ADAPTATION FUND

AFB/PPRC.10/6
3 December 2012

Adaptation Fund Board
Project and Programme Review Committee
Tenth Meeting
Bonn, Germany, 11-12 December 2012

PROPOSAL FOR JORDAN

I. Background

1. The Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund, adopted by the Adaptation Fund Board, state in paragraph 42 that regular adaptation project and programme proposals, i.e. those that request funding exceeding US$ 1 million, would undergo either a one-step, or a two-step approval process. In case of the one-step process, the proponent would directly submit a fully-developed project proposal. In the two-step process, the proponent would first submit a brief project concept, which would be reviewed by the Project and Programme Review Committee (PPRC) and would have to receive the approval by the Board. In the second step, the fully-developed project/programme document would be reviewed by the PPRC, and would finally require Board's approval.

2. The Templates Approved by the Adaptation Fund Board (Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund, Annex 3) do not include a separate template for project and programme concepts but provide that these are to be submitted using the project and programme proposal template. The section on Adaptation Fund Project Review Criteria states:

> *For regular projects using the two-step approval process, only the first four criteria will be applied when reviewing the 1st step for regular project concept. In addition, the information provided in the 1st step approval process with respect to the review criteria for the regular project concept could be less detailed than the information in the request for approval template submitted at the 2nd step approval process. Furthermore, a final project document is required for regular projects for the 2nd step approval, in addition to the approval template.*

3. The first four criteria mentioned above are:
   1. Country Eligibility,
   2. Project Eligibility,
   3. Resource Availability, and
   4. Eligibility of NIE/MIE.

4. The fifth criterion, applied when reviewing a fully-developed project document, is:
   5. Implementation Arrangements.

5. In its 17th meeting, the Adaptation Fund Board decided (Decision B.17/7) to approve “Instructions for preparing a request for project or programme funding from the Adaptation Fund”, contained in the Annex to document AFB/PPRC.8/4, which further outlines applicable review criteria for both concepts and fully-developed proposals.

6. Based on the Adaptation Fund Board Decision B.9/2, the first call for project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Adaptation Fund was sent out on April 8, 2010.

7. According to the Adaptation Fund Board Decision B.12/10, a project or programme proposal needs to be received by the secretariat not less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

8. The following programme concept titled "Increasing the resilience of poor and vulnerable communities to climate change impacts in Jordan" was submitted by the Ministry of Planning and International Cooperation of Jordan (MOPIC), which is the National Implementing Entity of the Adaptation Fund for Jordan. This is the first submission of this proposal.

9. The current submission was received by the secretariat in time to be considered in the 19th Adaptation Fund Board meeting. The secretariat carried out a technical review of the programme concept, assigned it the diary number JOR/NIE/Multi/2012/1, and filled in a review sheet.

10. In accordance with a request to the secretariat made by the Adaptation Fund Board in its 10th meeting, the secretariat shared this review sheet with MOPIC, and offered it the opportunity of providing responses before the review sheet was sent to the Project and Programme Committee of the Adaptation Fund.

11. The secretariat is submitting to the Project and Programme Review Committee the summary and, pursuant to decision B.17/15, the final technical review of the programme, both prepared by the secretariat, along with the final submission of the proposal in the following section. Finally, MOPIC has submitted a Project Formulation Grant Request, which is also available as an addendum to this document.

II. Programme Summary

Jordan – Increasing the resilience of poor and vulnerable communities to climate change impacts in Jordan
Implementing Entity: MOPIC

Project/Programme Execution Cost: USD 364,200
Project/Programme Total Cost: USD 9,105,000
Implementing Fee: USD 500,775
Finance Requested: USD 9,969,975

Project/Programme Background and Context:

According to the proposal, climate change is expected to have a detrimental impact upon human development and poverty in Jordan. This will occur by increasing the severity of resource scarcity, which in turn makes access to natural resources more difficult. The poor are expected to be the most vulnerable to the impacts of climate change as they possess the least assets and resources to adapt to its impacts. According to the proposal, it has been developed with focus on water and agriculture sectors in Jordan, as they are the most affected sectors by the climate change.

The overall objective of the proposed programme is to increase resilience of the poor and vulnerable communities in Jordan to climate change related risks of water shortage, food insecurity, and energy–related issues through pilot activities and intervention to mainstream climate change considerations into these sectors. The programme aims to:

(i) build the capacities of local communities and institutions, increase their knowledge to manage climate change risks affecting their living standards and livelihoods;
(ii) enhance the food security of citizens with focus on poverty pockets, and the small-holder farmer sustainable food production;
(iii) improve water use efficiency and protect quality and quantity of scarce water resources in rural communities of Jordan, and to ensure community involvement and motivate public participation in water management issues; and
(iv) reduce the country‟s emissions of GHGs and to enhance access to energy services in remote communities and adopting renewable energy sources.

Component 1: Community empowerment and capacity building (USD 2,645,000)
The main goal of this component is to empower communities, inclusive of the more vulnerable, to participate in reducing the effect of climate change on their live, creating their own economic opportunities and improving the quality of their lives. This component focuses on strengthening the institutional and technical capacity of both: communities and key stakeholders.
It also aims to promote awareness and knowledge at the community level on climate change, food insecurity related risks, and to increase adaptive capacity to reduce those risks at the community level, especially those of highly food insecure communities to respond to the impacts of climate change.
In addition, the component aims to help the targeted poor communities in reducing their energy bills by at least 25 US$/Month/family, through introduction of an innovative technology that provides clean, cheap, renewable, and limitless energy.

Component 2: Food security, new agricultural practices in Jordan towards poverty alleviation (USD 2,460,000)

Agriculture has to adapt to significant impacts of climate change, while at the same time providing food for a growing population. Agriculture is one of the few sectors that can both contribute to mitigation and sequestration of carbon emissions and accounting for agriculture‟s carbon footprint is necessary, particularly if agriculture is included in greenhouse gas reduction commitments.

This component is meant to achieve the following main objectives:

1. New farm management practices and adoption of new varieties, crops and animal breeds more appropriate to future climate conditions.
2. To enhance the availability of small-holder farmer sustainable food production, and to enhance the livelihoods for the poor and food insecure.

According to the proposal, to meet the first component objective, the programme would foster the application of existing technologies and invest in R&D for new technologies to reduce GHG emissions and increase productivity. Further it would facilitate adaptation by increasing producer resilience to climate change, and that compensate the most vulnerable groups, and exploit the local plant species and introducing new resources for sustainable rising of non-food, biomass crops as forages on marginal lands.

To meet the second component objective, the programme would implement a suite of activities that would enhance the capacity for households, farmers, and rural women to produce food, and increase the production of food by small farmers, as well as increase the return from farm product for rural households through adopting new technologies, and increased poor households‟ income, through agricultural related activities.

Component 3: Integrated water management, treatment, reuse of grey water and desalination of brackish water towards a sustainable water availability for vulnerable communities in Jordan (USD 4,000,000)

This component would include three sub-components related to water management:

The first sub-component would be focused on managing water demand, maximizing the utilization and minimizing waste of water to generate water savings as an important source of additional water to help bridge the gap between supply and demand. This would be piloted in some governorates of Jordan, for example Al-Mafraq in the North and Maan in the South where 15 out of the 32 Poverty pockets are located. The activities would empower and enable communities in rural Jordan to address water scarcity by improving water use efficiency and water availability; allow providing reclaimed water for irrigation and thus reduce the demand on water for agriculture in the community, which would be achieved by establishing a proper sewage collection, treatment and reuse; enhance the use of elements of the environment that otherwise go to waste (burned or dumped) by recycling them to a usable form, also protecting groundwater resources from chemical pollutants that percolate to the deeper soil layers; provide employment opportunities for the local communities and improvement of their living conditions; raise awareness of water and environmental situation among the local society; and decrease the abstraction from the Azraq basin and this is the long impact on groundwater resources.

