribution. The opportunity to access GCF resources has put the limelight on the MoE and enhance their commitment to build the country capacity for both adaptation and mitigation. 2. While the resources requested from GCF are not significant, they are expected to be catalytic in demonstrating adaptive practices and technologies, inculcating behavior change and bringing about a transformation in the manner in which Jordan plans, budgets for an implements climate adaptation. While the Hashemite Kingdom of Jordan is currently classified as an upper middle-income country [(World Bank, 2019)](https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups), this classification does not consider the burden the country is facing of hosting refugees and there is little indication at the moment of how the corona pandemic will impact its economic status. The country does not want to add to its debt burden and there are growing concerns about its public debt which increased to JD 29.51 billion at the end of July 2019 constituting 94.4 per cent of the estimated gross domestic product (GDP).[[25]](#footnote-25) In addition, the country’s economy and society have faced significant shocks in the past few years. The regional conflicts in Syria and Iraq, the country’s main trading partners, seriously damaged Jordan’s trade routes and capital inflows. The population of Jordan was estimated to be 10.2 million in March 2020 [(WorldoMeter, 2020)](https://www.worldometers.info/world-population/jordan-population/) including 1.3 million Syrian refugees[[26]](#footnote-26) and refugees from a host of other countries as well [(UNHCR, 2019)](https://reliefweb.int/sites/reliefweb.int/files/resources/69826.pdf). The influx of refugees continues to exert tremendous pressure on, not only its infrastructure and social services, but also on its labour market and social cohesion. As a result, the country’s macroeconomic indicators weakened, the fiscal deficit rose, and financing the external sector became challenging. GDP growth, which had averaged 6.4 percent during 2000–09, fell below 2.5 percent over 2010–18. Jordan is likely to continue to face considerable economic pressure to address the immediate humanitarian action, reducing overall public finance available to support planning and execution of Climate Change Adaptation (CCA). The investment by GCF is likely to demonstrate to decision-makers the high value added of investments to deal with climate change risks. 3. The proposed BRCCJ project is very important for helping rural households deal with climate risks in the water and agriculture sector. Despite its small contribution to national GDP, the agriculture sector is of critical importance in Jordan, for its socio-economic fabric, and role in political stability, as well as its central role in food security, rural development, providing job opportunities, and the forward and backward linkages it creates.[[27]](#footnote-27) Jordan currently imports the vast majority of its basic food crops, including almost all of its cereals. The request for financing to GCF is premised on the GoJ’s understanding that it needs to prioritize a series of measures and investments to deal with its vulnerability to climate change which further exacerbates its problems of water scarcity and rural growth and development. In recent years, the impact of flash floods on the all- important tourism sector that was evident in 2018 has also taken a toll on projected growth. Adverse impacts to the agricultural sector could significantly interfere with progress of the country related to poverty reduction, due to the greater dependence of the rural poor on the sector, their lower ability to adapt to climate change and the fact that the share of income of the poor spent on food is particularly high. Food security and rural economic growth are also expected to be adversely impacted. The COVID-19 pandemic is likely to worsen these pressures. 4. Reportedly [[Combaz, 2019](https://assets.publishing.service.gov.uk/media/5d30a131ed915d2ff003b781/619__Jordan_Environment_Policies_and_Engagemt.pdf)], climate adaptation and mitigation have proven challenging and remain highly conditional on the availability of financing and the lack of technical knowledge in the climate change domain. Current lack of finance is likely to impede implementation as Jordan’s general budget has chronically been in deficit. Given the funding gap between Jordan’s climate goals and its public finances, climate action will require a shift in national planning and budgeting (alongside international funding) [[Combaz, 2019](https://assets.publishing.service.gov.uk/media/5d30a131ed915d2ff003b781/619__Jordan_Environment_Policies_and_Engagemt.pdf)].The GoJ is seeking to secure a grant from GCF, given the vulnerable nature of the agricultural producers in the Dead Sea Basin. Without GCF involvement to complement ongoing efforts and address barriers to build resilience in the face of changing climate, the GoJ cannot take adequate steps to help diversify water supply sources, enhance water productivity, and support vulnerable farmers and help the most disadvantaged families disproportionately impacted by climate change. GCF support will enable additional investments that allow scaling up existing efforts for transformative and behavior change on a sustainable basis across the country for climate adaptation. GCF finances will encourage wider participation and involvement in adaptation and encourage practical action to adapt to increase resilience. The paradigm shift that the project will encourage will have a long term impact on institutions and policy that will strengthen the climate adaptation capability in the country. There are no existing donors willing to invest in the selected Governorates. Despite its resource constraints and the demands on its resource envelope, the Government will be providing USD 6.2 million in kind from its own budgetary sources by contributing staff time and the use of its facilities as well as financing for some key investments. FAO and UNDP have also committed USD 2.06 million from their own budgets of which USD 50,0000 from UNDP and USD 1,000,000 from FAO will be cash contribution. The GoJ is also contributing through tax exemptions on Goods and Services procured by the Project. This complementary contribution is estimated at USD 4.14 million. |
| **B.6. Exit strategy and sustainability (max. 500 words, approximately 1 page)** |
| 1. The proposed project has been designed in close consultation with and involvement of relevant government agencies, technical line departments and communities in the project area. This has ensured that the components and activities proposed are in line with national policies and strategies with strong country ownership and relevance for local communities. The project has a strong emphasis on capacity building of local and community institutions, awareness and training of vulnerable households and private sector’s actors in improved production and adaptation practices, strengthening of government capacity for delivering extension messages appropriate for adaptation, strengthening of policy and regulatory frameworks at the national level, institutionalization of the knowledge regarding adaptation to climate change in the educational curricula and engagement of private sector in the supply of the full range of technologies, inputs and innovations. These measures are designed to ensure that the results of the interventions are sustained beyond the project period by working on the demand side by enhancing awareness and supply side by creating links with private sector suppliers. The project will follow a demand-driven approach and expects that beneficiaries will contribute (i.e. component 1 activity 1.1.2) in the investment which will further ensure ownership of participating beneficiaries. The proposed strengthening of the coordination, knowledge generation, policy and regulatory mechanisms at the national level are expected to strengthen national capacity at the MoE, MWI and MoA to implement sector specific strategies more efficiently, while delivering on resilience to climate change. 2. All investments in water infrastructure will be undertaken in close collaboration with MWI, local entities and/or households. The roof-top water harvesting structures in public buildings will be maintained by the agency responsible for the operation and maintenance of the buildings. Individual households will maintain the roof-top water harvesting structures in their homes. Clear agreement and dedicated training on the responsibility for operation and maintenance will be determined as a key element for the selection of the investments in public infrastructure. At the household level, identified systems will only require basic maintenance (e.g. mesh filters, cleaning of the roofs, and checks on the diversion valve). Such actions do not require any specific skills and can be executed with no risk for the health or security of the person. In all cases the project, will: **A)** Provide beneficiaries with dedicated training and awareness on rain water harvesting and RWH system maintenance; **B)** Provide beneficiaries with specific operation and Maintenance (O&M) guidelines and schedule. These will guarantee an effective and efficient operation and maintenance of the system during and after the project. Concerning the distribution of reclaimed water, the MWI already operates and maintains the waste water treatment plants and will continue to do so with the expanded storage that will be implemented under the Project. The preparation of the Landscape Resilience Investment Plans is expected to be a tool for building MWI capacity for undertaking proper technical, economic and social assessments for their planning in the future and will help to make their future investments more sustainable. 3. The activities designed at the household level for improving adaptation strategies for farmers are designed with a very clear exit in mind. All support and training activities are for a discrete period of time, at least one crop season, or as in the case of the demonstration of a specific practice or technology, it will be designed with a specific learning objective in mind. The training modules will be designed in close collaboration with the participating households to ensure their relevance. The FFS and field days are expected to enhance the resilience of households to the changing climate scenarios and as such are likely to be more sustainable than existing practices. In addition, the lead farmers will be expected to become mentors for others who may not have directly participated in the FFS for demonstrating the impact of the adaptation practices and technologies on yields. The experience with FFS in the past has shown that lead farmers tend to play a very significant role in disseminating the practice to others. The e-extension system will be operated and maintained by the MoA (DG-Extension and NARC) and MoE. These agencies already have staff working on producing and disseminating extension materials and will continue to undertake this function with financing from Government resources. The women change agents will undergo a period of training and deployment with support from the project. However, each of them is expected to find sustainable means of income by using a host of different strategies; offering technical services to individual clients on payment or securing employment for herself with a civil society or private organization. 4. The project will provide technical assistance to address policy gaps and assist the government in undertaking the necessary actions to initiate policy reform and the regulatory mechanisms that are needed for its implementation. No policy measure will be taken forward without finding a champion for the reform within the NCCC. Once the policy measures are acted into legislation and the regulation approved, it is expected to be enforced by the appropriate regulatory agencies in the country. The introduction of both theoretical and practical knowledge about adaptive measures in the education curricula will only require initial investment in developing the modules and guiding the instructors on the most appropriate pedagogical tools. These will be thereafter implemented by the academic and vocational institutions as part of their regular course content. The awareness raising about climate change at the level of the local municipalities and administrative tiers is expected to galvanize action by these agencies and be incorporated in their planning and budgeting. The engagement of private sector will enhance their understanding of the types of equipment and inputs and technologies to promote which they are expected to take to scale because of the market demand. The awareness of civil society and citizen engagement is expected to lead to the promotion and awareness of adaptation measures and strategies as part of their field activities. |

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| **FINANCING INFORMATION** | | | | | | | | | | | |
| **C.1. Total financing** | | | | | | | | | | | |
| **(a) Requested GCF funding (i + ii + iii + iv + v + vi + vii)** | | **Total amount** | | | | | **Currency** | | | | |
| 25 | | | | | million USD ($) | | | | |
| **GCF financial instrument** | | **Amount** | | **Tenor** | | | **Grace period** | | **Pricing** | | |
| (i) | Senior loans | Enter amount | | Enter years | | | Enter years | | Enter % | | |
| (ii) | Subordinated loans | Enter amount | | Enter years | | | Enter years | | Enter % | | |
| (iii) | Equity | Enter amount | |  | | |  | | Enter % equity return | | |
| (iv) | Guarantees | Enter amount | | Enter years | | |  | |  | | |
| (v) | Reimbursable grants | Enter amount | |  | | |  | |  | | |
| (vi) | Grants | 25 | |  | | |  | |  | | |
| (vii) | Results-based payments | Enter amount | |  | | |  | |  | | |
| **(b) Co-financing information** | | **Total amount** | | | | | **Currency** | | | | |
| 8.25 | | | | | million USD ($) | | | | |
| **Name of institution** | | **Financial instrument** | **Amount** | | **Currency** | | **Tenor & grace** | **Pricing** | | **Seniority** | |
| GoJ-MWI | | In kind | 3.95 | | million USD ($) | | Enter years  Enter years | Enter% | | Options | |
| GoJ-MoA | | In kind | 1.86 | | million USD ($) | |  |  | |  | |
| GoJ-MoE | | In kind | 0.38 | | million USD ($) | |  |  | |  | |
| FAO | | In kind | 1.0 | | million USD ($) | | Enter years Enter years | Enter% | | Options | |
| UNDP | | In kind | 1.06 | | million USD ($) | | Enter years  Enter years | Enter% | | Options | |
| 1. **Total financing**   **(c) = (a)+(b)** | | **Amount** | | | | | **Currency** | | | | |
| 33.25 | | | | | million USD ($) | | | | |
| **(d) Other financing arrangements and contributions (max. 250 words, approximately 0.5 page)** | | The Government will be providing use of its staff and facilities for the execution of project activities as well as budget support for some of the roof-top harvesting from its Capital Investment Plan. MWI invests annually around JOD 29 million (USD 40 mn) as its capital investment in the water sector, some of it will be for direct investments in capital investments in the selected project Governorates. While the in-kind contribution from beneficiaries and local institutions has not been shown in the costing table, it is also expected that all participating households will contribute by purchasing gadgets and water saving devices for domestic use valued at close to USD 785,000 as well as direct contribution for roof top water harvesting at around USD 3.83 million.[[28]](#footnote-28) The specific Government contribution is shown in the Table 8 below;  Table 9: Contribution of Jordanian Partners   |  |  |  | | --- | --- | --- | | **Ministry** | **USD** | | | **MWI** | 3.947.331 | 64% | | **MoA** | 1.864.200 | 30% | | **MoE** | 380.000 | 6% | | **Total** | 6.191.531 | 100% | | | | | | | | | | |
| **C.2. Financing by component** | | | | | | | | | | | |
| 1. Total project costs amount to a total of US$ 33.25 million. The budget for the project comprises a GCF grant of US$ 25 million (75% of total project cost), Government of Jordan contribution of US$ 6.2 million (19%), and FAO and UNDP co-financing of USD 2.06 million (1 million and 1.06 million respectively, representing 6% of total costs). The current project is based on a request for a grant from the GCF. The beneficiaries are expected to provide leveraged finance of USD 4.6 million (as an investment in roof-top water harvesting systems and water saving devices and gadgets for domestic water conservation. This beneficiary contribution is considered parallel financing to leverage the set results of the Project and enhance the project sustainability. The following table illustrates Project costs by output and financer: FAO will be the executing entity of the Project except for Activities 1.1.1.4 and 1.1.1.5 (Output 1.1.1) and Activities 1.1.3.1, 1.1.3.2 and 1.1.3.3 (Output 1.1.3) where UNDP will be the executing entity. Concerning Government collaboration with the executing entity, MWI will be jointly contributing to Activities 1.1.1.3 and 1.1.1.5 (Output 1.1.1), Activity 1.1.2.1 (Output 1.1.2), Activities 1.1.3.1 and 1.1.3.2 (Output 1.1.3) and MoA will be contributing in Activities 2.1.1.4 and 2.1.1.6 (Output 2.1.1) and Activity 2.1.2.2 (Output 2.12). Finally, MoE will collaborate with the PMU. A detailed description of activities and executing entities responsibilities is presented in E6.   Table 10: Cost by Component and Financer   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Component** | **Output** | **Indicative cost** | **GCF financing** | | **Co-financing** | | | | USD | **Amount** | **Financial Instrument** | **Amount** | **Financial Instrument** | **Name of Institutions** | |  | USD | USD | | **COMPONENT 1: Climate resilient water systems** | Output 1.1.1 By year 7 at least 8250 buildings retrofitted with water harvesting structures | 14,351,749 | 11,553,405 | Grants | 485,000 | In-kind | UNDP | | 2,313,331 | In-kind | Government (MWI) | | Output 1.1.2 By year 7, reuse of reclaimed water from 3 Waste Water Plants is optimized | 3,585,700 | 2,151,700 | Grants | 1,434,000 | In kind | Government (MWI) | | Output 1.1.3 By year 4, Landscape Resilience Investment Plan for part of the Dead Sea Basin | 1,863,188 | 1,163,201 | Grants | 500,000 | In-kind | UNDP | | 199,987 | In kind | Government (MWI | | **COMPONENT 2: Climate Change resilience for Enhanced Livelihoods and Food Security** | Output 2.1.1 By year 7, 6,000 Farmers trained in climate resilient production practices through FFS (4050) and field days (1950) | 5,466,025 | 3,900,425 | Grants | 275,000 | In kind | FAO | | 1,290,600 | In kind | Government (MoA) | | Output 2.1.2 By year 7, 30 000 Farmers reached through e-extension | 823,600 | 50,000 | Grants | 773,600 | In kind | FAO | | Output 2.1.3 By year 3, 400 Women trained as Change Agents for Climate Adaptation | 980,250 | 880,250 | Grants | 100,000 | In-kind | FAO | | Output 2.1.4 By year 7, 15.000 Persons sensitized for climate adaptive measures | 748,752 | 748,752 | Grants | - |  |  | | **COMPONENT 3: Scaling-up climate adaptation** | Output 3.1.1. By year 6, specific policy and regulatory bottlenecks are identified and reforms initiated | 2,383,280 | 2,108,280 | Grants | 275,000 | In kind | FAO | | Output 3.1.2 By year 6 at least 6 national curricula of vocational schools (masonry, plumbery and agriculture) and of specialized universities (agriculture, architecture, water engineering) are updated to include climate smart agriculture, water efficiency and precision agriculture. | 625,000 | 550,000 | Grants | 75,000 | In kind | FAO | | Output 3.1.3 By year 7 at least 6440 persons (4 governorates, 16 provinces, 324 municipalities) and private sector engaged in climate change adaptation practices | 763,501 | 763,501 | Grants | - |  |  | | **Project Management** | | 1,660,486 | 1,130,486 | Grants | 75,000 | In kind | FAO | | 75,000 | In kind | UNDP | | 380,000 | In kind | Government (MoE | | **Indicative total cost** **(USD)** | | 33,251,531 | 25,000,000 | | 8,251,531 | | | | | | | | | | | | | | |