The second sub-component would be focused on integrated grey-water management policies & technologies for vulnerable communities in Jordan. The activities would develop community-based know-how by facilitating dialogue over grey water management issues and by providing the opportunity of interaction of communities with already existing relevant activities in Jordan; identify the technical, political, social and financial issues, problems and constraints currently facing grey water management in small communities; assess impacts of current practices on the well-being of the communities and on the available water resources; work with the communities in identifying best techniques, technologies and practices for grey water treatment and reuse; test and validate with the participation of the communities a selected system that is user

friendly, cost effective, socially acceptable and technologically sound to ensure its sustainable application; use continuous multi-stakeholder dialogue to recommend policies and institutional frameworks for wastewater collection, treatment and reuse programs and strategies in rural communities, and to define the roles and responsibilities of all involved stakeholders; build the capacity of various involved stakeholders on different aspects of grey water treatment and reuse; and disseminate the recommendations/ findings/ knowledge gained both nationally and regionally using a wide range of methods designed to target different audiences.

The third sub-component would be focused on desalination of brackish water drilled from shallow aquifers. It would aim to provide a non-conventional resource of water from brackish groundwater wells during summer time, and protect agricultural investments in Citrus Orchads from shortage of water.

ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: REGULAR PROGRAMME CONCEPT

Country/Region: **Jordan**
Project Title: **Increasing the resilience of poor and vulnerable communities to climate change impacts in Jordan**
AF Project ID: **JOR/NIE/Multi/2012/1**
IE Project ID:
Requested Financing from Adaptation Fund (US Dollars): **9,969,975**
Regular Project Concept Approval Date: **n/a**
Anticipated Submission of final RP document (if applicable): **n/a**
Reviewer and contact person: **Mikko Ollikainen**
Co-reviewer(s): **Mohamed Bakarr**
NIE/MIE Contact Person: **Mohammad Al-Adyleh**

Review Criteria	Questions	Comments on 29 October 2012	Comments on 19 November 2012
Country Eligibility	1. Is the country party to the Kyoto Protocol?	Yes.	
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	Yes.	

Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	No. The endorsement letter has been signed by Secretary General, Mr. Saleh Al-Kharabsheh on behalf of Minister of Planning and International Cooperation, Mr. Jafar Abed Hassan. The Designated Authority for Jordan communicated earlier to the Adaptation Fund Board is Mr. Nasser Shraideh, Minister of Environment. Also, the letter of endorsement does not follow the currently required format. **CAR1:** Please submit a Letter of Endorsement signed by the Designated Authority. If the Designated Authority has changed, please submit a letter, signed at the ministerial level, informing such change, and a letter signed by the new Designated Authority. For submission of the LoE, please use the template available at http://www.adaptation-fund.org/page/proposal-submission-materials.	**CAR1:** Addressed. Jordan has appointed a new Designated Authority, and an endorsement letter signed by him is provided.

	2. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?	Requires clarification. An overarching comment: the programme concept does not follow the proposal template made available by the Adaptation Fund Board. While the proposed programme may have major relevance for a country that clearly faces climate change risks in addition to non-climate change caused biophysical challenges such as land degradation, the programme concept does not provide adequate information of the anticipated impacts of climate change on the sectors the programme wishes to target, based on specific climate change scenarios. It also does not provide adequate information of the current situation of those sectors, including the non-climatic development challenges they face. The programme lacks focus and does not reflect a concerted effort to address adaptive capacity and implement concrete adaptation activities at national level. It goes from community empowerment to food security to water management to renewable energy in a very business-as-usual way, which raises questions about the project's appropriateness for AF financing. The concept does not explain why the set of selected sectors and approaches were chosen. Currently, the programme components do not appear to form a coherent set where activities would complement each other. The activities, though	

		potentially beneficial for climate change adaptation, do not appear to be focused on adaptation but rather on the sector development goals which would be present even without consideration of climate change impacts. Component 4 as a whole addresses challenges related to energy security, and it has not been explained how energy security in the country is a sector affected negatively by the impacts of climate change. To represent a strong design, the proposed programme should either focus on adaptation in a specific sector (such as water resource management or agricultural production), or pursue an integrated approach within a defined geographical context where affected populations are likely to benefit directly from increase adaptive capacity and resilience. **CR1:** Please reformulate the programme proposal using the template available at http://www.adaptation-fund.org/page/proposal-submission-materials, addressing each of the areas included in Parts I, II and IV, which are required to be filled in in the case of concept proposals (Part III and more detailed information on other parts is required for fully developed proposals). Please refer to the instructions document available on the same webpage for more information.	**CR1:** Addressed. The programme concept follows the template.

		CR2: Please outline the predicted impacts of climate change to the country and especially the sectors tackled by this proposal, in the light of best available climate change scenarios. **CR3:** Please outline the non-climatic status quo and challenges of the sectors tackled by the proposal, covering dimensions such as economic development, livelihoods, poverty and others, as applicable. **CR4:** Please explain why the selected sectors and activities were chosen based on climate change adaptation priorities of the country. **CR5:** Please reconsider the set of activities in the programme. The programme should either focus on adaptation in a specific sector (such as water resource management or agricultural production), or pursue an integrated approach within a defined geographical context where affected populations are likely to benefit directly from increase adaptive capacity and resilience. Wherever possible, please improve coherence so that activities complement each other in a synergistic manner.	**CR2:** Not adequately addressed. The proposal has provided general statements about changes in precipitation but does not provide adequate details on which scenarios these are based on and what magnitude of change is expected. **CR3:** Addressed. However, as the programme needs to be further focused (CR below) the contextual description will need to be updated. **CR4:** Not adequately addressed. The selection of sectors and activities is presented in the context of sector policies but not explicitly in the context of adaptation priorities of the country. **CR5:** Not adequately addressed. The programme has not focused on a specific sector or pursued an integrated approach within a defined geographical context where affected populations are likely to benefit directly from increase adaptive capacity and resilience.

		CR6: In light of the climate change scenarios, non-climatic factors and country priorities (above) please considerably strengthen the climate change reasoning and orientation of the proposed activities, taking into account a need to do so in a coherent manner (above). **CR7:** Please reconsider Component 4 which focuses on energy security, for which climate change adaptation reasoning has not been given. Please either justify inclusion of the component by explaining why the component is necessary for helping sectors and communities to adapt to the negative impacts of climate change, or omit the component.	**CR6:** Not adequately addressed. The climate change reasoning has not been strengthened, and it is not clear how the programme would represent climate change adaptation and not business-as-usual development. **CR7:** Not adequately addressed. Component 4 has been omitted but activities from it with the total budget of US$645,000 have now been included under Component 1. Still, the reasoning in those activities, on solar energy, is presented as business-as-usual community support, and the causal link with climate change adaptation is not made.

	3. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations?	Requires clarification. The programme concept does not describe the economic, social and environmental benefits in any detail. It does not state in which parts of the country the programme would take place and with which communities. The proposal mentions women as vulnerable stakeholders and with regards to some of the proposed activities that gender considerations would be taken into account. However, the proposal does not explain in the background section how gender issues are linked to the adaptation/development challenges to be addressed in the baseline situation, and how the programme would address and involve women as beneficiaries specifically. **CR8:** Please elaborate on the economic, social and environmental benefits of all components of the programme, comparing to the baseline situation. **CR9:** Please identify the region in the country where the programme would take place, and at least broadly outline who the beneficiaries would be and how they have been / would be selected.	**CR8:** Not adequately addressed. Even though general statements on providing economic, social and environmental benefits have been provided, the fact that the description of activities remains vague leads to the conclusion that the benefits description is not substantial enough. **CR9:** Addressed. The programme is planned to target 20 identified poverty pockets in four governorates: Mafraq, Ma'an, Balqa and Aqaba. The main target beneficiaries would be resource-poor farmers and livestock producers.