| **C.3 Capacity building and technology development/transfer (max. 250 words, approximately 0.5 page)** | | | | | | | | | | | |
| C.3.1 Does GCF funding finance capacity building activities? | | | | | | Yes  No | | | | | |
| C.3.2. Does GCF funding finance technology development/transfer? | | | | | | Yes  No | | | | | |
| 1. Based on identified lessons learned (Annex 2, pages 35🡪37) and following on the recommendation of the Paris Agreement[[29]](#footnote-29) on capacity building and development, the total GCF financing for capacity building and technology transfer is estimated at USD 2,938,451 and USD 15,178,830 respectively(Total USD 18,117,281) or 72% of the total GCF funding. The key technology transfer aspects (USD 15.178 mn) that will be promoted through the project include the dissemination of technologies such as roof-top water harvesting and adaptation technologies for the agriculture sector. Capacity building financed by GCF (USD 2.938 mn) for MWI including helping them with a more comprehensive and strategic approach to landscape investments. Training for MoA staff on extension approaches that enhance adoption rates, women climate change agents, students and private sector in understanding how to improve their technical capacity and skills for delivering services and technologies that help farming communities and households to become more resilient. The project also promotes the innovate approach of training women and deploying them in the field for communities. Table 10 below identifies the volume of financing in each component that is allocated for capacity building and technology transfer from the total budget and GCF.   Table 11: Financing for Capacity Building and Technology Transfer   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | **Total Cost** | | | | | **GCF Financing** | | | | | |  | **Total Amount (USD)** | **Capacity Building**  **(USD)** | **%** | **Technology Transfer**  **(USD)** | **%** | **Total Amount**  **(USD)** | **Capacity Building**  **USD)** | **%** | **Technology Transfer**  **(USD)** | **%** | | **Component 1** | $ 19,800,637 | $ 1,708,188 | 9 | $ 13,616,749 | 69 | $ 14,868,306 | $ 1,508,201 | 10 | $ 11,303,405 | 76 | | **Component 2** | $ 8,018,627 | $ 880,250 | 11 | $ 5,739,625 | 72 | $ 5,579,427 | $ 880,250 | 16 | $ 3,875,425 | 69 | | **Component 3** | $ 3,771,781 | $ 550,000 | 15 | $ - | - | $ 3,421,781 | $ 550,000 | 16 | $ - | - | | **PMU** | $ 1,660,486 |  | - |  | - | $ 1,130,486 |  | - |  | - | | **Total** | $ 33,251,531 | $ 3,138,138 | 9 | $ 19,356,374 | 58 | $ 25,000,000 | $ 2,938,451 | 11.75 | $ 15,178,830 | 61 | | Total GCF Capacity Building and TT | | | | | | | $18,117,281 |  |  |  | | | | | | | | | | | | |
| **D.EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA** | | | | | | | | | | |
|  | | | | | | | | | | |
| **D.1. Impact potential (max. 500 words, approximately 1 page)** | | | | | | | | | | |
| 1. Climate change has adversely impacted food security and economic growth in vulnerable rural areas in Jordan.[[30]](#footnote-30) The poor in rural areas are expected to face the most severe consequences of climate change through disruption of livelihoods especially for those that depend on agriculture and natural resources. The expected impacts of climate change, particularly the uncertain weather pattern and increased temperatures, threaten livelihoods and keep vulnerable people insecure. Poor families and households are the most vulnerable to the impacts of climate change.[[31]](#footnote-31) In addition, it is estimated that 18.6 percent of the country’s population experiences transient poverty.[[32]](#footnote-32) Those at the margins of the poverty line are the most vulnerable to climate risks. In addition, climate change is also impacting water security for both domestic and agriculture sectors. Water use in Jordan is evenly divided between agriculture (51%) and domestic sectors (45%).[[33]](#footnote-33) Climate change affects both sectors and can have particularly detrimental impact on women. 2. Research shows that the most significant issues Jordan will experience due to climate change are related to reduced access to water, directly and negatively impacting public health, agriculture and food security. In rural areas of Jordan, women are more vulnerable to the effects of climate change than men are, particularly because women are more dependent for their livelihoods on natural resources that are threatened by climate change.[[34]](#footnote-34) The project has the potential to make vulnerable households who suffer from water scarcity and livelihood vulnerability more resilient in facing the negative impacts of climate change. In particular, the project will focus on women and help to empower them to deal with climate risks and leverage their role as agents of change. The project has the potential to achieve two of the most significant fund level impacts namely; (i) increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions; and (ii) increased resilience of health and well-being, and food and water security. 3. The project’s specific outreach and fund level impacts are expected to include the following;  * 212,416 people-of which 47% will be direct and indirect women beneficiaries made aware of climate threats and related appropriate responses (Table 11 below and (Table 37 in Annex 2). * 83,743 people are expected to directly benefit from the project activities of which 33,684 or 40% are women beneficiaries. * 128,673, people are expected to indirectly benefit from the project activities of which 65,732 or 51% are expected to be women. * In the project area, the project is expected to benefit about 10% of the target population in the selected Governorates in the Dead Sea Basin and 2.1% of Jordan’s total population (PMF-A Core 1). * 20,550 people including 9,220 women benefitting from the adoption of diversified, climate resilient livelihood options (PMF.A.1.2) * 57,910 people including 28,212 women with year-round access to reliable and safe water supply despite climate shocks and stresses (PMF A 2.3)  1. The Fund Level Outcomes Expected from the project include the following;  * At least five discrete policy and regulatory measures introduced for the water and agriculture sectors which provide an incentive for climate resilience from which about 167,818 people (82,902 women) nation-wide are expected to benefit (PMF-A.5.1). * Increased use of climate information in water and agriculture sectors (PMF-A.6.1). * 30,000 household use climate smart mobile application or Information Communication Technology for Climate Adaptation (ICT4CA) (PMF-A..1) * 94,943 men and 39,914 women from *vulnerable households, communities, businesses and public-sector services use Fund-supported tools instruments, strategies and activities to respond to climate change and variability (PMF-A.7.1).* * 135,623 men and 57,020 women *made aware of climate threats and related appropriate responses (PMF-A.8.1).*   At least 6 technologies introduced for climate adaptation of which 5 are useful for women. (PMF-ACrC1).   1. The project will contribute to several SDG targets which include the following;  * SDG 1: supporting farmers to adopt new technologies and practices that will increase their capacity to produce better and more productive crops and *reduce poverty;* * SDG 2: *promoting sustainable agriculture and helping to reduce food insecurity and hunger;* * SDG 5; helping to empower women and enhance their capacity as agents of change thereby *reducing gender inequality;* * SDG 6: ensuring availability and *sustainable management of wate*r by reducing withdrawals from surface and groundwater and ensuring good ambient water quality; * SDG 11; making *human settlements resilient and sustainable* through climate adaptive planning and green * SDG 13; *strengthening resilience and adaptive capacity to climate-related hazards* through a range of adaptation strategies and activities.   Table 12: Expected Beneficiaries[[35]](#footnote-35)   |  |  |  |  | | --- | --- | --- | --- | | **Component 1** | **Units** | **People** | **Women** | | **Roof-Top water harvesting public buildings (Output 1.1.1)** | municipal staff and students | 10,000 | 5,000 | | **Roof-Top water harvesting at homes (Output 1.1.1)** | citizens | 43,175 | 21,328 | | **Waste Water Treatment plants (Output 1.1.2)** | Farmers | 968 |  | | Sub-total Component 1 |  | 54,143 | 26,328 | | **Component 2** |  |  |  | | **FFS Climate –Smart (Output 2.1.1)** | Farmers | 4,050 | 1,200 | | **Persons reached through E extension (Output 2.1.2)** | Farmers | 30,000 | 10,000 | | **Farmer Field Days (2.1.2)** | Farmers | 6,000 | 1,800 | | **Climate Wise Women (Output 2.1.3)** | women |  | 400 | | **Persons sensitized to climate adaptive measures** | people | 15,000 | 10,500 | | Sub-total Component 2 |  | 55,050 | 23,900 | | **Component 3** |  |  |  | | **Policy in the agriculture sector a (Output 3.1.1)** | Farmers | 167,818 | 82,902 | | **Climate Smart Agriculture in Universities (Output 3.1.2)** | Students | 5,000 | 1,500 | | **Climate Smart Agriculture in Vocational Institutes (Output 3.1.2)** | Students | 14,000 | 4,200 | | **Local Engagement and Dissemination (Output 3.1.3)** | citizens | 4,800 | 2,400 | | **Engagement of Local administration (Output 3.1.3)** | municipal staff | 640 | 192 | | **Engagement of private sector (Output 3.1.3)** | private sector | 1,000 | 100 | | **Civil Society Organizations** | CSO staff, CBOs and Community Members | 1,000 | 500 | | Sub-total Component 3 |  | 194,258 | 91,794 | |  | **Total** | **303,451** | **142,023** | | **Reduced by 30% to compensate for double counting** | Adjusted total | 212,416 | 99,416 | | | | | | | | | | | |
| **D.2. Paradigm shift potential (max. 500 words, approximately 1 page)** | | | | | | | | | | |
| 1. This project will shift the current paradigm in water use and management for agriculture and domestic needs from the current unsustainable and vulnerable to a system that is adaptive and resilient to the identified adverse impacts of the climate change. Such shift will happen at different levels: (i) household; (ii) farm; (iii) landscape level and (iv) national level. 2. At the household level, this paradigm shift involves changing the way in which people deal with increasingly unpredictable and scarce water resources (both for consumption and agricultural production). All household members both adults, women and children will be included in the awareness raising sessions regarding the necessity of using water more wisely and the imminent danger for future generations. This is expected to bring about a sustainable behavior change in the way all household members think about water and use it. The promotion of water harvesting and water saving practices through sustained behavior change at the household level is a cornerstone of Jordan’s strategy to reduce pressure on scarce freshwater resources, notably groundwater. While there are existing building codes which require installing water harvesting structures in new buildings, these are very recent and only implemented in Amman. The project will expand the use of rooftop rainwater harvesting structures in the selected Governorates to enhance the resilience of households to unpredictable and scarce freshwater resources. The project is promoting the use of these structure through its dissemination in public buildings, awareness raising campaigns and by incentivizing private households to invest through a grant based on a household’s vulnerability and economic profile. There is expected to be increased demand at the household level, which will, at the end of the project, be fully financed by the households themselves through hiring of private contractors on their own and purchasing the water saving gadgets and devices. The strengthening of the building codes and their enforcement in the project Governorates is expected to be a strong incentive to comply. The capacity of the private sector contractors to deliver water harvesting techniques will be enhanced through technical assistance and they are expected to be increasingly engaged in promoting the technology. 3. The project will shift the paradigm in the agriculture sector from looking at crop productivity per unit of land to crop productivity per unit of water. A sharper distinction will be made between water quality (saline, brackish, underground saline, brine, reclaimed, etc.) and how each quality can be more effectively used multiple times for suitable agriculture and aquaculture given the added stress caused due to change in temperatures and precipitation levels in many areas of the country, especially the Dead Sea Basin. These new practices are expected to be integrated into the manner in which farming households think about water and use it in the future. At the farm level, there is significant potential to promote a paradigm shift through the adoption of climate resilient practices. The project will contract MoA and provide it technical assistance to develop suitable extension materials to deliver appropriate messages to farmers and extension staff to begin the shift in thinking about how to better adapt to climate change. NARC has experimented with a range of climate adaptive techniques, technologies, and developed seed varieties of cereals and horticulture crops which are more drought resistant as well as a range of water saving technologies which have been tested and are ready for dissemination. Over the medium to long-term, this is expected to bring about a paradigm shift in the farming systems through adoption of these practices. Over time, the Government regulation and policy framework will also encourage these practices by putting in place appropriate incentives and restrictions on the use of groundwater. 4. At the landscape level, there is potential to promote a paradigm shift in the way investments to enhance resilience to extreme climate events are identified and prioritized. While the need to adapt to extreme events is clear, there is a lack of understanding of suitable sites for these interventions and lack of strategic planning and investments which are part of the MWI’s Capital investment Plan are made in an ad hoc and random manner. To address this key capacity gap, the project will use the development of the landscape investment plans as an entry point for strategic planning with the MWI. This element of the project emphasizes the importance of planning at the level of the hydrological basin for capitalizing on the impact of the investment in reduction of floods, maximizing ground water recharge, reduction in soil erosion and the positive impacts downstream. The development of the landscape resilience investment plans will lead to a paradigm shift in the way MWI identifies and prioritizes investments. MWI will move away from ad-hoc investment decisions towards holistic water planning for adaptation in the Dead Sea Basin with benefits for downstream areas. 5. At the national level, there is potential for a paradigm shift in climate policy and the regulatory framework to incentivize adaptation, protect vulnerable households from climate risk and incentivize transformative behavior change. While there is general awareness about the urgency of climate change adaptation in Jordan, there is need to address policy bottlenecks to promote the up-take of tools and practices that enhance climate resilience. The difficult policy issues which have to be negotiated include water tariffs, illegal water wells, green building codes, fodder subsidies and use of reclaimed water, etc. The Government’ strong current institutional infrastructure through the establishment of the NCCC and the TWG-A is very opportune and can be a powerful mechanism to initiate policy reform. There is also an opportunity for educational and vocational institutions to integrate climate risk understanding and adaptation in their curriculum to train the next round of professionals and skilled workforce. The private sector represents one of the most important and under-utilized market-driven opportunities to scale up the use of climate adaptive technologies, provision of services that could scale up the use of ICT4CA, climate information, digital financial and insurance services in the future. The project would capitalize on this opportunity be engaging the private sector in the project and enhance their awareness and understanding of the market opportunity that climate change adaptation represents. 6. At a broad social level, the project seeks to bring about change through gender transformative interventions which seek to transform gender roles and promote more gender-equitable relationships between men and women. Some of the activities that the project promotes such as deploying women change agents is likely to challenge the underlying perception regarding gender roles and inequality that is rooted in broad political, economic, and sociocultural structures. The gender-transformative approaches will seek to change rigid gender roles and relations and bring about change. This is critical at a time when the GoJ recognizes that depletion of natural resources and decreasing agricultural productivity may place additional burdens on women and may negatively impact their “health and reduce time available to participate in decision making processes and income generating activities.”[[36]](#footnote-36). | | | | | | | | | | |
| **D.3. Sustainable development (max. 500 words, approximately 1 page)** | | | | | | | | | | |
| 1. The project is expected to help realize wider benefits with respect to several of the Sustainable Development Goals. In the context of Jordan, helping vulnerable households adapt to climate change is expected to have an impact on their ability to combat poverty, hunger, enhanced health and well-being, improved health and sanitation, promote gender equality, reduce inequalities and promote climate action.   **Environmental co-benefits**   1. With respect to ecosystem health, the reuse of treated wastewater decreases use of scarce freshwater for irrigation, increasing water supply for aquatic ecosystems. It decreases the discharge of polluted waste water and contributes to decreased incidence of environmental pollution. Finally, the project is expected to achieve 3% to 3.5% reduction in groundwater overdraft and to contribute up to 4.5% to the water management goals in the National Water Strategy. Cumulative water savings are estimated at around 1.83 MCM in a 10-year period and 5.49 MCM for the project´s lifespan (30 years). In addition, 10,600 hectares of agricultural land area will be strengthened with climate-adaptive measures in the project area.   **Social and institutional co-benefits**   1. The BRCCJ will be implemented through a collective and community-based approach which promotes the organization of potential participants in groups for awareness raising as well as for organizing users of reclaimed water into water user associations and organize farmers into groups for the execution of the FFS for men and women. This is expected to increase the level of social cohesion in the communities where the project will be implemented. The project will also be developing special programmes for school children and teachers that agree to participate in RWH programme (Activity 1.1.1.4). The awareness among children is expected to generate additional benefits as young people are being recognized as the champions of climate change who will promote the climate change agenda as adults. 2. Additionally, investing in agriculture and water security of rural households will create new job opportunities in the construction sector (e.g. masonry and plumber) as well as in the private extension services one (e.g. irrigation management, agro-technology). Furthermore, households will dispose of an average of 15 m3 of additional water that will also contribute to maintaining personal hygiene standards and ensure a more effective and efficient contrast of COVD-19 at the household level.   **Economic co-benefits**   1. The project is expected to generate both quantitative and qualitative economic co-benefits. The benefits expected from each of the components are detailed in the sections below; 2. Under Component 1: Climate Resilient Water Systems: Output 1: a) 7850 private households saving USD 127 per year (30 m3 saved per HH) after implementing water saving devices and gadgets for home-consumption; b) 7,850 private households saving between USD 93 and USD 200 on purchasing water tankers in the absence of harvested rainwater (between 22 m3 and 47m3 saved per HH), depending on the rooftop area, tank size and rainfall levels; and c) 400 Public buildings saving between USD 363 and USD 585 of expenditure on purchased water in the absence of the harvested rainwater (between 87 m3 and 137 m3 saved). Output 2: a) 176 farmers generating around USD 620 of incremental income after benefiting from additional reclaimed water for agricultural production; and b) USD 210,000 saved per year due to the avoided cost of tertiary treatment of additional water storage in 3 Water Treatment Plants (for further details please see Annex 3. Economic and Financial analysis). 3. *Under Component 2: Climate Change resilience for Enhanced Livelihoods and Food Security: Benefits from the FFS and Field days are expected to lead to the adoption of technologies such as; a)* 1,425 farmers benefiting with a 30% increase in return to family labor due to the implementation of water saving and climate-adaptive technologies (improving yields and reducing the use of water and fertilizers); b) 525 women being reached to generate at least USD 130 additional value per year through the use of the new wicking beds technologies to produce herbs and vegetable beds in small- irrigated containers; c) 1260 farmers being trained to apply improved water management and climate adaptive techniques on 2520 hectares of fruits trees with between 22% to 43% additional profit margins per hectare; and d) 1950 farmers trained to apply improved water management and climate adaptive techniques on 6713 hectares of land under rain-fed crops that reports between 16% to 72% additional margins per hectare. 4. The increased availability of water from roof-top harvesting structures is expected to enable people to increase food production around the homesteads and improve nutrition, health and food security and generate co-benefits in terms of improved health and sanitation. The lack of water and secondary effects of these changes are considered as one of the highest threats to health in Jordan. In 2005, a WHO/UNEP project determining minimum water requirements for health in Jordan showed a linkage between the per capita water consumption and the incidence of diarrhea. The importance of washing hands to avoid the menace of coronavirus is a testament to the health impacts of increased water supply. The increased water availability from RWH is likely to generate improved health status of households, enhance hygiene – with subsequent reduction in the risk of disease transmission, reduce their health costs and reduce the pressure on Government health facilities. Other co-benefits will be generated in terms of increased business opportunities for entrepreneurs trained in installing RWH and the increased employment opportunities for the youth for employment in these enterprises. improved access to water harvested from the rooftop and reclaimed water: (i) economic impact of improved nutrition, health and food security; (ii) water subsidies public bill reduced; (iii) avoided downstream contamination from discharge of reclaimed water which has not undergone tertiary treatment. The investment in improved farming practices is also expected to generate additional benefits such as economic benefits of improved nutrition, health and food security, increasing productivity and reducing the amount of fertilizers used and the economic benefits of additional employments generated through the backward and forward multiplier effects in the project area.   ***Gender-sensitive development impact***   1. Gender-sensitive development impact is expected to reduce gender inequalities in climate change impacts. The project will expand women’s social and economic freedoms by focusing on their role as change agents, decision-makers and experts as well as increasing their access to resources required to meet their practical needs. It is expected that their participation in the project will serve to empower them, change societal perceptions and lead to their greater participation in other spheres of public and professional life. A cadre of young Climate Wise Women will be developed as advocates, repositories of knowledge and technical guidance to support climate change adaptation in communities and informed interlocutors to influence the climate change agenda. Women will constitute 50 percent of the trainers leading all the FFS. They will be involved as key decision-makers in the use of domestic water, they will be supported in  their role as farmers concerned with household food security through FFS tailored to their specific needs. An enabling environment for the recognition and expansion of women’s role in climate change resilience will be created by reviewing relevant policies from a gender perspective and ensuring their inclusion in consultations and knowledge dissemination events.  Young men will be involved through creation of employment opportunities in the project areas in vocational fields such as construction, plumbing and in private sector agencies selling water conservation technology and the use of inputs that are more water efficient, climate adaptive and lead to sustainable farming practices. | | | | | | | | | | |
| **D.4. Needs of recipient** **(max. 500 words, approximately 1 page)** | | | | | | | | | | |
| 1. Vulnerability of Jordan and beneficiary groups: Jordan is one of the most water scarce countries in the world[[37]](#footnote-37) and has a [ND-GAIN[[38]](#footnote-38) index ranking](https://gain.nd.edu/our-work/country-index/rankings/) of 85 out of 181 countries for climate vulnerability (ranking 1 being the least vulnerable). Most of the country (92%) can be considered arid to semi-arid, having an average precipitation of less than 200 millimeters. Consequently, the water sector is considered to be extremely vulnerable to climate change and the scarcity and variability of the resource to be one of the significant barriers for the sustainable development of the Kingdom.[[39]](#footnote-39) Rural poor across Jordan are the most vulnerable to CC due to their low adaptive capacity to the uncertain rainfall patterns and increase in temperatures. The small holder farmers in the South are highly dependent on rainfall. As it is, the poverty rate in the four Governorates in the project area is above the national average (13.3%), with 24.2% in Ma’an, 21.1% in Tafilah, 17.1% in Karak and 14.9% in Madaba.[[40]](#footnote-40) These rates have been further exacerbated over time. According to the most recent official estimates, poverty rates have increased to an estimated 20% in 2016.[[41]](#footnote-41) In addition, there is a large proportion of people who experience transient poverty and are especially vulnerable to climate risks. There is a critical need to help build the resilience of rural communities in the South and make them less vulnerable to climate threats. Additional details are available in Annex 2, section 1. 2. Economic and social development level of Jordan and affected population: Jordan’s economy and society have faced significant shocks in the past few years with the lockdown from COVID-19 being the latest setback. The regional conflicts in Syria and Iraq, the country’s main trading partners, have seriously damaged Jordan’s trade routes and capital inflows. As a result, the country’s macro-economic indicators weakened, the fiscal deficit rose, and financing the external sector became challenging. GDP growth, which had averaged 6.4 percent during 2000–09, fell below 2.5 percent over 2010–18 and is expected to stall in the aftermath of the pandemic. The official figures show that the poverty rate in 2017 was estimated to be 15.7% based on the Household Expenditure and Income Survey of 2017-18.[[42]](#footnote-42) The rate has increased compared with the previously published data on poverty of 2010 which reported that the proportion of households living below the poverty line was 14.4%. The influx of refugees, continues to exert tremendous pressure on the country’s natural resource base, water resources, infrastructure, social services and its labour market. The Government in increasingly concerned about the growing ranks of the unemployed. The unemployment rate is estimated to have reached 19.2% during the second quarter of 2019; (men 17.1%; and women 27.2% for females).[[43]](#footnote-43) Youth unemployment is reported to have reached as high as 40 percent. [[44]](#footnote-44) The country is taking some tough decisions to make the economy more business friendly and competitive, revive growth, and create jobs. The country needs assistance to build its resilience to climate change as it does not have the resources to undertake this investment on its own given the many challenges it faces. 3. While a National Adaptation Plan (NAP) clearly establishes objectives, key investment areas and potential pathways, the implementation is being jeopardized by the absence of public and private sources of financing. From the public perspective, the current context shows high fiscal imbalances and very high public debt (IMF Press Release n°19/435- November 2019). There was a recent cut on public investment as “efforts to broaden the tax base and mobilize revenues to support Jordan’s fiscal and development needs have fallen short of expectations”. In the same report, the IMF suggests that as the “fiscal space will be limited… further international assistance will be critical in allowing for continued growth-enhancing reform”. This urgent need was repeated (Press release n°20/26- January 2020)- when the IMF recently reached an Agreement with Jordan on a Four-year Extended Fund facility but states that “financing support from Jordan’s international partners will be critical to support the government’s reform efforts.” and “the hosting of Syrian refugees is a testament to Jordan’s generosity and resilience. Jordan is one of the few countries in the region with some measure of political stability. The situation is fragile and justifies the requirement of the highest level of concessional finance to help the country deal with its complex political, social and environment issues. 4. Needs for strengthening institutions and implementation capacity. There has been little examination of the existing policies and regulatory frameworks with regard to their impact on encouraging adaptation practices among farming communities and households. These include policies on subsidies of cereals, purchasing policies of grains, animal feed and agriculture inputs and the policy of tariffs and fee on energy, water and reclaimed water. The country needs assistance in examining these policies and regulations and assessing how they can become an incentive for increased adoption of adaptation technologies and practices. The academic and vocational training institutions in the country have not fully incorporated climate change into their curriculum and the skills that they impart. This needs to be undertaken to build the operational capacity of the country to implement adaptation measures. The local municipal level staff, civil society organizations, private sector organizations and citizens have limited opportunities to be fully aware of climate change scenarios and the coping strategies that need to be in place. The country needs to invest in these aspects of awareness raising and building capacity for increased resilience in the broad range of local institutions and private sector who will be called upon in the future to address climate risks. | | | | | | | | | | |
| **D.5. Country ownership** **(max. 500 words, approximately 1 page)** | | | | | | | | | | |
| 1. Jordan has displayed strong ownership and commitment to changing the business as usual scenario and take serious note of the climate change threats posed to the country. The Intended Nationally Determined Contribution (INDC) and the ***National Adaptation Plan*** (2020)[[45]](#footnote-45) which was recently issued, reaffirm the Government priorities to bringing about transformative change and lists many of the activities in the current project as key priorities including promoting gender equality and empowering women. The ownership of the Policy and the NAP is shared among several Ministries and partners in civil, private and academic sectors who are all represented in the National Committee on Climate Change (NCCC). The existing GCF country programme was adopted by the NCCC in its meeting in February 2020. Jordan is planning to review its NDCs in 2020 and this provides a great opportunity to link its NAP document to the revised NDCs. Jordan will undertake its Fourth National Communication (FNC) exercise in 2020 resulting in the launching of the FNC report in 2021. The MoE is now in the process of preparing a new policy on Climate Change as part of its FNC. 2. The MoE has also strengthened its internal capacity for climate change by establishing a climate change unit and so have the MoA and the MWI. These three key stakeholders identified focal points for the project who participated in the extensive process of consultation, demonstrating their commitment and ownership of the climate change agenda. The NCCC will act as the Project Steering Committee for the current project and facilitate its implementation. The NDA will play a coordinating role for presenting to the NCCC the policy change agenda identified by key stakeholders and initiating the requisite reform process. The NDA will be responsible for overall monitoring and supervision of the performance of the BRCCJ Project and the PMU will report directly to the MoE. 3. The current project is well aligned with the ***GCF country programme***[[46]](#footnote-46) which has identified adaptation priority projects centered around four components, namely; Water Resources and Water Security, Agriculture and Food Security; Ecosystems and Disaster Risk Reduction and Human Health. As a commitment to climate change and specific to the Green Climate Fund, several readiness activities have been approved and are in the process of being undertaken such as *Strengthening NDA of Jordan to deliver on GCF Investment Framework*, Delivery Partner United Nations Environment Programme (UNEP)(June 2017); 300,000 USD; *Improving Jordan’s Readiness to Access Finance for Climate Change and Green Growth in Jordan*, Delivery Partner: Global Green Growth Institute (GGGI)(July 2018); 660,000 USD. There are three regional grants which have been previously approved for the country but the *BRCCJ Project is the first and only country specific project which the MoE has included in the GCF Portfolio for submission during the first replenishment period of the GCF (2020-23).* This clearly demonstrates the GoJ’s commitment and ownership of the current submission. 4. The Accredited Entity (AE) for the project is the Food and Agriculture Organization of the United Nations, which is an international organization whose main goals are the eradication of hunger, food insecurity and malnutrition; the elimination of poverty and the sustainable management and utilization of natural resources. UNDP will undertake some key execution responsibilities for the project as an EE. Both UNDP and FAO have considerable experience in Jordan in promoting climate resilient and sustainable agriculture and food security. FAO and UNDP provide independent advice on technical issues and play a catalytic role based on their comparative advantage in providing high quality technical assistance and implementing innovative approaches. FAO is currently implementing a range of high impact projects in the country with financing from EU, the Government of Switzerland and others for climate change adaptation. UNDP is also in the process of implementing projects to assist with climate risks. FAO and UNDP have excellent relationship with the MoPIC and MoE. FAO is currently the lead coordinator for the UN Climate Action group consisting of seven agencies working on all aspects of Climate Change including WASH, DRR, Water re-use and Water efficiency in agriculture. The sector group liaises with the line ministries with a single voice to discuss challenges and gaps and will provide coordinated support to MoE in the development of the new Climate Change policy. FAO was registered as an Accredited Entity (AE) with the GCF on the 14th October 2016. Since then it has successfully submitted seven proposals to the GCF which are currently under implementation. FAO’s capacity for implementation is further strengthened by its technical expertise at its headquarters in Rome, its sub-regional office in Cairo and its country office in Amman. 5. There are a large number of civil society organizations which are involved with a range of initiatives with respect to natural resource management and climate change adaptation. NGO’s, grassroots movements and national organizations that represent local communities, farmers, women and other vulnerable groups such as the Jordan Environmental Society, Jordan River Foundation, Arab Women’s Organization, JOHUD, Jordan Cooperative Society, General Union of Jordanian Farmers, agricultural engineers association, etc., Many of the CSOs have recognized the threats emanating from climate change and need to enhance their capacity for climate change adaptation approaches and strategies. Consultations with these agencies has indicated a strong commitment to be involved in enhancing their awareness and capacity to undertake adaptation practices. 6. The NAP process included private sector in the NCCC and involved a range of entities that have leverage and represent the private sector such as the Jordan Chamber of Industry, Jordan Chamber of Commerce, Association of Banks, EDAMA Association, Jordan Green Building Council (JGBC) and others. The private sector encompasses a wide and varied range of companies and businesses from large multinationals to small businesses. During stakeholders’ consultations in Jordan's NAP process, the main barriers that emerged included lack of an enabling environment and market conditions as well as changing regulations which increase the risk for the private sector. The private sector is however gaining increased awareness of the benefits of engaging in climate change mitigation and adaptation as a viable business opportunity. The NAP views the private sector as a key interlocutor that can contribute to resilience by supplying the range of services required for climate change mitigation and adaptation such as renewable energy solutions, water saving irrigation technologies and other climate adaptive technologies and inputs. The private sector will also be expected to provide insurance services, ICT4CA solutions, digital financial services as opportunities for business promotion and resilience building. | | | | | | | | | | |