		CR10: Please explain how gender issues are linked to the adaptation/development challenges to be addressed, and how the programme would specifically address the adaptation needs of women and other vulnerable groups and involve them in programme implementation.	**CR10:** Addressed adequately for a concept stage proposal. The revised proposal describes focus on women and activities to be undertaken to that effect.
	4. Is the project / programme cost effective?	Requires clarification. The proposal does not provide a logical explanation of the selected scope and approach. Given the sparse information in the proposal, it is not possible to conclusively assess cost effectiveness. The fact that the proposed programme is a collection of activities in different sectors with no clear linkages between them is typically not conducive for cost-effectiveness. **CR11:** Please provide a logical explanation of the selected scope and approach of the programme, and explain why they are the most cost-effective ones.	**CR11:** Not adequately addressed. The revised proposal explains the role of agriculture and water management in relation to rural development and food security but does not explain or justify the selection of activities which continues to appear a collection of activities with inadequate mutual linkages and coherence. Based on the information provided, the proposed programme does not appear to be cost-effective.

	5. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?	Requires clarification. While the programme is proposed to develop policies in various areas, it only refers to few existing policies explicitly, i.e. the Economic and Social Productivity Programs Unit (ESPP) programs, including the Enhanced Productivity Centers (EPC) program, Community Empowerment Program in Poverty Pockets, Small and Micro-finance Program, and Direct Interventions (p. 24). The proposal does not elaborate on the existing policy framework for agriculture, which the programme is proposed to reform (p.4), nor does it describe the existing policy directions on food security and it only provides general notions on the policy framework on wastewater management. The proposal does not elaborate how it would address the priorities and strategies of the country as outlined in the Second National Communications to the UNFCCC, or in Jordan's Water Strategy 2008-2012 "Water for Life". **CR12:** Please explain how the proposed programme would be aligned with the priorities of the key climate-related and sector specific national (and sub-national as applicable) policies, plans and strategies, identifying each of them.	**CR12:** Not adequately addressed. The revised proposal explains in sufficient detail the status of agricultural and water management policies in the country, and it states compliance with those policies. However, it does not explain how the proposed programme would be aligned with the specifically climate-change related strategies of the country. The relevant section of the proposal links the programme only to mitigation-related climate goals.

	6. Does the project / programme meet the relevant national technical standards, where applicable?	Requires clarification. The proposal has not identified relevant national technical standards, and has not stated compliance, apart from those related to wastewater management (p. 30). **CR13:** Please explain how the proposed programme would ensure compliance with national technical standards, including Environmental Impact Assessments (EIAs), building codes, water quality regulations, and sector-specific regulations as applicable.	**CR13:** Not adequately addressed. The revised proposal states that the programme would ensure compliance with national technical standards "as needed" but it does not specify which standards would apply to the specific activities of the programme.
	7. Is there duplication of project / programme with other funding sources?	Requires clarification. The programme concept has not identified other projects and programmes taking place in the country in the sectors it plans to address, and therefore has also not explained synergies and lack of duplication with them. **CR14:** Please identify potentially overlapping adaptation and sectoral projects / programmes, and explain lack of overlap / complementarity of the proposed programme in a logical manner.	**CR14:** Not adequately addressed. There are on-going climate change adaptation projects in the country but the revised proposal still does not specify how it would avoid overlap and ensure complementarity with these other initiatives. It only makes a broad statement of making use of the lessons learned of the other. It does not explain whether and how activities would be coordinated with other initiatives.

	8. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	Requires clarification. The proposed programme includes knowledge management activities in all components but those do not constitute a coherent knowledge management strategy. Lack of a focused approach to knowledge management involves a risk of losing cost-effectiveness. **CR15:** Please consider re-grouping knowledge management activities in the project together, so as to benefit from synergies in information collection, knowledge management and dissemination.	**CR15:** Not addressed. The proposed programme does not include a coherent knowledge management strategy. The revised proposal states that “outputs are to be communicated in a systematic manner among the executing institutions and all intended target groups” but it does not explain how and by whom information would be collected, managed and stored in a coordinated and efficient way.

	9. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations?	Requires clarification. The programme concept does not mention any consultations that have taken place or are planned to take place during programme development. In contrast, some of the proposed programme components include consultation activities. **CR16:** Please explain which kind of consultative process has taken place during programme concept development, and how the views of the ultimate beneficiaries have been taken into account. Please note that if a full programme proposal is planned to be submitted later on, a comprehensive consultative process has to take place before its submission, and should involve all direct and indirect stakeholders of the project/programme, including vulnerable groups and taking into account gender considerations, and the full proposal should be informed by those consultations. Except for extraordinary circumstances, consultation cannot be postponed to project implementation phase.	**CR16:** Not adequately addressed. The proposal does not include explanation of consultation having taken place at any level for the purposes of the proposed programme explicitly. The proposal explains that it draws on earlier continuous consultation between the proponent and various local level stakeholders. Such consultation has not taken place for the purposes of the development of this proposal but in another context. Adaptation to climate change is intrinsically a cross-sectoral challenge, and consultation with relevant line ministries/agencies would be necessary in the very beginning of programme development, complemented by consultation of relevant local stakeholders, to inform programme design.

	10. Is the requested financing justified on the basis of full cost of adaptation reasoning?	Unclear. The proposal has not provided justification based on full cost of adaptation reasoning, and as explained above the information in the proposal is not detailed enough to assess it indirectly. **CR17:** Please provide a justification of the requested funding based on full cost of adaptation reasoning.	**CR17:** Not adequately addressed. The climate change reasoning of the proposal is unclear, and as noted other adaptation-related projects in the same sectors pose a risk of overlap which has not been well explained.
	11. Is the project / program aligned with AF's results framework?	Requires clarification. Some activities in the proposed programme may be aligned with the AF results framework but their presentation from the adaptation point of view, rather than business-as-usual development activities, is unclear. Further, it is unclear how the activities on energy security represent adaptation to climate change (CRs above).	Continues to be unclear: adaptation reasoning of most programme activities remains unclear.

	12. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	Requires clarification. The programme concept does not address sustainability considerations of the outputs and outcomes of the programme. **CR18:** Please explain how the adaptation benefits achieved through the programme would be sustained after its end, and how they would enable replication and scaling up with other funds later on. Please explain the arrangements through which this would be achieved, taking into account sustainability and maintenance of any infrastructure or installations to be developed, policies and governance arrangements to be developed and implemented, knowledge to be generated, management and other capacity to be improved, etc. All key areas of sustainability should be addressed, including but not limited to economic, social, environmental, institutional, and financial.	**CR18:** Not adequately addressed. The proposal refers to four areas that are suggested to ensure sustainability: 1) resource management solutions to be implemented through activities of the programme, 2) institutional sustainability to be established through involvement and capacity building of stakeholders, and 3) social sustainability to be achieved through stakeholder participation, and 4) financial and economic sustainability to be ensured by economic gains from the project. While these areas are beneficial in contributing to overall sustainability, what seems to be missing in the current programme design is a plan for how the programme outputs would feed into the formal policy/institutional framework of resource management in the face of climate change, and how they would promote integrated management and allow for replication and scaling up outside of the scope of the programme. Similarly, plans for maintenance of processes and outputs developed by the programme, after its end, have not been provided.

Resource Availability	1. Is the requested project / programme funding within the cap of the country?	Requires clarification. Per Adaptation Fund Board decision, the maximum allocation per country is USD 10,000,000. The current proposal, with the budget of USD 10,000,000, is submitted together with a programme formulation grant (PFG) request of USD 30,000. As the PFG is not part of the programme budget, the total allocation would be USD 10,030,000, which is above the limit set by the Board. **CR19:** Please adjust the budget of the proposed programme so that requested total allocation for the country is not more than USD 10,000,000.	**CR19:** Addressed.
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?	Requires clarification. Currently the budget for Project Cycle Management Fee has not been included in the total funding request. **CR20:** Please clarify whether IE Fee is requested and if yes, adjust the budget accordingly.	**CR20:** Addressed. USD 500,775 has been budgeted for IE Fee, which represents 5.3 per cent of the programme budget before the fee.
	3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?	No. Programme execution cost is budgeted at 10%, which is above the maximum level put in place by the Adaptation Fund Board. **CAR2:** Please adjust the execution costs so that they are at or below of 9.5% of the total programme cost. **CAR3:** Please identify the executing entities.	**CAR2:** Addressed. The execution cost has been adjusted to USD 364,200, which represents 3.8% of the programme budget before the fee. **CAR3:** Addressed. The revised proposal identifies a number of agencies that would function as executing entities.
Eligibility of NIE/MIE	4. Is the project/programme submitted through an eligible NIE/MIE that has	Yes.	