| **D.6. Efficiency and effectiveness** (**max. 500 words, approximately 1 page)** | | | | | | | | | | |
| **Financial and Economic Analysis**   1. An analysis of the Value for Money Metrics of the Project shows that the project investment is highly justified based on both financial and economic analysis (Annex 3: Economic and Financial analysis). A comparison of BRCCJ Project´s cost-effectiveness indicators with other GCF funded rural development projects in the region shows that it has a higher EIRR than most projects with a GCF cost per beneficiary of USD 117.70 and total cost per beneficiary of USD 156.50 which is well below the unit cost for similar projects (Annex 19, Section 3.6). The project is designed to stimulate demand for climate adaptation practices and technologies and is expected to attract and crowd in private sector investments for climate adaptation. 2. Financial profitability was assessed using twelve financial models that were developed based on the available climate-adaptive technologies for selected crops, taking into consideration their economic competitiveness in Jordan[[47]](#footnote-47) and the current cropping pattern in the four governorates. These are given in Table 12 below and used tomato, cucumber, grapes, olive trees, rain-fed barley and wheat given the range of improved technologies relevant for climate adaptation improving expected yields and margins compared to the baseline situation. Overall, all models show positive Net Present Values (NPV) and Financial Internal Rate of Return (FIRR) ranging from 17.5% to 63.9% and net present values (NPV) that vary from JOD 179 to JOD 14,668. Consequently, all models are considered profitable for a financial discount rate at 9%. Additionally, expected increases in returns to family labor range from 19% to 317%. The following list summarizes profitability indicators for all the financial models. The project also demonstrated an Economic rate of return of 24.1% after applying conversion factors to obtain economic prices, incorporating economic models to include benefits of water saving interventions and aggregating economic incremental benefits to be compared with total project costs (excluding investment costs already considered in the models in order to avoid double-counting). The NPV reaches US$ 80.16 million, and the Benefit Cost Ratio is 2.95, with an economic discount rate estimated at 4% (given the current Jordanian 10yr bond yields and the CBJ main interest rate), over the period of 30 years.   **Table 13. Financial Profitability indicators per model**   |  |  |  |  | | --- | --- | --- | --- | | **Item** | **FIRR**  **%** | **NPV**  **JOD** | **(%) incremental Returns to Family Labour** | | Rainfed Barley | 17.5% | 205 | 162% | | Rainfed Wheat | 18.7% | 212 | 85% | | Olive trees irrigated | n/a | 4,594 | 317% | | Olive trees non-I | n/a | 3,139 | 35% | | Grapes irrigated | n/a | 10,346 | 25% | | Tomatoes | n/a | 12,945 | 26% | | Wicking beds | 21.9% | 179 | 61% | | Grow-bag GH Tomatoes conv | 48.0% | 11,666 | 19% | | Grow-bag GH Tomatoes new | 30.3% | 6,807 | 46% | | Grow-bag GH Cucumber conv | 63.9% | 14,668 | 37% | | Grow-bag GH Cucumber new | 36.4% | 7,558 | 45% | | Alfalfa | n/a | 4,004 | 262% |   **Sensitivity analysis**   1. A sensitivity test was developed using different risk-occurrence scenarios. These included increase in project costs (10% and 20%), a reduction in project benefits (10% and 20%), and combined scenarios (of both benefits reduced by 10%, 20% and 30% and costs increased by 10% or 20%). Additionally, a delay in project benefits (1 and 2 years) and the reduction in benefits by 50% every 2 and 3 years due to the occurrence of climate change shocks were considered. NPV remains positive so the project is still considered to be profitable under the tested scenarios. Detailed assumptions and calculations are attached in Annex 3 and Annex 19. Table 13 below presents the main results of the sensitivity test. The analysis shows that the project is most sensitive to reduction in benefits.   Table 14 Sensitivity Analysis | | | | | | | | | | |

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| E.LOGICAL FRAMEWORK |
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| **E.1. Paradigm shift objectives** |
| Increased climate resilient sustainable development |

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| **E.2. Core indicator targets** | | |
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| E.2.4. Expected total number of direct and indirect beneficiaries, (disaggregated by sex) | Direct | 83,743  40% or 33,497 female |
| Indirect | 128,673  51% or 65,623 female |
| *.* | |
| E.2.5. Number of beneficiaries relative to total population (disaggregated by sex) | Direct | 83,743 (0.8% of country) 2% direct beneficiaries as proportion of female population and 10% as proportion of project area population and 34% as proportion of farming households in the project area. |
| Indirect | 128,673 (1.3% of country) 1.3% indirect beneficiaries as proportion of female population and 15% as proportion of project area population. |

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| **E.3. Fund-level impacts** | | | | | | |
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| **Expected Results** | **Indicator** | **Means of Verification (MoV)** | **Baseline** | **Target** | | **Assumptions** |
| Mid-term | Final |
| *A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions* | *A1.2 Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options (including fisheries, agriculture, tourism, etc.)* | Reports from Independent and external household surveys in year 0 and 7. | 0 | 5,138 people  (3,193 men and 1945 women) | 20,550 people  (12,770 men and 7,780 women) | Economic social and political situation in the Country and in target areas remains stable.  It is assumed that 4050 of those in FFS and 50% of those in the field days and 25% of those receiving e-extension and 40% of those reached by climate wise women adopt a resilient practice, input or technology. |
| *A2.0 Increased resilience of health and well-being, and food and water security* | *A2.3 Number of males and females with yearround access to reliable and safe water supply despite climate shocks and stresses* | Reports from Independent and external household surveys for hhs fitted with RWH structures and water saving devices in year 3 and 7. | 3,767 people  (1884 men and 1884 women) | 16,308 people  (8,154 men and 8,154 women) | 57,910 people  (28,955 men and 28,955 women) | Absence of major natural disaster in the country and in target areas  It is expected that all those using public buildings, receiving support from RWH, WWT benefit from year round access plus baseline. |

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| **E.4. Fund-level outcomes** | | | | | | |
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| **Expected Outcomes** | **Indicator** | **Means of Verification (MoV)** | **Baseline** | **Target** | | **Assumptions** |
| Mid-term | Final |
| A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development | *A5.1 Institutional and regulatory systems that improve incentives for climate resilience and their effective implementation* | Official Report by Monitoring and Learning (MRL) Reports of the National Adaptation Plan by Climate Directorate of MoE. | 1 the country disposes of standards for reclaimed water from waste water harvesting plants  0 RWH incentive mechanisms is currently in place | (2)  Incentives to scale-up adoption of RWH through grants for installation, integration of water saving devices and; upgrading f standards for the use of reclaimed water. . | (6)  Incentives to scale-up adoption of drought tolerant grains and fruits; and  water optimization technologies. | Economic, social and political situation in the country and in target areas remains stable.  There is political appetite for reform.  Incentives and Standards will be prepared jointly with the Ministry of Water and Irrigation, the Ministry of Finance and the Ministry of Environment. Both will be prepared according to the principles stated in the national strategies. |
| A6.0 Increased generation and use of climate information in decision-making | *A6.1 Use of climate information products/services in decision-making in climate sensitive sectors* | Reports from Independent and external surveys on use of climate information. | 0 | 10,000 hhs use climate smart mobile application (ICT4CA) of which at least 70% use the information and .  28,000 ha of arable land is farmed applying introduced practices. | 30,000 hhs use climate smart mobile application (ICT4CA). of which at least 70% use the information and .  84,000 ha of arable land is farmed applying introduced practices. | Absence of major natural disaster in the country and in target areas.  The project will support the Ministry of Agriculture the Ministry of Environment and the National Center for Agriculture research.in reaching out farmers. Reported ministries will disseminate via radio/media/social media and an app climate information and climate smart |
| A7.0 Strengthened adaptive capacity and reduced exposure to climate risks | *A7.1 Use by vulnerable households, communities, businesses and public-sector services of Fund-supported tools instruments, strategies and activities to respond to climate change and variability* | Reports from Independent and external household surveys  Annual Performance Reports | 0 | 5,138  (3,193 men and 1,945 women) increase their adaptive capacity | 20,550  (12,770 men and 7,780 women) increase their adaptive capacity | Assuming the project is implemented on time.  Assuming the private sector is able to upscale and replicate the technologies and inputs introduced. |
| A8.0 Strengthened awareness of climate threats and risk-reduction processes | *A8.1 Number of males and females made aware of climate threats and related appropriate responses* | Reports from Independent and external household surveys  Reports by Service providers and IPs.  Annual Performance Reports | Limited systematic awareness about climate change threats and responses. | 33,908 people  (19,653 men and 14,255 women) made more aware of which 80% report that they are now aware about climate risks and have strategies to deal with them. | 135,633 people (78,613 men and 57,020 women)  made more aware of which 80% report that they are now aware about climate risks and have strategies to deal with them. | Assuming that all participants in project activities are made aware of climate risks. |

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| **E.5. Project performance indicators** | | | | | | | | | |
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| **Expected Results** | **Indicator** | | **Means of Verification (MoV)** | **Baseline** | | **Target** | | | **Assumptions** |
| Mid-term | Final | |
|  | Increased diversity products grown from home-gardens in target areas | | Reports from Independent and external household surveys  Annual Performance Reports  Reports by SPs. | 2 | | 3 | 6 | | Beneficiaries will dispose of additional water sources to cover basic domestic needs (i.e. hygiene) and to irrigate home-gardens where currently. Households will be able to improve irrigation the existing crops (average hh plant olive trees and thyme) and increase the diversity of crops to at least 6 by the end of the project (e.g. olive oil, thyme, tomato, lady fingers, sage, rosemary).. |
| Component 1: Expected Result 1: Enhanced water availability to address climate change risks | No of people with increased access to water in target areas. | | 3,767 people | | 16,308 people | 57,910 people | | Project is initiated according to planned timelines and there are no political, economic or health risks that stall progress.  Resilience will be based on [RIMA II](http://www.fao.org/3/a-i5665e.pdf) methodology that was created by FAO and that considers the combined effect of climate changes, economic  forces and social conditions.  Assuming that 70% of those who become aware adopt a practice that makes them resilient. |
| Component 2: *Expected Results 2: Enhanced capacity of people to deal with climate change risks.* | Number of people who report increased resilience to climate risks*.* | | Reports from Independent and external household surveys.  RIMA II Index Value[[48]](#footnote-48) (Resilience Composite Index – RCI) against the project's baseline. | 0 | | 23,736 people | 94,943 people | |
| Component 3: *Expected Results 3: Gender sensitive resilience tools and practices to adapt to climate change are mainstreamed into the national policy, educational, administrative and social frameworks* | *No of University (U) and vocational training institutes’ (VTI) curricula incorporating climate change adaptation.* | | Official publication from partners (University and MoE) in the respective websites reporting the new curricula | 0 | | 4[[49]](#footnote-49) | 6[[50]](#footnote-50) | | The project will sign in (Y1) an MOU with universities and with the Ministry of Education and VTI . The new curricula will include climate awareness, risk analysis adaptation and mitigation approaches and strategies.  . |
| *No of local level public functionaries trained and capacitated in climate change management planning and budgeting.* | | Annual Performance Reports informed by independent external surveys (y4, Y8) of institutions in target areas | 0 | | At least  160 | At least  344 | | The project will sign a MOU with each project governorate and target key administrative tiers (4 governorates, 16 provinces and 324 municipalities).  Absence of political, economic or health risks that stall progress |
| *No of civil society organizations that are adopting the climate adaptation approaches introduced by the project.* | | Annual Performance Reports informed by  independent external surveys (y4, Y8) of CSOs in target areas. | 0 | | At least 5 CSOs | At least  15 CSOs | | The project will involve key CSOs active in target areas regardless of their mandate to ensure mainstreaming of adaptation measures.  Absence of political, economic or health risks that stall progress |
| *No of private sector actors/companies that provide climate resilience technologies and inputs.* | | Annual Performance Reports informed by independent external surveys (y4, Y8) of private sector in target areas | 0 | | 81 | 162 | | The project will target registered companies in collaboration with the Ministry of Trade and Chamber of Commerce.  Absence of political, economic or health risks that stall progress. |
| **E.6. Activities** | | | | | | | | | |
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| **Activity** | | **Description** | | | **Sub-activities** | | | **Deliverables** | |
| Component 1: Making Water Systems Climate resilient | | | | | | | | | |
| Activity 1.1.1.1 Provide Technical assistance and oversight for water resilient systems | | A team of technical specialists comprising a water engineer and an M&E specialist will provide guidance to MWI and oversight of service providers on all technical aspects of component 1 | | | * *Consultation and continued dialogue with national and district-level administrative bodies* * *Random inspections to project sites to ensure delivery to beneficiaries identified* * *Development of gender-sensitive knowledge products describing project design, approach and achievements* | | | At least 14 random inspections made by year 7  2 surveys made by year 7  2 knowledge products by year 7 | |
| Activity 1.1.1.2 Selection of public buildings and awareness on water conservation schools and municipal officials | | The PMU will contract a service provider to pilot and implement a gender sensitive methodology to select public buildings where rooftop rainwater harvesting systems will be installed. The service provider will also be in charge of developing and implementing campaigns in the targeted public buildings especially in schools to raise awareness about the functioning and benefits of rooftop rainwater harvesting tanks and inculcating behavior change in water use. | | | * *Identify target public buildings where rainwater harvesting systems and water saving devices will be installed* * *Carry out one gender sensitive campaign to raise awareness about the importance of harvesting and saving water among the users of public buildings, to make sure that users are aware of the usefulness and intended impact of the proposed intervention* | | | 1 awareness raising campaign delivered to users of targeted public buildings | |
| Activity 1.1.1.3 Construction of Rooftop rainwater harvesting system in public buildings | | This entails the construction of rooftop rainwater harvesting systems and the installation of water saving devices in public buildings | | | * *Construction of rooftop rainwater harvesting systems* * *Installation of water saving devices* * *Random inspections by PMU to ensure that construction is taking place at targeted buildings* * *Mobilize MWI staff to supervise and certify construction* | | | 400 public buildings fitted by year 7 | |
| Activity 1.1.1.4 Select beneficiaries, provide orientation on water conservation to households | | The PMU will contract a service provider to implement a methodology to select households where rooftop rainwater harvesting systems will be installed.  The service provider will also be in charge of developing and implementing campaigns in all households to raise awareness on the operation and benefits of rooftop rainwater harvesting well as efficient use of water and inculcating long-term behavior change. Women headed households will be especially identified. | | | * *Identify target households where rainwater harvesting systems and water saving devices will be installed* * *Carry out gender-sensitive campaigns to raise awareness about the importance of harvesting and saving water in the targeted households, to make sure that beneficiaries are aware of the benefit of the proposed systems and how to operate these systems properly* * *Consult women in target households while designing and selection of materials and location of outlets of rainwater harvesting systems to ensure that system responds to their needs and minimizes labour.* | | | 1 gender-sensitive awareness raising campaign delivered to beneficiaries in targeted households | |
| Activity 1.1.1.5 Construction of Rooftop rainwater harvesting system in households | | This entails the construction of rooftop rainwater harvesting systems and the installation of water saving devices in private households as well as ensuring that women are consulted during construction and installation as the primary users of domestic water. | | | * *Construction of rooftop rainwater harvesting systems* * *Installation of water saving devices by households.* * *Random inspections by PMU to ensure that construction is taking place in targeted households following design specifications and requirements including consultations with women* * *Mobilize MWI staff to supervise and certify construction and ensure that beneficiaries are trained on the use of the systems.* | | | 7,850 households fitted by year 7 | |