	been accredited by the Board?		
Implementation Arrangement	1. Is there adequate arrangement for project / programme management?	(n/a)	
	2. Are there measures for financial and project/programme risk management?	(n/a)	
	3. Is a budget on the Implementing Entity Management Fee use included?	(n/a)	
Eligibility of NIE/MIE	4. Is an explanation and a breakdown of the execution costs included?	(n/a)	
Implementation Arrangement	5. Is a detailed budget including budget notes included?	(n/a)	
	6. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators?	(n/a)	
	7. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	(n/a)	

	8. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	(n/a)	
	9. Is a disbursement schedule with time-bound milestones included?	(n/a)	

Technical Summary	The main goal of the programme is to increase resilience of the poor and vulnerable communities in Jordan to climate change related risks of water shortage, food insecurity, and energy–related issues through pilot activities and intervention to mainstream climate change considerations into these sectors. • To build the capacities of local communities and institutions, increase their knowledge to manage climate change risks affecting their living standards and livelihoods. • To enhance the food security of citizens with focus on poverty pockets, and the small-holder farmer sustainable food production. • To improve water use efficiency and protect quality and quantity of scarce water resources in rural communities of Jordan, and to ensure community involvement and motivate public participation in water management issues. • To enhance energy security and to save foreign currency by reducing utilization of imported energy, adopting renewable energy sources, promoting the local manufacturing of renewable energy technologies, development of the local manufacturing industry, reducing the country's emissions of GHGs and enhancing access to energy services in remote communities. The initial submission of the programme concept did not follow the proposal template made available by the Adaptation Fund Board. Following initial technical review, the proponent submitted a revised proposal which followed the template but still did not include information under some of the requested sections. The initial technical review found that while the proposed programme may have major relevance for a country that clearly faces climate change risks in addition to non-climate change caused biophysical challenges such as land degradation, the programme concept did not provide adequate information of the anticipated impacts of climate change on the sectors the programme wishes to target, based on specific climate change scenarios. It also did not provide adequate information of the current situation of those sectors, including the non-climatic development challenges they face. The programme lacked focus and did not reflect a concerted effort to

	address adaptive capacity and implement concrete adaptation activities at national level. It spanned from community empowerment to food security to water management to renewable energy in a very business-as-usual way, which raised questions about the project's appropriateness for AF financing. The concept did not explain why the set of selected sectors and approaches were chosen. The programme components did not appear to form a coherent set where activities would complement each other. The activities, though potentially beneficial for climate change adaptation, did not appear to be focused on adaptation but rather on the sector development goals which would be present even without consideration of climate change impacts. Component 4 as a whole addressed challenges related to energy security, and it had not been explained how energy security in the country was a sector affected negatively by the impacts of climate change. The initial technical review concluded that in order to represent a strong design, the proposed programme should either focus on adaptation in a specific sector (such as water resource management or agricultural production), or pursue an integrated approach within a defined geographical context where affected populations are likely to benefit directly from increase adaptive capacity and resilience. The initial technical review had identified three issues, related to the execution function, where corrective action is required to comply with AF requirements: **CAR1:** Please submit a Letter of Endorsement signed by the Designated Authority. If the Designated Authority has changed, please submit a letter, signed at the ministerial level, informing such change, and a letter signed by the new Designated Authority. For submission of the LoE, please use the template available at http://www.adaptation-fund.org/page/proposal-submission-materials. **CAR2:** Please adjust the execution costs so that they are at or below of 9.5% of the total programme cost. **CAR3:** Please identify the executing entities. In addition, the initial technical review had made a number of clarification requests, that would need to be addressed to support a positive recommendation on the concept: **CR1:** Please reformulate the programme proposal using the template available at http://www.adaptation-fund.org/page/proposal-submission-materials, addressing each of the areas included in Parts I, II and IV, which are required to be filled in in the case of concept proposals (Part III and more detailed information on other parts is required for fully developed proposals). Please refer to the instructions document available on the same webpage for more information. **CR2:** Please outline the predicted impacts of climate change to the country and especially the sectors tackled by this proposal, in the light of best available climate change scenarios. **CR3:** Please outline the non-climatic status quo and challenges of the sectors tackled by the proposal, covering dimensions such as economic development, livelihoods, poverty and others, as applicable. **CR4:** Please explain why the selected sectors and activities were chosen based on climate change adaptation priorities of the country. **CR5:** Please reconsider the set of activities in the programme. The programme should either focus on adaptation in a specific sector (such as water resource management or agricultural production), or pursue an

	integrated approach within a defined geographical context where affected populations are likely to benefit directly from increase adaptive capacity and resilience. Wherever possible, please improve coherence so that activities complement each other in a synergistic manner. **CR6:** In light of the climate change scenarios, non-climatic factors and country priorities (above) please considerably strengthen the climate change reasoning and orientation of the proposed activities, taking into account a need to do so in a coherent manner (above). **CR7:** Please reconsider Component 4 which focuses on energy security, for which climate change adaptation reasoning has not been given. Please either justify inclusion of the component by explaining why the component is necessary for helping sectors and communities to adapt to the negative impacts of climate change, or omit the component. **CR8:** Please elaborate on the economic, social and environmental benefits of all components of the programme, comparing to the baseline situation. **CR9:** Please identify the region in the country where the programme would take place, and at least broadly outline who the beneficiaries would be and how they have been / would be selected. **CR10:** Please explain how gender issues are linked to the adaptation/development challenges to be addressed, and how the programme would specifically address the adaptation needs of women and other vulnerable groups and involve them in programme implementation. **CR11:** Please provide a logical explanation of the selected scope and approach of the programme, and explain why they are the most cost-effective ones. **CR12:** Please explain how the proposed programme would be aligned with the priorities of the key climate-related and sector specific national (and sub-national as applicable) policies, plans and strategies, identifying each of them. **CR13:** Please explain how the proposed programme would ensure compliance with national technical standards, including Environmental Impact Assessments (EIAs), building codes, water quality regulations, and sector-specific regulations as applicable. **CR14:** Please identify potentially overlapping adaptation and sectoral projects / programmes, and explain lack of overlap / complementarity of the proposed programme in a logical manner. **CR15:** Please consider re-grouping knowledge management activities in the project together, so as to benefit from synergies in information collection, knowledge management and dissemination. **CR16:** Please explain which kind of consultative process has taken place during programme concept development, and how the views of the ultimate beneficiaries have been taken into account. Please note that if a full programme proposal is planned to be submitted later on, a comprehensive consultative process has to take place before its submission, and should involve all direct and indirect stakeholders of the project/programme, including vulnerable groups and taking into account gender considerations, and the full proposal should be informed by those consultations. Except for extraordinary circumstances, consultation cannot be postponed to project implementation phase.

	CR17: Please provide a justification of the requested funding based on full cost of adaptation reasoning. **CR18:** Please explain how the adaptation benefits achieved through the programme would be sustained after its end, and how they would enable replication and scaling up with other funds later on. Please explain the arrangements through which this would be achieved, taking into account sustainability and maintenance of any infrastructure or installations to be developed, policies and governance arrangements to be developed and implemented, knowledge to be generated, management and other capacity to be improved, etc. All key areas of sustainability should be addressed, including but not limited to economic, social, environmental, institutional, and financial. **CR19:** Please adjust the budget of the proposed programme so that requested total allocation for the country is not more than USD 10,000,000. **CR20:** Please clarify whether IE Fee is requested and if yes, adjust the budget accordingly. The proponent submitted a revised proposal and a response sheet. While the revised proposal addressed all the CARs and provided information that addressed some of the CRs, the technical review finds that proposal does not provide adequate information of the context of the proposed programme, including both non-climatic challenges at the level relevant to the planned interventions (households and individuals involved in farming and animal husbandry) and expected climate change impacts that could exacerbate those challenges. As noted in the initial review, the programme lacks focus and does not reflect a concerted effort to address adaptive capacity and implement concrete adaptation activities at national level. It spans different sectors from community empowerment to food security to water management to renewable energy in a very business-as-usual way, which raises questions about the project's appropriateness for AF financing. The concept only gives very general explanation for the selected sectors and approaches. The programme components do not appear to form a coherent set where activities would complement each other. The activities, though potentially beneficial for climate change adaptation, do not appear to be focused on adaptation but rather on the sector development goals which would be present even without consideration of climate change impacts. The proposal mentions the second national communication and some of the findings on impacts of climate change but does not elaborate on the national strategies and priorities on climate change adaptation and how this proposed programme would be based on those. Component 4 of the initial version of the proposal, focusing on challenges related to energy security has been downscaled and integrated into Component 1 but those activities, related to solar power, have not been justified from an adaptation point of view. The technical review continues to conclude that in order to represent a strong design, the proposed programme should either focus on adaptation in a specific sector (such as water resource management or agricultural production), or pursue an integrated approach within a defined geographical context where affected populations are likely to benefit directly from increase adaptive capacity and resilience. A revised proposal should address the following issues:

	- The revised proposal should considerably strengthen its approach by focusing either on a specific sector or pursuing an integrated approach within a defined geographical context where affected populations are likely to benefit directly from increase adaptive capacity and resilience. Cost-effectiveness of the programme should be explained in light of the improved coherence of the programme design. - The proponent should ensure that relevant stakeholders at the government level, and a representative sample of local level stakeholders, including ultimate beneficiaries, are consulted specifically for the purposes of the design of this proposed programme before the revised proposal is formulated, and the revised proposal should reflect the inputs provided during such consultation (additional requirements apply for the full stakeholder consultation which would be necessary before the submission of the fully-developed programme document). - The revised proposal should elaborate the economic, social and environmental benefits of the programme based on the strengthened approach. - The revised proposal should elaborate on the climate change scenarios used as a basis for planning of the programme activities, providing more information on the scale of expected climate change impacts in the country, especially in the sector(s) the programme would target. - The revised proposal should explain how the sectors and activities have been selected in the context of the adaptation priorities of the country (while also referring to relevant sector policies), and how the proposed programme would be aligned with such strategies and plans. - The revised proposal should pay particular attention to strengthening climate change reasoning, elaborating how the programme would represent climate change adaptation as opposed to business-as-usual development. Activities that cannot be justified as climate change adaptation, or directly and crucially supporting adaptive activities, should be omitted. - Based on the more focused design that is needed, the revised proposal should identify the specific national technical standards that would be applicable for the programme, and state compliance. - The revised proposal should specify how it would avoid overlap and ensure complementarity with other initiatives in terms of specific programme content and coordination. - The revised proposal should strengthen the way in which the programme would manage information and knowledge in a systematic and efficient way. - The revised proposal should explain the sustainability of the proposed programme in a more comprehensive way including, inter alia, how the programme outputs would feed into the formal policy/institutional framework of resource management in the face of climate change, and how the programme would promote integrated management and allow for replication and scaling up outside of the scope of the programme. Similarly, explanation of maintenance of processes and outputs developed by the programme, after its end, should be provided.
Date:	19 November 2012

PART I: PROJECT / PROGRAMME INFORMATION

PROJECT/PROGRAMME CATEGORY**: Regular**
COUNTRY/IES**:** **JORDAN**
TITLE OF PROJECT/PROGRAMME: **Increasing the resilience of poor and vulnerable communities to climate change impacts in Jordan.**
TYPE OF IMPLEMENTING ENTITY: **National Implementing Entity**
IMPLEMENTING ENTITY**:** **Ministry of Planning and International Cooperation**
EXECUTING ENTITY/IES**:** **National Governmental Institutions and NGOs**
AMOUNT OF FINANCING REQUESTED**: $ 9,969,975** (In U.S Dollars Equivalent)

PROJECT / PROGRAMME BACKGROUND AND CONTEXT:

Jordan occupies an area of 89,318 square kilometres (km^2), around 80% of that is Badia (Semi-desert). The country's population was estimated at 6.113 million in 2010, of which 82% are urban population, while 18% are living in remote-rural areas. The climate of Jordan is predominately of the Mediterranean type, characterized by a hot dry summer and a cool wet winter. Observed climate variables in Jordan are showing increasing trends in temperature and decreasing trends in the annual precipitation. To that end, Agriculture in Jordan is one of the most vulnerable sectors to such climate changes, because the available water and land resources are limited as most of the country's land is arid.

The country is also facing a future of very limited water resources. Among the lowest in the world on a per capita basis, Jordan now is one of the fourth driest countries in the World. The current demand for water exceeds Jordan's available water resources, and the groundwater is being exploited at about twice its recharge rate, with hundreds of illegal wells. The annual per capita water availability has declined from 3600m3/year in 1946 to 145 m3/year today, and it is projected that the population will continue to grow to over 7.80 million by 2022, and the total projected water demand will be 1673 MCM by 2022.
Water for irrigation utilizes 71% of the water demand (2007) and 64% of water supply (2007). As municipal, industrial and tourism water use increases, irrigated agriculture in the highlands will need to be regulated and the by-laws will need to be reinforced.
Groundwater extraction for agriculture is beyond acceptable limits resulting in a groundwater deficit of 151 MCM in (2007).
The future challenges on water demand are enormous. The population growth due to regional instability, as was the case during the past decades, would increase water demand and impact the plans to reach a balanced demand and supply.

In 2008, World Food Programme (WFP) conducted the first food security survey at the household level in the poverty pockets (sub-districts with poverty rates exceeding 25%) in Jordan. The survey revealed that the rate of food insecurity reached 8% in the poverty pockets, averaging up to 35% in some areas. Food consumption patterns have changed dramatically for the poor, and most of them have gone through times were they did not find enough resources to cover their basic needs. At the household level, accessibility was found the source of food insecurity, aggravated by illiteracy, lack of assets and big family sizes.

Poverty in Jordan is estimated at 13.3% (2008). Of the total individuals in the country, 13.3% of the population or 813,029 individuals are estimated to live below the absolute poverty line. The rate of poverty in rural areas (21.4%) is almost double that of urban areas (11.4%) but the overall proportion of people living in rural areas (18.3%) is four times less than the proportion of people living in urban areas (81.7%) . Consequently, the total number of individuals living in poverty in rural Jordan is approximately 239,000 and the total number of individuals living in poverty in urban Jordan is approximately 571,000. The highest rates of poverty are found in the governorates of Mafraq (31.9%), Ma'an (24.2%), Tafilah (21.2%), Jerash (20.3%), and Balqa (19.7%).Despite that the numbers of the urban poor are higher; the incidence of chronic poverty, vulnerability to poverty, and food insecurity are seen to be significantly greater in rural areas. The poverty situation in Jordan varies across governorates. The government of Jordan identified thirty two 'poverty pockets' in 2010.

There is a link between agriculture, rural development, food security and self-sufficiency. It is thus essential to address the linkages between the microeconomics of farm units and the dynamics of household well-being, considering efficient water resource management; incentives to the private sector to invest in agricultural production and marketing; and new agricultural research on advanced technologies, local plant varieties, in addition to the use of renewable energy. Climate change also has implications on the social aspects of the poor and vulnerable people, studies carried by different agencies stressed the need to improve food accessibility and reduce poverty which affects health of children and growth which eventually affect their ability to learn. Small scale production whether, plant or animal husbandry in rural areas is becoming one of the viable venue for fighting poverty and improving food availability.

To Jordan, energy is considered as a challenge and an opportunity. Jordan is a country with limited oil and natural gas resources. For a long time the country is importing petroleum and petroleum products. The country is currently undergoing a paradigm shift in terms of energy policy planning with vision for the development of renewable energy as a major contributor to the energy mix, the National Energy Strategy 2008-2020 identifies a target of 10% of renewable energy by the year 2020 comprising a ten-fold increase from the share of 1% in 2007. This transition will require capital investments, technology transfer and human resources development to produce a solid base to maintain and enhance this positive change.