| Activity 1.1.1.6 Independent Impact assessment for component 1 | | The PMU will contract and supervise a service provider to conduct an independent impact assessment to determine the impact on HHs especially women. | | | * *The service provider conducts an independent sex-disaggregated, gender-sensitive impact assessment of the activities 1.1.1.1 to 1.1.1.5* | | | 1 overall impact assessment by year 4  1 impact assessment by year 7 | |
| Activity 1.1.2.1 Build storage and distribution infrastructure to maximize reuse of reclaimed water from existing WWT plants | | New reservoirs and distribution systems constructed to maximize the reuse of reclaimed water produced by existing WWT. The reservoirs allow for storing the reclaimed water produced during the winter months to meet water demands during the summer months. The distribution and use of the reclaimed water for irrigation will follow established procedures of the MWI, including the Jordanian Standard for Reuse of Reclaimed Water which defines the type of crops (Field Crops, Industrial Crops and Forest Trees) that can be irrigated with reclaimed water. Women members of HHs will be included in areas where women play a role in the use of reclaimed water. | | | * *Carry out site inspections at WWT to check proposed reservoir sizes and extent of distribution networks* * *Develop terms of reference for a service provider to build reservoirs and distributions systems according to specifications* * *Contract a service provider.* * *Construction of storage and distribution infrastructure to maximize reuse* * *Mobilize MWI staff to supervise and certify construction.* | | | 3 reservoirs to store reclaimed water constructed and at least 3km of water distribution systems installed by year 7 | |
| Activity 1.1.2.2 Technical assistance to MWI and Ministry of Health to assure compliance with environmental standards | | Given the moderate environmental risks linked with the reuse of reclaimed water, this activity aims to assure compliance with Jordanian environmental standards for reuse of reclaimed water. To this end, the activity carries out periodic testing the quality of the reclaimed water stored and also the soil quality of areas where the reclaimed water is applied. | | | * *Develop terms of reference for a service provider to carry out regular inspections, sampling and laboratory testing of the water and soil quality around the targeted WWT* * *Contract a service provider*  *to carry out regular inspections, sampling and laboratory testing of the water and soil quality around the targeted WWT* * *Communicate results to WWT plant operators, MWI and Ministry of Health.* | | | At least 63 soil and water samples collected and tested by year 7 | |
| Activity 1.1.2.3 Technical assistance to promote demand and safe reuse of reclaimed water, including building local capacity of farmers and Water User Associations | | This activity promotes safe reuse of reclaimed water among target beneficiaries (farms surrounding wastewater treatment plants), including building local capacity of farmers especially ensuring the inclusion of women in areas where they are involved in agriculture. | | | * *Develop Tors.* * *Contract a service provider* * *Develop gender-sensitive communication and outreach material to promote demand and safe reuse of reclaimed water among beneficiaries including both men and women.* * *Ensure continuous communication between MWI, WWT plant operators and farmers* | | | At least 4 Water User Associations trained on safe reuse of reclaimed water with inclusion of women and men from the same land-owning household. | |
| Activity 1.1.3.1 Establish plan objectives and criteria | | A service provider is contracted to work closely with an international water specialist to establish plan objectives and criteria for selecting and prioritizing interventions. This *a priori* definition of decision criteria will be based on an elicitation of involved stakeholders, which will be identified through a stakeholder mapping exercise carried out by the service provider. At the broadest level, the plans aim to identify priority interventions to increase landscape resilience through enhanced groundwater recharge and reduced flash flood risk | | | * *International water specialist liaises with PMU to developed ToR for service provider* * *Contract service provider* * *Carry out a stakeholder mapping exercise to identify involved stakeholders among government, civil society, private sector and water user associations with a focus on the inclusion of women* * *Elicit plan objectives and decision criteria from relevant stakeholders from national government agencies and ministries* * *Develop a set of plan objectives and criteria including interventions prioritized by women* * *Initiate development of landscape resilience investment plan for the project area* | | | 1 set of gender-sensitive criteria and objectives for the landscape resilience investment plans established | |
| Activity 1.1.3.2 Execute technical, economic, environmental and social feasibility studies for the development of Landscape Resilience Investment Plans. | | This activity is the core of the landscape resilience investment plans, and consists of the development of technical feasibility studies for the project area including social and environmental plans. The consultation with women will be considered key during the preparation of the plans. This activity contributes to a strategic planning framework for the CIPs of the MWI | | | * *Prepare a list of preliminary actions including consultations with communities including both men and women.* * *Assesses feasibility of proposed preliminary actions, relying on multiple data sources and on advice from international water specialist* * *Define a portfolio of interventions which meet plan criteria and are feasible* | | | 1 landscape resilience investment plan completed | |
| Activity 1.1.3.3 Disseminate and validate investment Plan | | Working closely with PMU and the international specialist, the service provider develops a plan to disseminate results from the investment plans. This includes workshops with interested stakeholders from local and national government bodies, civil society, the private sector including men and women in the catchment area. The outreach activity also involves reaching out to donors and financiers who will help to identify potential opportunities to finance the investment priorities identified in the report | | | * *Prepare dissemination and outreach material based on findings from landscape resilience investment plans* * *Organize and publicize dissemination and validation workshops* * *Dissemination and validation workshops in each of the four project governorates with inclusion of women.* * *Invite donors and financiers at roundtables to discuss investment priorities identified in the landscape resilience investment plans and pin-down potential sources of funding* | | | 4 dissemination and validation workshops and 2 roundtables with donors and financiers | |
| Component 2: Climate Change resilience for Enhanced Livelihoods and Food Security | | | | | | | | | |
| Activity | | Description | | | Sub-activities | | | Deliverables | |
| Activity 2.1.1.1 Provide Technical assistance and oversight for climate change adaptation | | The PMU will competitively procure the services of a Climate Change Adaptation specialist to organize and plan all the activities associated with this component. | | | *Prepare TORs for the Specialist with specific requirements for mainstreaming gender by consulting women farmers.*  *Advertise and Procure the services* | | | An agronomist/climate change adaptation specialist is recruited. | |
| Activity 2.1.1.2 Design appropriate modules for Climate Smart FFS | | This activity is designed to develop the modules for the Farmer Field Schools in a participatory manner. The modules will be designed in a manner that is gender sensitive so that the role of men and women are both addressed in the development of the modules. The topics will be chosen based on those which are relevant for climate change adaptation and keep in mind the cropping pattern in the selected area. Climate smart-FFS for women customized to suit women’s specific needs (homestead gardens, medicinal plants and herbs, small-scale water efficient technologies etc ) and preferences in terms of frequency, duration, timing, location will be separately designed. | | | Identify in consultation with NARC, MoA, local extension staff and farmers both men and women in identifying the most appropriate modules topics, location, duration, timing, frequency, etc., International and local consultants will be paired to select topics, develop the lesson plans, determine the duration, the inputs required, develop the training materials required and the implementation plan for the different modules. A two-year plan will be developed at the start with two subsequent year plans made at the end of each two-year period. | | | 6 modules developed for conducting FFS | |
| Activity 2.1.1.3 Training a team of Master Trainers/Facilitators | | Extension staff from the four selected Governorates and from some of the adjoining districts in the Dead Sea Basin will be selected for training as Master Trainers to conduct the FFS. | | | * *Select the candidates from the extension staff (50% women) interested in conducting FFS.* * *Make a training calendar for their training in both theoretical and practical aspects.* * *Determine the venue and conduct the training.* * *Organize refresher training in year 4 and replace any drop-outs.* | | | 40 Master Trainers of whom atleast 20 will be women | |
| Activity 2.1.1.4 Identify target groups in Project Area | | Identification of men and women candidates for the training based on a criteria that measures climate change risk, relevance of the training based on crops grown, commitment to complete the course. | | | *Extension staff will conduct a survey of households and identify men and women interested in the training based on the targets for each year and register them in clusters based on proximity. The candidates will be informed of training calendar, training duration and topics.* | | | Identification of 4050 candidates for training of whom 1050 will be women. | |
| Activity 2.1.1.5 Scaling-up FAO mobile geo-referenced monitoring application of adoption rates | | The application is designed to provide an efficient system for collection of adoption rates of adaptation practices and technologies. | | | * *The selected master trainers will be provided the FAO application and trained in its use.* * *The Master Trainers will collect the information at the end of the first year of training and monitor adoption rates on an annual basis.* | | | Trend analysis of adoption rates of climate adaptive technologies and practices. | |
| Activity 2.1.1.6 Conduct Climate Smart FFS | | Famer Field schools are a gathering of 10 to 20 people for the duration of a crop cycle or for a longer period depending on what is being demonstrated. The FFS has proved to be an effective methodology for getting farmers together to work on the farmer’s field in groups for learning and sharing a range of crop technologies and practices. The project will organize FFS in the four project Governorates with an average of 15 participants each. | | | * *The training plan at the start of each year will be developed for planning and budgeting purposes.* * *Training venue will be identified with suitable logistics and refreshments.* * *Facilitators will be selected and provided with logistics.* * *Required Inputs and training materials will be made available* * *Trainees will be evaluated at the end.* * *Certificates will be prepared and awarded to participants.* * *Trainees will give their feedback on the session which will be recorded and reported.*   *.* | | | 270 FFS sessions of which 70 exclusively for women. | |
| Activity 2.1.1.7 Field demonstration of tested climate-adaptive innovation and practices | | Field days are a short one-or-two- hour sessions held at a public place that are used to demonstrate new technologies and practices. NARC has used this effectively for transfer of technology. | | | * *Identify the technology or the practice to be demonstrated.* * *Make an annual field demonstration plan as part of the AWPB and submit for approval.* * *Publicize the event at least two weeks in advance with the venue identified.* * *Inform extension staff and NAC centres about the event.* * *Arrange logistics and demonstrate the new practice or technology.* * *Record the attendance and obtain beneficiary feedback.* * *Report the event and track beneficiary feedback at the event.* | | | 6000 men and women farmers participate in field days that demonstrate climate adaptive practices with a minimum of 1200 women. | |
| Activity 2.1.1.8 Independent Impact assessment for C2 | | A Third-Party assessment of the FFS, field days to assess beneficiary feedback, adoption rates and impact on climate adaptation disaggregated by sex. | | | *Prepare Terms of Reference*  *For the competitive procurement of the services of an Independent Evaluator* specifying requirement for gender-sensitive impact assessment report with sex-disaggregated data  *Conduct the assessment in Year 7.* | | | Independent Impact Assessment Report. | |
| Activity 2.1.2.1 Developing climate-smart IT solutions for smart devices | | The MOA, NARC and MoE are increasingly relying on information technology for dissemination of extension messages. The e-extension platform can also be used for outreach at scale for climate adaptation messages and technology transfer at the national level. | | | *Recruit a technical specialist to review the platforms being used by the MoA, NARC and MoE.*  *Develop an application which is compatible with the ICT systems being used by the MoA and MoE.* | | | A smart application for transfer of knowledge using ICT4CA. | |
| Activity 2.1.2.2 Disseminating climate smart-solutions and weather forecast through smart devices | | Gender-sensitive video and audio content will be developed by the MoA and MoE including weather information that is useful for farmer and disseminated through the smart application developed with assistance from the project.. | | | * *Identification of technologies that are ready for dissemination.* * *Preparation of gender-responsive messages in the appropriate sound-byte or video content for transmission in consultation with women.* * *Pilot testing of messages through audience (women and men) feedback.* * *Refinement of messages and dissemination.* | | | Audio and video messages transmitted nation- wide. | |
| Activity 2.1.3.1 Technical assistance in climate adaptive agriculture | | Technical assistance will be procured for development of a short-course for training of climate wise-women as change agents. | | | * *Development of TORs for the international and local expert.* * *Recruitment of an international and local consultant for development of the course for Master trainers for women agents.* * *Conduct field visits to assess the key issues in adaptation for women* * *Develop the course and field test it.* | | | Training course for training of women Master trainers | |
| Activity 2.1.3.2 Development of training manuals and certification requirements | | A training manual and certification procedure will be developed for the training of women wise agents who will be given a certificate after the completion of the course. | | | * Development of. TORs for support of a University for the purpose. * Contact with a University for the development of the manual and the certification. | | | Training manual and certificates. | |
| Activity 2.1.3.3 Scholarship for young women trainers | | A scholarship for a 7-week course on Climate Change Adaptation, delivered over 6 months, will be provided to 8 young women agronomists to train them as Master Trainers for training Climate Wise Women from the four target Governorates. | | | * Form a committee for the selection of the candidates. * Finalize the selection criterion. * Advertisement for the selection of the Master Trainers. * Short-list and interview the candidates. * Finalize the selection and announce the awards. | | | 8 Master Trainers selected and trained. | |
| Activity 2.1.3.4 Competitive selection of candidates for climate wise-women | | Service providers will be hired in each Governorate for the identification of the 400 young women, with 100 women from each Governorate and at least one woman from each village. The candidates will be competitively selected based on a criteria that is finalized during implementation. | | | * Constitute a board comprising of representatives from the PMU, Government Extension Departments, Master Trainers and the Service provider (SP) NGO to oversee the selection process. * Finalize the preliminary selection criteria. * Develop Tors of reference for SP. * Competitively select the SP for each Governorate. * SPs to develop and run an information dissemination campaign for the recruitment of the 400 young women. * Select 100 women from each Governorate based on the selection criteria. * Develop a contract for the Climate wise women agents. * Signature of the contracts with each selected candidate to confirm training and terms of deployment. | | | 400 women selected and signed agreement to participate in the training. | |
| Activity 2.1.3.5 Trainings developed for climate wise-women | | The selected candidates will be trained for a 16-week period in climate adaptation practices. | | | * Develop TORs for selection of service providers to organize the training for 400 young women from rural areas in the four Governorate. * The Training will be delivered by the young women Master Trainers prepared by the project. Identify the training venue and organize the logistics including transport, seating, training materials and safe transport. * Administer a trainee feedback survey at the end of the session. * Prepare a training report with recommendations. | | | 400 climate wise-women agents trained. | |
| Activity 2.1.4.1 Conducting community dialogues for gender sensitive climate adaptation measures | | The Climate Wise Women (CWW) will hold dialogues with groups of women, men and youth in the communities to enhance their awareness about climate change and how best to cope with the risks associated with it and enhance their resilience. The women wise agents will undertake household visits to advise people on adaptation measures at the domestic and farm level. These could include information about water-saving devices and practices at the domestic level, setting up of simple greenhouses, drip irrigation systems, production and use of growbags etc. | | | * The climate wise women will develop a plan of action for visits in her community. * This will consist of dialogues and home visits. * The women-wise agents will submit monthly reports. * Payment of a small stipend on a monthly basis. * The CWW will give feedback on how to make her work more effective. * The service provider will develop a plan of supervision and monitoring to assess the impact of the community level interactions. | | | 10 dialogues and 25 house visits by each CWWs. | |
| Activity 2.1.4.2 Organizing multi-stakeholder climate-wise women forums | | The Climate Wise Women Forums will be organized in Year 4, 5 and 6 of the project. These events will serve to highlight the role of women as change agents; identify achievements and challenges for climate adaptation at the community level for women, men and youth; provide feedback to the Jordanian government on actions required at multiple levels to address climate change. | | | * Identify one of the service providers to host the forum. Identify the location and list of participants including representatives from the GoJ , CSOs and the CWWs and other key stakeholders. * Prepare an agenda for the forums using the highly interactive modern techniques like World Café and the Gender Action Learning System Tools. * Report on the findings and key recommendations. * Incorporate lessons and recommendations for wider dissemination. | | | Three forums organized in year 3, 4 and 5 and lessons and recommendations reported for incorporation for future climate adaptation programmes and national policies. | |
| Component 3: Scaling-up climate adaptation | | | | | | | | | |
| 3.1.1.1 Technical assistance to the Ministry of Environment, the Ministry of Agriculture and the Ministry of Water and Irrigation to initiate the process of policy reform. | | A team of international and national expert will advise and support stakeholders in initiating the necessary policy reform processes to address identified bottlenecks:   * 1: Design and promotion of climate adaptive subsidies vs current ones (e.g. cereal price and purchase policy); * 2: Lack of application/execution of the green building code to rural areas that is reducing the capacity to optimize water resources in the most vulnerable governorates (project areas); * 3: Public incentives, investments and actions to ensure adoption of climate change adaptation practices related to water scarcity by local administration and communities; * 4: Role of public infrastructures to contribute to climate change adaptation by contributing to water harvesting and reducing water needs among rural populations; * 5: Public incentives, investments and actions to introduce climate change adaptation in agriculture and related extension services. | | | * *Develop terms of reference for international and national expert specifying requirement to review policies from the gender perspective* * *Gender-inclusive Consultation with institutions (national and local), private sector, academia, civil society organizations to address identified bottlenecks.* * *Preparation of recommendations and presentation to the TWG-A and to the NCCC of the proposed policy options and strategy.* * *Information and mainstreaming of proposed changes at local level via dedicated workshops and events.* * *Monitoring and follow up of the approval process with relevant institutions.* | | | 5 policy recommendation that include action plans and financial needs  5 policy reform processes initiated  1 National Committee strengthened (TWG-A) | |
| 3.1.1.2 Technical Assistance to support the MWI in enhancing the quality of effluent to enlarge the possible farming options and upgrade the related policy framework | | A team of national and international experts will support stakeholders (e.g. MoE, MoH, MoA, MWI, WUA) in ensuring the upgrade of water quality standards, develop the incentives to enhance the use of reclaimed water and ensure that downstream uses of reclaimed water are included in planning and designing of new plants or expansion of the existing ones. | | | * *Gender-inclusive Consultation with institutions (national and local), private sector, academia, civil society and water users associations to guarantee water quality standards, enhance.* * *Preparation of recommendations and presentation to the MWI, the MoH, the MoA and the MoE of the proposed changes, strategy and investment plan.* * *Information and mainstreaming of proposed changes at local level via dedicated workshops, awareness campaigns and events.* * *Follow up of the approval process with relevant institutions.* | | | 1 standard (reclaimed water use) improved | |
| 3.1.2.1 Technical Assistance to the Ministry of Education and main Universities to update the national curricula | | A team of national and international experts will support the structures and actors within the Ministry of Education and universities to introduce gender-sensitive climate change adaptation practices and technologies promoted by the project as well as other in the national curricula of vocational schools (e.g. agriculture, light industry and construction) and degrees (e.g. agriculture, architecture and civil engineering). | | | * *Gender-inclusive Consultation with public and private actors active in the vocational and superior to prepare the new curricula for vocational schools and universities in the CC/Agriculture/Water sectors.* * *Information and mainstreaming of proposed changes at national level via dedicated workshops and events.* * *Monitoring and follow up of the approval process with deputed institutions.* | | | 6 national curricula updated (Vocational schools: masonry, plumbery and agriculture. Specialized Universities: agriculture, architecture, water engineering) | |
| 3.1.2.2 Training for teachers and professors to enable the teaching and practice of the new curricula | | The project will work with the Ministry of Education and Universities to develop a gender-sensitive update/upgrade climate change adaptation course for national teachers/trainers/professors (. The course will be the base to mainstream climate change adaptation practices and technologies among teachers, instructors and university professors. | | | * *Organization of logistic at the national level.* * *Training of trainers.* * *Preparation and distribution of learning materials.* * *Execution of the training modules.* * *Monitoring and evaluation of the trainings.* | | | 1 training course developed for teachers.  1 training manual developed. | |
| 3.1.3.1 Local engagement and dissemination process | | The project will work with all the expressions of the civil society in project areas as well as national and local media to develop the appropriate approaches and actions to engage communities in project areas and develop a local engagement plan to reach out the largest possible number of people and mainstream key climate change adaptation practices and technologies as well as inform on where to ask for advice and/or find additional information and learning materials. | | | * *Coordination and gender inclusive consultation with local NGOs, CBOs and other representation of the civil society in project areas to develop the engagement plan.* * *Organization of logistic at the national level* * *Preparation of information/training/knowledge sharing modules.* * *Execution of the local engagement plan.* * *Monitoring and evaluation of the local engagement plan.* | | | 1 Engagement plan developed.  At least 56 local events organized and executed.  At least 6 gender-sensitive media campaigns developed (e.g. improved varieties, how to cope with increased temperatures, how to cope with water scarcity, CCA technologies: where, when, who, how much? and others). | |
| 3.1.3.2 Technical Assistance to enhance local administration's and private sector actors' capacities to comply with the national green construction and water saving policy frameworks | | The project will support local administrations (governorate, province and municipalities) as well as the private sector (e.g. masons, plumbers, electricians, architects, prioritizing the inclusion of women technicians) in adopting gender-sensitive tools and practices that will contribute in increasing water savings and climate change adaptation among communities and administrations. This will include provision of trainings and technical assistance on how to comply with existing policy frameworks and practices as well as to address the limitation and bottlenecks preventing the adoption of climate change adaptation actions and specific water saving actions such as those promoted in the green building code. | | | * *Gender-inclusive Consultation with institutions (local) and the private sector and civil society in project areas to develop a tailored technical assistance plan.* * *Organization of logistic at the local level.* * *Execution of the trainings.* * *Follow up with administrations and beneficiaries.* * *Monitoring and evaluation of the trainings.* | | | 1 Technical assistance plan developed.  1 Full training package prepared.  1 Training manual developed.  32 update courses executed. | |
| 3.1.3.3 Technical assistance and training to local institutions and civil society organizations | | The project will transfer to national and local NGOs and CBOs the technologies and practices introduced by the project and will link participants with other project to enhance their knowledge on climate change adaptation practices. The activity will include trainings and capacity development processes to allow involved organizations and groups to expand the basin of people to be involved and trained on technologies and practices introduced by the project. The activity will include the development of a clear and specific training and capacity development action plan to ensure full mainstreaming of CCA and water saving practices across the local civil society. | | | * *Coordination and gender-inclusive consultation with local NGOs, CBOs and other expressions of the civil society.* * *Organization of logistic at the local level.* * *Preparation and distribution of gender-sensitive learning materials* * *Execution of the training/awareness modules.* * *Monitoring and evaluation of the trainings.* | | | 1 Technical assistance plan developed.  1 Full training package prepared.  1 Training manual developed.  15 update courses executed. | |

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| **E.7. Monitoring, reporting and evaluation arrangements (max. 500 words, approximately 1 page)** |
| 1. A Monitoring and Evaluation System will be established for the BRCCJ project in keeping with the guidelines of GCF to report on the Performance Measurement Frameworks (PMF) designed to measure the key indicators. The key reports that will be submitted have been identified in the M&E Reporting Matrix given below together with their timelines and reporting responsibility. More details are provided in Section 8, Annex 2 and Annex 11. The PMU will assume overall responsibility for all M&E functions, including measuring and reporting, and providing key performance data and tools to support the strategic planning and real-time decision-making. An M&E Unit will be established within the PMU and Monitoring and Evaluation Specialists will be recruited to head the unit and oversee the monitoring of all key components. The M&E Officer will develop an MIS system which will geo-reference all activities using FAO’s Remote Sensing application Earth Map. The MIS system will also record beneficiary phone numbers for feedback from participants. The MIS system will also be used for tracking beneficiaries over time and assessing impact. 2. The PMU will formulate an Annual Work Plan & Budget based on the annual physical targets indicated in the proposal and monitor performance against the plan. Formats will be developed for each of the reports namely the monthly statistical reports, the quarterly statistical and narrative reports and the Annual Performance Reports (APRs) by the M&E Unit with support from the CTA. As the AE of the GCF, FAO will take the lead in the preparation and submission of the APRs. In order to report on the progress made towards the targets of the indicators in PMFs and any additionally identified project level indicators using sex-disaggregated data. APRs will also contain a narrative with updates on the progress of each output and outcome envisaged at the project level. APRs will include an update on the status of the achievement of the GCF investment criteria. Annual results and related analysis, jointly reviewed by FAO and the PMU, will form the basis for each annual year planning exercise and the preparation of the AWPB. These will be presented to the NCCC in order to support its strategic role and to secure transparency and evidence-based strategy development. 3. All implementing partners such as private contractors, service providers, technical experts and UNDP as an EE for some of the activities will be responsible for maintaining records on the standard format designed as part of the project MIS and the reporting system. Partners will be trained in the use of the geo-referencing tool and will be required to maintain MIS records consistent with the overall system designed for the project and adopt the reporting formats developed by the project. All implementing partners will be required to provide sex-disaggregated information on the core indicators, impact, outcome and output level indicators specified in the PMF. Gender-sensitive indicators drawn from the Climate Smart Agriculture Source Book [(FAO, 2020)](http://www.fao.org/climate-smart-agriculture-sourcebook/enabling-frameworks/module-c6-gender/chapter-c6-5/en/) identified below will be used in the surveys and reports where appropriate. Service providers will be required to annually report on physical and financial progress but also on key performance indicators and outputs if needed. The contracts with each implementing agency will specify their reporting responsibilities, the frequency of the reports to be produced and provide them with the formats to be used. All partners will be required to review the Gender Action Plan which is an integral part of the proposal and report on the implementation and indicators of specific aspects related to gender. All implementing partners will also provide requisite sex-disaggregated data for the mid-term and final impact evaluations and make themselves available and open for any external financial and performance audits.      1. The M&E unit will be responsible for periodic checks on some of the data collected on different project activities and verify randomly the GPS coordinates provided. The Unit will also work closely with staff from the relevant Ministries to conduct sex-disaggregated beneficiary feedback sessions in the field. The MWI will be involved in the feedback from those participating in the RWH investments, the use of reclaimed water and those who participated in the preparation of the LRIPs. Similarly, the DG Extension and senior staff from NARC will be responsible for the feedback sessions with participants of the FFS and field days. MoA will be required to track adoption rates and the impact on capacity for resilience using the tool developed by FAO for the purpose. MoA and MoE will develop a system for feedback on the e-extension system and obtain feedback for improving the system and reporting on its utility and effectiveness using their own co-finance. As a first step the number of men and women users who have downloaded the application will be tracked together with those who are viewing the content in the audio, video and text formats. The trends in usage and the location of most use will also be used to conduct a geo-spatial analysis of the e-extension system. The women extension staff from the project Governorates will assist in conducting sessions with the Climate Wise women (CWW) and assess how the project can facilitate their work and also report on their performance as agents of change. Those providing technical assistance will be required to provide detail reports which track the core indicators, the impact and outcome and output level indicators specified in the PMF. 2. The M&E database will be maintained by the PMU and information will be supplied by all service providers on a monthly basis or in real time if a link can be established with the central service at the M&E unit. Within the first quarter of the second year, when activities have been initiated and sufficient outreach has been achieved and the M&E data base begins to get populated, thematic maps will be generated by the project and will be monitored through consolidated remote sensing practices or geospatial analysis. This is expected to yield a better understanding of trends and patterns and make the analysis more meaningful in understanding the relationship between climate parameters and the pattern of adoption and participation in project activities. Data collected through reports prepared by service providers and implementing partners and verified with beneficiaries will be sex-disaggregated. 3. Each partner will also establish a mechanism for sex-disaggregated beneficiary feedback and demonstrate how they have incorporated the feedback in improving their implementation approach. A beneficiary feedback will also be prepared by each implementing partner on an annual basis and will form part of the Annual Performance Report (APR). The implementing agency will ensure that the beneficiary feedback is organized so that the reports provide sex-disaggregated perspectives. The PMU will also establish a grievance redress system and will be communicated by each implementing agency to the participants so that the participant can directly access the system in a manner which guarantees their confidentiality. FAO’s Guidelines for Compliance Reviews will Follow the procedures for Complaints Related to the Organization’s Environmental and Social Standards which specify that complaints “... will be sent to the PMU, where someone will be designated as the he Safeguards Specialist, and will act as the Grievance Redress Mechanism Focal Person” [(FAO ESS, 2015)](http://www.fao.org/3/a-i4439e.pdf). 4. The project will commission a Baseline Survey by a third party in year one against which subsequent changes and impact will be measured. The project will also undertake surveys at mid-term and at completion to assess the performance of the project, draw important lessons and incorporate beneficiary feedback. The mid-term survey will incorporate key aspects of impact on the targeted households. At project completion, a final impact assessment will be undertaken to assess the overall impact of the project on the beneficiaries. The mid-term and impact will compare projects results with the expected outreach, adoption of climate adaptation practices and assess the overall impact on the paradigm shifts outlined in the project log-frame and the indicators of resilience outlined at the impact level. All surveys and impact assessments will be sex-disaggregated and key gender-sensitive indicators both quantitative and qualitative outlined in the Gender Action Plan will be captured in the initial and subsequent surveys and findings. The Surveys will be conducted in close consultation with the FAO Office of Evaluation. In addition, all impact evaluations will be conducted by external parties under OED supervision to ensure independence and quality. 