Climate change is expected to have a detrimental impact upon human development and poverty in Jordan. This will occur by increasing the severity of resource scarcity, which in turn makes access to natural resources more difficult. The poor are expected to be the most vulnerable to the impacts of climate change as they possess the least assets and resources to adapt to its impacts. This proposal has been developed with focus on water and agriculture sectors in Jordan, as they are the most affected sectors by the climate change. Those Two main sectors have their adaptation measures. Based on that, the activities included in this proposal were designed to respond to the climate change. The priorities in those sectors includes activities concerning water quality, e.g. groundwater protection, Reuse of treated wastewater, Improvement of water quality, e.g. water treatment, Introduction of water saving technologies, desalination of brackish water and Reuse of treated wastewater, Rainwater harvesting. With regard to agriculture sector, Irrigation efficiency, e.g. through water saving technologies, Introduction of new crop varieties (cash crops). In addition to that, there are also an Institutional adaptation activities including capacity building and promotion of water saving through awareness campaigns to be covered through community empowerment component of this project proposal.

The community empowerment component is also meant to apply some activities related to water and agriculture sectors, in addition to capacity building and raising awareness for the local communities –especially the poor- to cope with the predicted climatic changes. The activities were designed in an integrated manner through participatory approach to maximize the impact in the targeted areas through applying full package of activities in cooperation with the targeted local communities. Surveys will be undertaken to ensure that the women's opinions are recorded and that project activities will be designed to involve women as specific target beneficiaries. To bridge the gender disparity and to alleviate women's vulnerabilities to climate change related risks, the project will ensure that information relating to project activities reach both men and women; target women in the communities, as well as women’s organizations; promote mechanisms for the active and full participation of women in adaptation activities and include women in relevant organizations.

PROJECT / PROGRAMME OBJECTIVES:

The main goal of the project is to increase resilience of the poor and vulnerable communities in Jordan to climate change related risks of water shortage, food insecurity, and energy–related issues through pilot activities and intervention to mainstream climate change considerations into these sectors.

- To build the capacities of local communities and institutions, increase their knowledge to manage climate change risks affecting their living standards and livelihoods.
- To enhance the food security of citizens with focus on poverty pockets, and the small-holder farmer sustainable food production.

- To improve water use efficiency and protect quality and quantity of scarce water resources in rural communities of Jordan, and to ensure community involvement and motivate public participation in water management issues.
- To reduce the country's emissions of GHGs and to enhance access to energy services in remote communities and adopting renewable energy sources.

PROJECT / PROGRAMME COMPONENTS AND FINANCING:

PROJECTS COMPONENTS	EXPECTED CONCRETE OUTPUTS	EXPECTED OUTCOMES	AMOUNTS (U.S. $)
1. Community empowerment and capacity building	- Public awareness campaigns for stakeholders (local community, decision makers, school children, and the public) to promote adaptation measures to reduce climate change impacts on food (land and water) productivity and control of desertification measures on the target areas developed. - Training materials on implementing adaptation measures developed. - Training and capacity building scheme for the local community and governmental partners to ensure sustainability and long term impact with special concentration on extension agents developed and adopted.	- Strengthened adaptive capacity for health protection, Agro-productive activities and food security to climate change under water scarcity conditions.	**2,645,000**

	- Communities' economic opportunities and income-generating activities initiated and sustained. - Community-led projects addressing climate change while improving energy access / use in targeted communities. - Adopting Solar Energy Systems and interventions to achieve a sustainable regional balance in living standards for targeted communities.	- Lower energy cost through shifting to the renewable energy sources as a major contributor to the energy mix in Jordan.	
2. Food security , new agricultural practices in Jordan towards poverty alleviation	- Enhanced production/technique with GHGs emission minimized. - Research adopted & developed towards adaptive crops, varieties and techniques. - Incentives for more efficient use of water in agricultural practices. - - - - - - - - - - - - - - - - - Income of local farmers, households & NGOs increased. - Local communities and NGOs ability to produce food is increased.	- Increased adaptive agricultural management practices, and new more adaptive crops and varieties to cope with climate change conditions. - Food secured communities with better livelihoods conditions in poverty pockets	**2,460,000**
3. Integrated water management, treatment, reuse of grey water and desalination of brackish water	- Local communities empowered and more aware to address water scarcity.	- Efficient and balanced water supply that meets the demands and cope with the	**4,000,000**

towards a sustainable water availability for vulnerable communities in Jordan	- Water conservation practices / water use efficiency enhanced. - - - - - - - - - - - - - - - - - Community – based knowledge on grey-water management issues is improved. - Best technologies, techniques and practices for grey-water treatment and re-use are in place. - - - - - - - - - - - - - - - - - Providing a non-conventional resource of water from brackish groundwater wells during the summer time for irrigation of citrus orchads. - Drilling and desalinizing brackish water wells from shallow aquifers	predicted water shortages in the future. - Local communities with maximum utilization of the treated grey-water, and increased share of the treated grey-water as an important source of water. - protecting Agricultural investments in Citrus Orchads from water shortage in the summer seasons. - imroving the living standards of the communities in the targeted areas.	
5. Project/Programme Execution Cost (4.0 %)			**364,200**
6. Total Project/ Programme Cost			**9,969,975**
7. Project Cycle Management Fee Charged By The Implementing Entity (5.5%)			**500,775**
AMMOUNT OF FINANCING REQUESTED			**9,969,975**

COMPONENT 1: COMMUNITY EMPOWERMENT AND CAPACITY BUILDING

The majority of the adverse effects of climate change are experienced by poor and low-income communities, who have much higher levels of vulnerability to environmental determinants of health, wealth and other factors, and much lower levels of capacity available for coping with environmental change. Poverty reduction in Jordan is one of the major priorities at the national level, so the government initiated many programs and projects to fight against poverty. the last “National household Expenditure and Income Survey conducted by Department of Statistics (DoS) in (2008) has shown an increase in the number of poverty pockets in Jordan, now there are 32 of such areas distributed all over the governorates. Many of Jordan’s poor people live in extremely difficult conditions. They have limited access to alternative sources of income, and they have limited opportunities to diversify their farming enterprises because of low rainfall, poor soil quality and the topography of the land that they cultivate. They lack collateral and cannot obtain loans needed for investment in farm activities that could lead to higher

incomes, and they do not own land and they are unwilling to make long-term investments on the land they cultivate as tenant farmers.

The most vulnerable groups include large rural households (with average family size of Eight members) headed by illiterate or poorly educated people, households headed by women, households with sick or elderly people, and households that do not own land or have very little land.

Rural households in Jordan rely heavily on climate sensitive resources such as local water supplies and agricultural land, and climate-sensitive activities such as arable farming and livestock husbandry. Climate change can reduce the availability of those local natural resources, limiting the options for rural households that depend on natural resources for consumption or trade. The viability of socioeconomic adaptation to climate change is determined by the strength of the economy, the quality and coverage of health services, and the integrity of the environment. Societies with relatively greater economic resources and robust adaptive mechanisms suffer less severely from the unexpected impacts of climate change.

Improvements in access to basic health care, clean drinking water, and sanitation facilities will increase the population's resilience to climate change and reduce the impact of disease vectors spreading into new areas. As mentioned earlier, poverty will be exacerbated by the adverse impacts of climate change. One of the most significant causes of poverty are high unemployment and low wages in rural areas, especially during drought seasons, that are more likely to occur due to the climate change.

The main goal of this component is to empower communities, inclusive of the more vulnerable, to participate in reducing the effect of climate change on their live, creating their own economic opportunities and improving the quality of their lives. This component focuses on strengthening the institutional and technical capacity of both: communities and key stakeholders.

It also aims to promote awareness and knowledge at the community level on climate change, food insecurity related risks, and to increase adaptive capacity to reduce those risks at the community level, especially those of highly food insecure communities to respond to the impacts of climate change.

In addition, the component aims to help the targeted poor communities in reducing their energy bills by at least 25 US$/Month/family, through introduction of an innovative technology that provides clean, cheap, renewable, and limitless energy.
The main reasoning and objective for inclusion of such activities was to lower the household cost of energy. as energy bill constitute a major part of the family expenses, making those families economically vulnerable with ability to fall under poverty line due to minimum rise in the traditional energy prices. Based on that, this component was to apply some of the activities that will help raising the awareness of the vulnerable communities in coping with economic shocks by lowering their energy cost, and by adopting more efficient and renewable sources of energy.