5. In accordance with the AMA between FAO and GCF, the FAO Office of Evaluation will be responsible for the independent interim and final evaluations. The evaluations will be conducted using a question-driven approach, and may include assessments against the criteria of relevance, effectiveness and sustainability, among others. The interim evaluation will be instrumental in contributing – through operational and strategic recommendations –to improve implementation, setting out any necessary corrective measures for the remaining period of the project. The final evaluation will assess the relevance of the intervention, its overall performance, as well as sustainability and scalability of results, differential impacts and lessons learned. The evaluation will also assess the extent to which the intervention has contributed to the Fund’s higher-level goal of achieving a paradigm shift in adaptation to climate change in Jordan. Special attention will also be given to the involvement of most vulnerable groups and individuals, to the establishment of synergic and innovative partnerships leading to impact and on the establishment of a clear pathway to transformational change. To measure attributable changes, the evaluation will draw on mixed-methods, using qualitative methods (e.g. participatory rural appraisal, focus group discussions, key informant interviews, etc.,) in combination with counterfactual analysis (e.g. quasi-experimental methods, depending on the existence of reliable control group data from the project’s baseline and completion surveys, which will be confirmed during project inception). In addition to primary data collected by the evaluators and secondary national data, both interim and final evaluations will draw on the mid and end line surveys and monitoring reports and activities prepared by project staff. The final evaluation will draw on results of the impact evaluation and both processes impact and final evaluation will be carried out under OED’s responsibility. Careful attention will be paid to the disaggregation of data, results and outcomes by gender. The innovative aspects of the project with respect to gender will be especially highlighted in the assessments and evaluations with key lessons drawn for the future. 6. Learning and knowledge management: The Project will also synthesize the lessons that emerge from the Project in a separate section in the APRs, including lessons on mainstreaming gender. These lessons will be shared with the NDA and the NCCC to enable them to incorporate them in the strategies and plans being developed by the country in its NAP and other key strategy documents. The project will work with the Secretariat in identifying and developing both specialized and non-technical knowledge products that can be circulated more widely. TAs working on specific topics and policy briefs will be required to develop these products. FAO will also capitalize on its in-house experience to undertake the development of knowledge products for wider dissemination. 7. Communication: All the interventions, data and results generated by the project will be effectively communicated and disseminated to the different stakeholders and beneficiaries. Specialized services will be contracted to implement gender-sensitive communications campaigns which will include the use of knowledge-sharing platforms and social-media networks to promote participation, awareness raising and to strengthen project´s partnerships. Communication services will also make sure that all the documents requiring multi-lingual support will be available in Arabic and English.     TABLE 15: Reporting Matrix, Report And Timelines -GCF-BRCCJ   |  |  |  |  | | --- | --- | --- | --- | | **Reporting Relationships** | **Types of Reports** | **Reporting Timeline** | **Responsibility** | | Baseline Survey | Year 1 | Independent Third Party | | GCF  **National Climate Change Committee-PSC**  FAO-HQ  FAO-Jordan (AE & EE)  NDA Focal Point  PMU  FAO-UNDP (EE)  M&E Unit  Service Providers  Private Contractors  Participating households  Universal Access | Annual Work Plan and Budget | Two months prior to the start of the relevant PY. | PMU-CTA | | Geo-Referencing of all activities using FAO’s Remote Sensing application “Earth Map”. | Real time sex-disaggregated tracking and recording of all participants | PMU- M&E Unit | | Benefciary Feedback Analysis with both men and women. | On a regular basis at the completion of key project investments. | PMU- M&E Unit | | Monthly statistical reports on physical and finncial progress. | At the end of the first week of the relevant month. | EEs-UNDP and FAO, Service providers and contractors. | | Quarterly Statistical and Narrative Reports on physical and financial progress. | Two weeks after the end of the relevant quarter. | PMU- M&E Unit | | Environmental & Social Safeguards Quarterly Report | Two weeks after the end of the relevant quarter | Environmental and Social Safegaurds Specialist | | Policy notes and briefs to highlight the project progress with policy and regulatory reform. | On a periodic basis at each signficant point of reform. | Techncial Assistance | | Anuual Progress report on outputs and key performance indicators. | One month after the end of the relevant PY. | Service providers and contractors. | | Annual Performance Reports. | Two months after the end of the relevant PY. | PMU- M&E Unit | | Report on Co-financing in absolute numerical terms in accordance with the provisions of the relevant legal agreements between the AE and the GCF. | One month after the end of the relevant PY. | PMU-Financial Specialist and MWI, MoA and MoE. | | Geospatial analysis through thematic maps. | The first quarter of PY 2 and therefater annually. | PMU- M&E Unit | | Leaning and Knowledge Products | Periodically | TA | | Mid-Terim Survey | Year 4 | Third party Survey witjh coordination from FAO Office of Evaluation. | | Interim Evaluation | Year 4 | FAO Office of Evaluation | | Completion Survey | Three months prior to end of the project in PY 7. | Independent Third Party witjh coordination from FAO Office of Evaluation. | | Final Impact | Three months prior to end of the project in PY 7. | Independent Third Party | | Final Evaluation | Three months prior to end of the project in PY 7. | FAO Office of Evaluation | Three months prior to end of the project in PY 7. | Independent Third Party | |

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| RISK ASSESSMENT AND MANAGEMENT | | |
| F.1. **Risk factors and mitigations measures (max. 3 pages)** | | |
| **Selected Risk Factor 1** | | |
| Category | Probability | Impact |
| Governance | Medium | Low |
| Description | | |
| 1. Expected contribution from the Government could be jeopardized due to the budget deficit. The Government faces a tough balancing act as it tries to reduce its debt burden by lowering its borrowing, cut public expenditure and avoid raising its revenue from new taxes. Besides, the Government does not intend to impose new taxes in its proposed 2020 budget and intends to seek other means, such as a crackdown on pervasive tax evasion, to help boost national revenue crucial to lowering its record public debt. The Government’s reluctance to impose new taxes springs from its past experience when demonstrations were triggered in 2018 when steep tax hikes pushed by the IMF came into effect. At the same time Parliamentarians have warned that they would reject any proposals to raise water or electricity fees and urged the government to reduce sales taxes on essential food items to help low-income Jordanians struggling with rising poverty. High outstanding public-sector debt (94% of GDP) makes the economy heavily reliant on continuing international donor inflows to support Syrian refugees and develop physical infrastructure to accommodate them. Jordan's government is thus susceptible to both internal and external pressure. In view of the economic shut down of the country the risk of this has further increased. | | |
| Mitigation Measure(s) | | |
| 1. Due to the limited fiscal space that the Government has and its reluctance to borrow additional finance given its high debt ratio, the project does not impose any additional financial burden on the Government. 66% of the Government´s expected co-financing for the project is in-kind and entails using its existing facilities and staff, promoting the Farmer Field School approach and innovative e-extension technologies to avoid overcharging the extension Staff. Government´s direct contribution (estimated at USD 2.1 Million in a seven year period, mainly for the scaling-up of rainwater harvest rooftops in C2) is already part of the MWI Investment Plan for 2016-2025 and there is no any other direct financial contribution from the GoJ which could have placed an additional fiscal burden on. On the contrary, water saving generated by the project is expected to reduce the burden of the water subsidies in the country. Finally, the project´s profitability was verified with different scenarios, considering the shortfall of funds of the Government direct contribution (that accounts only for 25% of the total number of Household Rainwater harvesting Systems). Thus, the level of risk with respect to the project dependence on Government funds has been eliminated. | | |
| **Selected Risk Factor 2** | | |
| Category | Probability | Impact |
| Governance | Medium | High |
|  | Description |  |
| 1. The project approach relies on strong political will and appetite for policy change especially in some sectors where the Government might not be willing to take decisions which are likely to be unpopular such as strict enforcement of existing policies or reconsidering the policy regarding water, fodder crops and practices which do not use water very efficiently. | | |
|  | Mitigation Measure |  |
| 1. The Project will work closely with the senior policy makers with the NDA and NCCC and only select issues on which there is broad consensus. In addition, the project will provide technical analysis and evidence so that the government can carefully consider the pros and cons and weigh the decisions carefully and make decisions that are in the interest of long-term sustainable development in the country. | | |

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| **Selected Risk Factor 3** | | |
| Category | Probability | Impact |
| Other | Medium | Low |
| Description | | |
| 1. Over the last two decades, the Jordanian government has been committed to women’s rights and increasing female participation in the workplace. However, only 15.8 percent of women enter the workforce, despite relative gender equality in educational achievement in Jordan. Apart from other factors, it appears that a ***fear of safety in the work place could*** be a factor in preventing women from taking up employment in the country and could also limit women’s participation in project activities. Social, institutional and material barriers get in the way of women feeling safe at work and achieving justice against violations committed at the workplace. It is reported that the more precarious or informal the work, the higher the risk of women facing sexual harassment. [[51]](#footnote-51) The project expects to involve women as direct beneficiaries of its activities. It is expected that at least 47% of the direct beneficiaries will be women as recipients of RWH installations, use of reclaimed water, as participants in FFS, field days and as agents of change who can influence how women from vulnerable households cope with the impacts of climate change and learn to adapt to the associated risks. Women Extension Agents from the extension service and technical specialist from NARC are also expected to participate as Facilitators and Field Day Specialists in training the participants of FFS and conducting Field Days. At least 20 of the extension agents in the four project Governorates are women. Thus, it is very important that women feel safe in participating in project activities. | | |
| Mitigation Measure(s) | | |
| 1. The project has a strong focus on inclusion of women and socially marginalized groups. The project will ensure that women facilitators and women participants feel secure in their participation in project activities. The project will ensure that all activities in which women are expected to participate are conducted in secure settings in terms of the timing of the sessions as well as the location. In case, some of the women participants want to be accompanied by someone from their household to participate in project activities, arrangements will be made to enable them to do so. Seventy of the FFS will be women-only thus ensuring that women who may face cultural barriers in attending mixed gender FFS will be able to access capacity-building opportunities. In addition, fifty percent of the facilitators of FFS and field days will be women. The young Climate Wise women (CWW) will be trained by women master trainers. A service provider will be responsible for ensuring safe transport to the training venue and safety of the CWW during their field work. The project will also organize sessions with women on an annual basis to invite their feedback on their participation, security and safety and other aspects of participation. In addition, the project will designate a woman in each Governorate to whom a complain can be lodged in case any woman feels insecure or has a complain to lodge. The project will also make arrangements for a grievance redress mechanism at the level of the PMU and establish a hotline for complaints directly to the CTA/FAO for any complaints or grievances that are not resolved at the local level or in case someone does not feel comfortable reporting at the Governorate level. These complaints will be strictly confidential and the FAO system for grievance redress and investigation of cases will be used for the purpose. The project will publicize these arrangements in all locations where project activities are conducted through a flier and the hotline numbers. | | |

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| Selected Risk Factor 4 | | |
| Category | Probability | Impact |
| Technical and operational | Low | Medium |
| Description | | |
| 1. A new health risk has emerged which is due to the COVID-19 pandemic which illustrates how quickly everything can come to a grinding halt as it did during the preparation of the project. | | |
| Mitigation Measure(s) | | |
| 1. In case of a health emergency such as presented by a similar pandemic or the unbaiting nature of the current virus, the UN emergency health advisories and procedures will immediately come into play to restrict travel and follow the laid down procedures. This will also entail a halting of all project activities in the field and will imply extending the project execution period to complete all activities. | | |

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| **GCF POLICIES AND STANDARDS** |
| G.1. **Environmental and social risk assessment (max. 750 words, approximately 1.5 pages)** |
| 1. In accordance with FAO and GCF’s Environmental and Social Policy (ESSP), the BRCCJ underwent an environmental and social assessment following FAO’s environmental and social safeguards [(FAO, 2015)](http://www.fao.org/3/a-i4413e.pdf). There will be no significant or irreversible negative environmental impacts associated with the project – on the contrary, the project will build the adaptive capacity of communities and institutions in Jordan, address the needs of vulnerable groups with an emphasis on women, and increase the resilience of water management systems as well as agricultural resources to climate change. Project components were identified through a consultative process, and are prioritized in Jordan’s Climate Change policy and its National Adaptation Plan (2020). These include water use efficiency, water harvesting and the use of non-conventional water sources,building adaptivecapacity of farming households and a range of institutions at the national and Governorate level. Promoting gender equality and empowering women is considered an important element of climate change adaptation in the NAP and is mainstreamed in project interventions with specific activities also identified to promote women’s agency. 2. The ESMF identifies policy triggers for the project, screening criteria for activities, environmental and social impacts of the activities, and measures to mitigate identified risks. Mitigation actions will avoid, minimize and mitigate negative impacts during project implementation and operation. Mitigation actions will be in line with FAO and GCF ESS policy, and national legislation, and adhere to whichever is most stringent. The ESMF also sets out the modalities for stakeholder engagement, and the procedure and process for dealing with complaints, through the Grievance Redress Mechanism. 3. The ESFM will be disclosed on relevant portals, and shared with stakeholders during stakeholder engagement consultations, so they are aware of potential consequences of project activities. Consultations with stakeholders during project execution will take place yearly, at the time of the preparation of the Annual Work Plan and Budgets (AWPB). The AWPB will be presented by the PMU to the NCCC and reviewed by all stakeholders, including at the national, Governorates and community levels. During these stakeholder consultations, the Grievance Redress Mechanism will also be presented and explained. 4. In order to ensure a smooth and effective ESMF process, there will be a technical specialist responsible for the environmental and social safeguards process (including GRM and stakeholder engagement) who will interact on a regular basis with key stakeholders and be available to respond to any grievances. 5. Proposed project investments are designed to have positive social and environmental benefits; the project has however been classified as ***moderate risk (Category B)*** largely due to works associated with water resources. FAO ESS triggered are: 6. ESS 1 (natural resources management). Risks are related to the installation of rooftop rainwater harvesting structures and water saving devices for households (HH) and public buildings; and regulation, storage and distribution of hydraulic structures built to maximize use of reclaimed water from the Wastewater Treatment Plants. Jordanian legal frameworks, and international standards (e.g. WHO *Guidelines for the safe use of wastewater, excreta and greywater: v. 2. Wastewater use in agriculture*) on these issues will be followed, as applicable. Best practice for optimal rainwater harvesting, including process and materials will be implemented; all left-over construction material will be disposed of at an appropriate site in an appropriate manner. 7. ESS 3 (plant genetic resources for food and agriculture). Drought-tolerant and water efficient seed varieties will be used, such as cultivars of barley and fruits. These varieties are old varieties and have been tested and patented by NCARE, under the MoA. If and as applicable, internal FAO clearance will be sought for all procurement of seeds and planting materials. The project will use the Farmer Field School (FFS) approach as well as field days to demonstrate the tested and approved practices and technologies. 8. ESS 7 (decent work). Potential risks could be related to equitable benefitting from project activities. To address this, project activities specifically target women and also youth (ref. Gender Action Plan). Occupational health and safety risks will be dealt with by providing training, and protective measures and gear. Where the project hires workers, employees’ rights as per UN/FAO standards will be respected. The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship 9. Annex 6 provides the Environmental and Social Management Plan (ESMP) and Annex 7 provides a summary of consultations and the stakeholder engagement plan. |
| G.2. **Gender assessment and action plan (max. 500 words, approximately 1 page)** |