Proposed Action:

1.1: Awareness and capacity building.

The targeted communities will be trained on climate change threats and adaptation measures to reduce vulnerability, in particular related to food insecurity; they will also participate in adaptation and risk reduction awareness activities. In addition, food security and gender considerations will be integrated in all adaptation training programs, with promotion of the project concept and community development approach to local communities.

This includes mobilizing the target groups in the community and building their capacities to participate in local development process, through formulating local committees that represent the communities, then training these committees and building their capacities.

1.2 Developing adaptation activities and measures in the targeted communities

The following suggested practice examples of activities and measures that can be implemented (or are in the state of planning) to address the main impacts of climate change on vulnerable communities in Jordan.

- Conduct a socio-economic survey and analysis of the targeted areas, in order to identify the poorest groups and communities within the targeted area and the effect of climate change on their lives.

- Implementing the participatory planning approach and identifying the proposed activities and projects that will be implemented within the communities through ensuring the participation of: the local community, the government sector, the private sector and the concerned local authorities (development units in the municipalities and governorates).

- Design, implement and operate the projects and other development activities in accordance with the approved technical specifications and best development practices in this area, all projects and activities should be subject to ministry approval prior its implementation.

- Provide financial support to local authorities in order to implement the proposed projects.

- Establish micro credit funds at local communities to encourage individual to establish their own projects and creating more job opportunities within the targeted communities.

- Assess the impact of implemented interventions in improving economic and living conditions of the targeted communities.

PROJECT COMPONENT: Community Empowerment And Capacity Building		
Expected concrete outputs	**Activities**	**Cost ($)**
- Public awareness campaigns for stakeholders (local community, decision makers, school children, and the public) to promote adaptation measures to reduce climate change impacts on food (land and water) productivity and control of desertification measures on the target areas developed. - Training materials on implementing adaptation measures developed. - Training and capacity building scheme for the local community and governmental partners to ensure sustainability and long term impact with special concentration on extension agents developed and adopted.	- Conducting stakeholders meeting. - Conducting technical workshops with local communities and farmers. - Prepare the programme action plan. - Conduct the activities according to the time frame determined - Conducting national and regional seminars and conferences.	300,000
- Communities' economic opportunities and income-generating activities initiated and sustained.	- socio-economic survey and analysis of the targeted areas - Implementing the participatory planning approach and identifying the proposed activities and projects to be implemented in cooperation with the communities in the targeted areas. - Design, implement and operate the projects and other development activities in accordance with the approved technical specifications and best development practices in this area.	1,700,000

- Community-led projects addressing climate change while improving energy access / use in targeted communities.	- Developing an action plan for adopting solar systems technology to secure part of the energy needs, and renewable energy financing mechanisms, with private sector involvement for technical capacity building and support.	30,000
- Adopting Solar Energy Systems and interventions to achieve a sustainable regional balance in living standards for targeted communities.	- Installing Solar Thermal Energy systems for Heating Water in 300 houses of targeted communities.	390,000
	- Piloting the use of 300 Solar Photovoltaic Panels in houses to reduce energy bills.	225,000
Total costs of the proposed activities		**2,645,000 U.S. $**

COMPONENT 2: FOOD SECURITY AND NEW AGRICULTURAL PRACTICES IN JORDAN TOWARDS POVERTY ALLEVIATION

The Government of Jordan has been approaching food security largely through three sectoral entry points:

1. Social protection initiatives: e.g., increases in distribution of cash, food or vitamin supplements to vulnerable people.
2. Short-term responses to economic events: e.g., removal of taxes and tariffs on essential commodities; removal of interest from agricultural loans; subsidizing some food items and removal of subsidies on some others; and
3. Longer-term Poverty alleviation interventions: e.g., policy support and project-based actions for increasing agriculture; income generation projects, particularly for agro-industry; capacity building, job re-training and provision of credit.

This component is meant to achieve the following main objectives:

1. New farm management practices and adoption of new varieties, crops and animal breeds more appropriate to future climate conditions.
2. To enhance the availability of Small-holder farmer sustainable food production, and to enhance the livelihoods for the poor and food insecure.

The major cereals consumed in Jordan are wheat, maize and barley, the last being used as fodder. Jordan is self-sufficient in vegetables, poultry, eggs and fruits and 50% of milk and dairy, however it relies mostly on imports of wheat, cereals and fodder. There is no domestic production of some other items like oil seeds and rice. The natural consequence of this situation is that Jordan is a net food importing country, with large (in both volume and value terms) amounts of cereal imports.

A Regional Report on food security in Arab Countries indicated that despite that global food prices have dropped recently after the 2008 hikes, fluctuation and unpredictability of prices still pose a risk to Arab Countries including Jordan, due to the high reliance on international food markets and the structural internal factors that impact food security. The increasing global demand for food, slowness of global growth rates of yields of major cereals, the inelasticity of the food market, the thinness of international food markets as well as the impact of climate change on agriculture are all factors that contribute to potential global food shocks. Internally, for Arab countries, supply and demand factors play a role in food availability due to the limited amount of arable land and water, constraints in expansion of arable land and in sustainable increase of water use, low cereal production, increasing population, income growth and urbanization. Furthermore, according to the report, there are two kinds of risks related to food security: price risks and quantity risks. The level of vulnerability is determined by the level of dependence on cereal imports and fiscal balances. Since Jordan is a net importing country of cereal and has a weak fiscal balance, it is placed within the category of the most vulnerable countries to both quantity and prices risks respectively.

Agriculture has to adapt to significant impacts of climate change, while at the same time providing food for a growing population. Agriculture is one of the few sectors that can both contribute to mitigation and sequestration of carbon emissions and accounting for agriculture's carbon footprint is necessary, particularly if agriculture is included in greenhouse gas reduction commitments.
Jordan has a small percentage of agriculture as part of Gross Domestic Product (3%). Agriculture imports are almost three to one in respect to exports (imports: US$1.379 billion to exports: US$563 millions) in 2008.

Climate change is expected to alter the seasonal timing of rainfall and snow pack melt and result in a higher incidence and severity of floods and droughts. Both rain-fed and irrigated agriculture will need to be managed more sustainably to reduce resulting production risks. In addition to that, the suffering of the agricultural sector is aggravated by the increase in demand for water and depletion of available resources. In the year 2003, about 506 MCM of water was consumed for irrigated agriculture which comprised 62.5 percent of Jordan's total water consumption (DOS, 2003). Only 3 percent of the country's work force is skilled agricultural workers. The agricultural sector contributed 2.3 percent of GDP in the year 2004 (down from 8.5 percent in the year 1994). Therefore, agriculture is particularly vulnerable to climate change, and this component was designed with focus on the following sub-components:

2.1: New farm management practices and adoption of new varieties, crops and animal breeds more appropriate to future climate conditions.

Production systems in Jordan include mainly field crops, fruit trees, and vegetables cultivate under rain fed and irrigated conditions. Despite the maturing of public and private sectors in investments in land and other inputs, and efforts of international and regional organizations in introducing new seed varieties, Jordan is far from being field

crops self-sufficient. The self-sufficiency rate not exceeded 7% for field crops during the period (2000-2009).

Major field crops grown in Jordan include wheat, barley, lentil, better vetch, chickpeas, maize, tobacco, vetch, and sesame. Wheat dominate the production figures within this group with an average of (24,300 tons) followed by barley and broad beans. Barley, dominate the cultivated area with an average of 32,000 hectares. In Jordan, vegetable crops are grown all around the year. In the Jordan valley, there are two main planting seasons for vegetables, namely autumn and spring seasons. During spring, summer and fall the production is concentrated in the Highlands. Vegetable are cultivated using protected (mainly greenhouses) and in open field production systems. Non-conventional irrigation system (mainly drip), application of pesticides, chemical fertilizers, and high yielding varieties is dominated in both systems. The supply of domestically produced fresh vegetable is therefore continuous through the whole year. Tomatoes leading both area and production figures (10,000 hectares and 490,000 tons), followed by potatoes (4300 hectares and 128,000 tons) approximately.