| 1. In keeping with GCF’s Gender Policy, the project design was based on the understanding that gender relations, roles and responsibilities exercise important influences on women’s and men’s access to and control over decisions, assets and resources, information, and knowledge. This in turn influences their resilience and capacity to adapt to climate change risks. Thus, during the design, separate consultations were held with women who were considered an important stakeholder in the process. The gender assessment was undertaken by a local consultant who was supported by an International Gender and Social Inclusion Specialist. Field visits were conducted in the project area and dialogues were held with both men and women. The design team met with staff from all the Ministries and with the Extension staff of the MoA at the Governorate level, civil society organizations working on gender issues as well as key agencies working on gender issues such as UN Women, Jordan River Foundation (JRF), Jordan Hashemite Fund for Human Development (JOHUD), etc. The International and national gender experts worked closely with the technical specialists on the team to ensure that gender aspects were mainstreamed in each of the main components of the project as well as the project management arrangements. The project has identified some very innovative ways in which it can involve women as change agents by developing a cadre of Climate Wise Women (CWW) to be deployed at the community level. A Gender Assessment and a Gender Action Plan has been developed for the project and is elaborated in Annex 8. 2. Women are among the most vulnerable to climate change as they have the main responsibility for many of the tasks for which there is a much greater reliance on natural resources. This includes their role in collection and use of domestic water, livestock feed and food for the households. Women are dis­proportionately affected by climate change due to unequal access to resources, barriers to decision-making processes and limited mobility. In the country, almost 9.1% of female-headed households are food inse­cure or vulnerable to food security, compared to 5.7% of male-headed families (DoS 2013). Women face significant social, economic, and political barriers that negatively affect coping capacities. However, they have a critical role to play as educators, caretakers, practitioners, and agents of change in climate resilience as reflected in key documents such as the Climate Change Gender Action Plan (2010) and the National Climate Change Policy of Jordan (2013). 3. The Gender Action Plan of the project aims to have a transformative impact on women’s role in climate change through their engagement in the agriculture and water sectors in the country. It also ensures that 47% of all direct and indirect beneficiaries are women. In Component 1, the GAP ensures that (i) women are involved as decision-makers at multiple levels (ii) women’s practical gender need for ease of access to water is addressed (iii) vulnerable women are prioritized and provided access to water (iii) women’s ‘voice’ is included in socio-economic feasibilities for developing water sources and in assessing the impact of the intervention. In Component 2, the GAP ensures that (i) women’s role as agents of change for climate resilience is made visible and they are equipped with the knowledge, skills and resources they need to play that role (ii) women have increased and equitable access to knowledge and skills for climate adaptation through interventions tailored to their specific priorities and needs (iii) increased availability of food from homestead garden (iv) women have increased access to modern technologies (v) women have the profile and visibility to be informed interlocutors in the national dialogue on climate change (vi) women have the opportunity to network with each other, government and key stakeholders across governorates (vii) gender differentiated impact of the interventions in this component are captured. In Component 3, the GAP focusses on ensuring (i) institutionalizing visibility of women’s role, needs and priorities in climate change adaptation) (ii) increasing women’s opportunities to adopt climate adaptive practices (ii) increasing access of women educators and women’s grassroot organizations on climate (iv) increasing women’s voice in shaping project interventions. In project management responsibility for mainstreaming gender will be included in the ToR of the CTA. Data collected on project indicators will be sex and age disaggregated and project reports will include sex-disaggregated findings, analysis and recommendations. |
| G.3. **Financial management and procurement (max. 500 words, approximately 1 page)** |
| 1. FAO will be the Accredited Entity which will execute the project in accordance with FAO rules, regulations, policies and procedures. Financial management and procurement under this project will be guided by relevant FAO rules and regulations as relevant provisions in the Accreditation Master Agreement (AMA) signed between FAO and GCF. These rules and regulations were reviewed by GCF and deemed satisfactory by the GCF Secretariat and Accreditation Panel as part of FAO’s accreditation to GCF. 2. FAO has deployed an Oracle based resource planning system termed the Global Resources Management System (GRMS) which provides FAO personnel with travel, human resources, procurement and finance functionalities. The system has improved the flow of financial information and supports financial monitoring and reporting, increases transparency and visibility and strengthens internal control. FAO maintains a Chart of Accounts that allows for the separation of income and expenditure by donor and project. The system is based on a standardized coding structure that enables data to be recorded, classified and summarized to facilitate internal management and meet external reporting and audit requirements. 3. Direct procurement by FAO will be undertaken under the project in accordance with the FAO manual procedures for procurement of Goods, Works and Services (502) and for sub-contracting the delivery of specific activities to service providers and ensuring value for money (507) and to sub-contract for agreed results as provided for in the operational partners implementation modality (701). The project will be subject to FAO’s audit regime including the external audit and internal audit function. An 18th month procurement plan has been provided based on the project budget (Annex 4) and the expected timelines (Annex 5) using the FAO procurement procedures and thresholds and is given in Annex 10. This plan has been coordinated with UNDP and its procurement is also included in the main Annex 10. However, consistent with the overall procurement plan, a plan by UNDP is also attached at Annex 10:A if required. Responsibility for UNDP’s procurement is decentralized, meaning that the entire procurement cycle – from sourcing to contract management – is done locally. The head of the Country Offices, the Resident Representative (or his or her designee) oversees the process.  The Country Office will enter into contracts with vendors, which may be companies or individuals. Headquarters plays a limited role with the Procurement Services Unit (PSU) providing support and specialized assistance. The Procurement Oversight Unit (POU), an independent unit within the Bureau for Management Services, approves contracts exceeding 150,000 USD. The POU ensures that procurement undertaken by UNDP all units complies with relevant guidelines, and that procurement risks are properly assessed and mitigated. With offices all over the world and with a broad mandate to work for sustainable human development, UNDP buys both goods and services to be able to carry out projects and programmes together with partners. 4. FAO's Financial Regulations provided that the External Auditor shall be the Auditor-General (or person exercising an equivalent function) of a Member Nation, selected through a transparent bidding process by FAO's Governing Bodies. In 2019, the Comptroller and Auditor General of India was appointed by the Counsel of FAO for the six-year period 2020-25. The FAO Rules and Regulations for audit apply to all funds and activities managed by FAO, including projects funded by donors. The audit opinion and report of the External Auditor on the FAO Accounts therefore cover all FAO projects. All the Organization’s funds and activities are similarly open to review and report by FAO Internal Audit to the Director-General and governing bodies. 5. For UNDP, the Contribution shall be subject exclusively to the internal and external auditing procedures provided for in the financial regulations, rules, policies and procedures of UNDP.  Should the annual Audit Report of the UN Board of Auditors to its governing body contain observations relevant to the Contribution, such information shall be made available to the Donor by the country office. |
| G.4. **Disclosure of funding proposal** |
| No confidential information: The accredited entity confirms that the funding proposal, including its annexes, may be disclosed in full by the GCF, as no information is being provided in confidence.  With confidential information: The accredited entity declares that the funding proposal, including its annexes, may not be disclosed in full by the GCF, as certain information is being provided in confidence. Accordingly, the accredited entity is providing to the Secretariat the following two copies of the funding proposal, including all annexes:   * full copy for internal use of the GCF in which the confidential portions are marked accordingly, together with an explanatory note regarding the said portions and the corresponding reason for confidentiality under the accredited entity’s disclosure policy, and * redacted copy for disclosure on the GCF website.   The funding proposal can only be processed upon receipt of the two copies above, if containing confidential information. |

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| ANNEXES | | | | | | | |
| **H.1. Mandatory annexes** | | | | | | | |
|  | | Annex 1 | | NDA no-objection letter | | |
|  | | Annex 2 | | Feasibility study | | |
|  | | Annex 3 | | Economic and/or financial analyses in spreadsheet format | | |
|  | | Annex 4 | | Detailed budget | | |
|  | | Annex 5 | | Implementation timetable including key project milestones | | |
|  | | Annex 6 | | Environmental and Social Management Plan (ESMP) | | |
|  | | Annex 7 | | Summary of consultations and stakeholder engagement plan | | |
|  | | Annex 8 | | Gender assessment and project level action plan | | |
|  | | Annex 9 | | Legal due diligence (regulation, taxation and insurance) | | |
|  | | Annex 10 | | Procurement plan | | |
|  | | Annex 11 | | Monitoring and evaluation plan | | |
|  | | Annex 12 | | AE fee request | | |
|  | | Annex 13 | | Co-financing commitment letter, if applicable | | |
|  | | Annex 14 | | Term sheet including a detailed disbursement schedule and, if applicable, repayment schedule | | |
| **H.2. Other annexes as applicable** | | | | | | | |
|  | | Annex 15 | Evidence of internal approval | |
|  | Annex 16 | | Map(s) indicating the location of proposed interventions | | |
|  | Annex 17 | | Theory of Change | | |
|  | Annex 18 | | Project Contribution to SDGs  Annex 19: Working Paper on Project Costs & Financing and EFA | | |

1. Draft Version of the GCF Country Programme dated December 2019. [↑](#footnote-ref-1)
2. Each of national executing entities have legal personality independent from the Kingdom of Jordan. According to Article 47 of the Jordanian constitution, every minister is responsible for the conduct of all matters pertaining to his or her ministry and that he or she refers to the prime minister any arising matter that does not fall within his or her competence. [↑](#footnote-ref-2)
3. 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. It aims to help governments, businesses and communities better prioritize investments for a more efficient response to the immediate global challenges ahead [↑](#footnote-ref-3)
4. National Adaptation Plan. February 2020. Ministry of Environment. Government of Jordan. [↑](#footnote-ref-4)
5. Based on European Centre for Medium-Range Weather Forecasts (ECMWF) ERA5 atmospheric reanalysis of the global climate product. [↑](#footnote-ref-5)
6. The National Adaptation Plan (NAP) will be officially published at the end of 2020. [↑](#footnote-ref-6)
7. Annex 2 pages 41🡪58 includes a climate brief per each of the identified governorates. [↑](#footnote-ref-7)
8. Poverty Pockets are districts with a average poverty level higher than 25% [↑](#footnote-ref-8)
9. Additional details are available in Annex 2 pages 34🡪36. [↑](#footnote-ref-9)
10. Additional details on the reference policy framework is available in Annex 2, pages 20🡪36. [↑](#footnote-ref-10)
11. The use of water collected via the rainwater harvesting systems will not be used for drinking purposes as dictated by the national law. Drinking water quality in Jordan is governed by Jordanian Standard 286 (JS286) which is adapted based on the World Health Organization (WHO) guidelines for drinking water quality.   
     [↑](#footnote-ref-11)
12. A team of technical specialists comprising a water engineer and an M&E specialist will provide guidance to MWI and oversight of service providers on all technical aspects of component 1 [↑](#footnote-ref-12)
13. Such varieties – old and under used varieties of barley - are available at the National Center for Agriculture Research (NARC). These are not OGM. [↑](#footnote-ref-13)
14. . Mid-Term Review Report: Rural Economic Growth and Employment Project. IFAD. November. 2018. [↑](#footnote-ref-14)
15. This includes suppliers of water efficient technologies such as drip and sprinkler irrigation, suppliers of water saving gadgets, low cost green-house technology and grow bags and wicking beds, etc. [↑](#footnote-ref-15)
16. The extension agents of the MoA are staff of the ministry under national contract. All the identified profiles are already available at the ministry and deployed in target areas. [↑](#footnote-ref-16)
17. Preliminary discussions with JUST indicated a strong interest and commitment to participate in the project. [↑](#footnote-ref-17)
18. The representatives in the forums will be selected by the Extension Department of MoA, local Government representatives and from the participants of the project. The overall responsibility will be with the PMU to coordinate. [↑](#footnote-ref-18)
19. Including the Program Management Unit (PMU) of the MWI (A chart reporting the setup of the MWI and the responsibility of the different agencies including the PMU that is not a project related structure is available in Annex 2 page 33). The PMU was established in the late 1996 and it is responsible for a vast array of functions related to the regulation of water supply and wastewater utilities, the promotion of private sector participation in the water sector and MWI planning and execution. [↑](#footnote-ref-19)
20. Technical experts will work with their counterparts in the relevant ministries to ensure that national strategies and international commitments such as the NDCs are supported by the appropriate laws and regulations. [↑](#footnote-ref-20)
21. While there will be opportunities for CSO to participate in the FFS, the process is designed ad hoc for farmers therefore the two actions cannot be merged. [↑](#footnote-ref-21)
22. A list of projects and case studies related to FAO and UNDP work in Jordan is available here: <http://www.fao.org/countryprofiles/index/en/?iso3=JOR> and <https://www.jo.undp.org/> [↑](#footnote-ref-22)
23. The landscape plans collect/structure hydrological information, including on aquifers, according to hydrological boundaries (i.e., water available in a specific sub-basin, flood risks). However, when it comes to presenting decision-relevant information needed to prioritize investments based on the hydrological analysis, the landscape plans will (1) present information at the administrative level because administrative entities will be in the end tasked with operationalizing the investment (2) provide national authorities with the evidence-base needed to prioritize interventions which is currently lacking. [↑](#footnote-ref-23)
24. A host of these are available in the market such as water breaker, water pebble, shower drop, tap inserts, etc. [↑](#footnote-ref-24)
25. Finance Ministry’s monthly bulletin. July 2019. Government of Jordan. [↑](#footnote-ref-25)
26. Jordan Economic Growth Plan 2018 - 2022 The Economic Policy Council. The Economic Policy Council. [↑](#footnote-ref-26)
27. USDA Foreign Agricultural Service, 2015. Market Overview and Guide to Jordanian Market Requirements. [↑](#footnote-ref-27)
28. The average cost for a household to install the water efficient devices is expected to be USD 100 per hh (7,850) and for public buildings (400) it is expected that the cost will be USD 200. [↑](#footnote-ref-28)
29. *“Governments, development agencies, and the private sector need to collaborate to strengthen knowledge and capacity for managing climate risks (…) and concerted capacity-building, particularly at the local level, is needed to move from improved information to better decisions”.* [↑](#footnote-ref-29)
30. National Adaptation Plan to Climate Change in Jordan. MoE. February 2020. [↑](#footnote-ref-30)
31. Ibid. February 2020. [↑](#footnote-ref-31)
32. World Bank. 2010. <https://borgenproject.org/transient-poverty-in-jordan/> [↑](#footnote-ref-32)
33. Jordan Water Sector Facts and Figures. http://www.mwi.gov.jo/sites/ [↑](#footnote-ref-33)
34. Rural Women and Climate Change in Jordan UN-Women. 2016. <https://data2.unhcr.org/en/documents/download/66494> [↑](#footnote-ref-34)
35. The assumptions used are detailed and explained in Table 37 in Annex 2. [↑](#footnote-ref-35)
36. National Adaptation Plan to Climate Change in Jordan. MoE. February 2020. [↑](#footnote-ref-36)
37. An assessment of policies, institutions and regulations for water harvesting, solar energy, and groundwater in Jordan, (FAO, 2018) [↑](#footnote-ref-37)
38. 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 [↑](#footnote-ref-38)
39. UNDCC [↑](#footnote-ref-39)
40. [OCHA, 2012](https://reliefweb.int/sites/reliefweb.int/files/resources/Jordan.pdf). [↑](#footnote-ref-40)
41. The Economic Policy Council, Jordan Economic Growth plan2018 - 2022 [↑](#footnote-ref-41)
42. <http://www.dos.gov.jo/dos_home_e/main/linked-html/household/2017/G4/Table1G4_Jor.pdf> [↑](#footnote-ref-42)
43. Department of Statistics. Government of Jordan. 2019 [↑](#footnote-ref-43)
44. Turning the Corner. Jordan’s Path to Growth. Jordan Five Year Growth Matrix. 2019. [↑](#footnote-ref-44)
45. MoE. Climate Change National Adaptation Plan. [↑](#footnote-ref-45)
46. MoE. Draft Jordan GCF Country Programme. December 2019. [↑](#footnote-ref-46)
47. FAO (2015) Water along the food chain in Jordan. FAO Investment Centre. FAO/EBRD Cooperation. [↑](#footnote-ref-47)
48. RIMA methodology can be consulted at: <http://www.fao.org/emergencies/resources/documents/resources-detail/en/c/416587/>. [↑](#footnote-ref-48)
49. 2 Universities (Architecture, and Civil Engineering) and 2 Vocational Training Institutes (Masonry, plumber). [↑](#footnote-ref-49)
50. 3 Universities (Architecture, Civil Engineering and Agriculture) and 3 Vocational Training Institutes (Masonry, plumber and agriculture). [↑](#footnote-ref-50)
51. A report by women’s Rights Campaigners. <https://www.middleeasteye.net/news/jordanian-women-risk-violence-work-despite-reforms-report>. Action Aid. [↑](#footnote-ref-51)