The list of fruit trees grown in Jordan includes many subtropical and temperate zone fruits and few tropical fruit tree crops. Olives dominate both cultivated areas and production within this group (63200 hectares and 128000 tons), followed by citrus (7000 hectares and 122300 tons), and grapes (3530 hectares and 30022 tons).

The livestock sub-sector constitutes about 55-60% of the agricultural output, and provides a major source of income to 250,000 people engage in about 45000 livestock holdings. In relevant to investment size, poultry sector occupies the highest rank, followed by dairy cattle. The small ruminant sub-sector constitutes about 32% of the total livestock output and has a special importance due to its social significance, since about 48 percent of the rural communities depend on this sector for their livelihood, and that women assume a great role in the production activities through assisting in raising, feeding, milking and processing.

The programme will foster the application of existing technologies and invest in R&D for new technologies to reduce GHG emissions and increase productivity. Further it will facilitate adaptation by increasing producer resilience to climate change, and that compensate the most vulnerable groups. Major challenges to Jordanian agriculture are limited arable lands, fragmented and small-sized holdings, and high dependency of production on rainfall; limited water resources those are available for agricultural purposes and their low quality; frequent drought seasons as a result of low amounts and poor distribution of annual rainfall and increasing temperatures as a result of climate change; in-efficient marketing system; and in-efficient legislation as regards to the agricultural sector and their inability to be in harmony with the economic and social changes and with the agricultural development needs and requirements.

Research on adaptation of agriculture to climate change, development of drought tolerant high quality of food and feed crops, sustainable management and safe use of water resources including treated wastewater and grey water, rehabilitation of the

degraded vegetation in the Badia with the proper use of water harvesting techniques, and socioeconomic and policy related issues to enhance and improve the investment in agriculture and to conserve natural resources and protect the environment are the major priorities for Jordanian agriculture.

2.2: Biomass plants for sustainable development of arid lands: screening biomass plants for forage production

The overall objective of this activity is to exploit the local plant species and introducing new resources for sustainable rising of non-food, biomass crops as forages on marginal lands. This will assist in achieving the following specific objectives:

1. to determine the best crops for biomass headstock forage in different local climate and marginal land conditions. The plants will be selected from natively collected wild species and from introduced exotic species.
2. to define the best methods for growing each crop, maximizing their yields in reclaimed or saline marginal lands, including irrigation and fertilization methods, harvest protocol.
3. to recommend the most efficient way of forage use (direct grazing, silage, hay etc.) in relationship to the available local technology and the potential analysis of the crops.
4. to disseminate the resulting protocols for the optimization of forage sources in marginal lands to local farmers, agricultural extension workers, municipalities, and other shareholders, with a particular emphasis on policy-makers.

2.3: Sustainable livelihoods for the poor and food insecure are enhanced / improved.

The main objective is to increase the local farmers', rural women, households', local NGOs, and communities' ability to produce food and generate income. The proposal activities will be implementing in cooperation with the Ministry of Agriculture, and at the local level through national institutions such as National Center for Agricultural Research and Extension (NCARE) and other NGOs.

The expected results are: enhancing the capacity for households, farmers, and rural women to produce food, and increasing the production of food by small farmers, as well as increasing the return from farm product for rural households through adopting new technologies. and increased poor households' income, through agricultural related

activities.

PROJECT COMPONENT: Food Security and New Agriculture Practices		
Expected concrete outputs	**Activities**	**Cost ($)**
Enhanced production/technique with GHGs emission minimized	- Educating agricultural practitioners and farmers about the basic principles of productive, sustainable cropping system management. - Awareness and application/use of the appropriate fertilizers and farming practices. - Identify related activities that could be implemented at the households and community levels. - Providing grants for farmers and families to implement the identified activities.	750,000
Research adopted & developed towards adaptive crops, varieties and techniques.	Research activities on: - development of drought tolerant high quality of food and feed crops. - sustainable management and safe use of water resources including treated wastewater and grey water for agricultural purposes. - rehabilitation of the degraded vegetation in the Badia with the proper use of water harvesting techniques.	125,000
biomass plants for forage production	Research Activities - Survey, Collection and Conservation - Evaluation and Morphological Characterization - Cultivating Promising Species - Optimizing Growing Conditions - Dissemination Implementation activities - The results obtained from the previous research will be used in a clear protocol that will be disseminated and applied by local communities.	400,000
Income of local farmers,	Develop specific criteria to identify the targeted communities and households. - The criteria could include but not limited to: high poverty rates, climate change effect, size of land holding, agricultural diversity potential, and inadequacy of development activities, soil and rainfall conditions. - Define the targeted groups using the criteria. - Define the indicators to measure success. - Carry out an initial baseline indicator survey of the targeted areas.	40,000

households & NGOs increased.	Support the promoting of production type of activities - Identify possible production type of activities that could be implemented at the households and community levels. - Identify and document how these will be supported by the programme; the support may include a ‚package' made up of such supports as seeds, fertilizer, equipment, etc. - Identify the technical support that could be provided, such as the introduction of new production technologies and new crops. - Provide training on food processing, packaging and marketing and other income generating activities. - Implement identified production activities in the selected targeted communities. - Establish how to facilitating marketing and distribution of products produced.	400,000
Food secured communities with better livelihoods conditions in poverty pockets	Support the promoting of other type of activities to ensure households have income to purchase food i.e. accessibility to food - Identify possible accessibility type of activities that could be implemented at the households and community levels and suitable for their conditions. - Identify and document how these will be supported by the programme. - Identify the technical support that could be provided, such as the introduction of new technologies, techniques, and processes. - Implement identified accessibility activities in the selected communities. - Establish how to facilitate marketing and distribution of products produced, and provide off-farm food processing packing and marketing of farm products, at a scale which could be carried by NGOs or local community.	400,000
Communities in poverty pockets are more aware on the links between food and health.	Strengthening awareness of households on the links between food and health - Provide a series of supporting awareness activities on healthy behavior, environmental education, nutrition, gender roles, formulation of CBOs, etc. - Undertake activities to enhance awareness of locals regarding role of proposed activities and its impacts on their life, means of overcoming	125,000

	constraints, and sources for getting technical information. - Conduct an evaluation of the provided support at the end of the project including impact and lessons learnt. -	
Implementation of a compost factory	Consultative Phase: - Conduct a feasibility study to identify the area the most suitable for establishing the factory by looking into: the availability of the raw materials for production, the volumes of compost that could be produced, the costs of production and delivery to customers, etc. - Evaluate the interest of the local community and their readiness for employment.	1000
- The elimination of approx. 40 tons of farm waste daily. - The production of approx. 40 tons of compost per day.	Pilot Phase: 1. Installation of a compost factory in the project region. (On 10 dunums of suitable land).	44,000 for warehouses. 175,000 for machinery.
Total costs of the proposed activities		**2,460,000 U.S. $**

COMPONENT 3: INTEGRATED WATER MANAGEMENT, TREATMENT AND REUSE OF GREY AND BRACKISH WATER FOR A SUSTAINABLE WATER AVAILABILITY FOR VULNERABLE COMMUNITIES IN JORDAN.

3.1: Managing water demand, maximizing the utilization and minimizing waste of water to generate water savings as an important source of additional water to help bridge the gap between supply and demand

The country is facing a future of very limited water resources, among the lowest in the world on a per capita basis. Water scarcity is the single most important natural constraint to the country's economic growth and development. The annual per capita share of water for all uses is estimated at 160 cubic meters (m3) and is projected to decline to only 91 m3 by the year 2025 putting Jordan in the category of having an absolute water shortage.

The management of Jordan's scarce water resources is a serious challenge. The most viable short-term option available to the Government of Jordan is to manage its water demand. Behavior patterns of water users will need to be adjusted toward greater

water conservation practices and more efficient water use. For Jordan to meet the requirements imposed by a growing population and to meet its desired economic development objectives, it is imperative that optimal and sustainable patterns of water use be instituted at all levels.

This component of the project proposed is to be piloted in some governorates of Jordan, for example Al-Mafraq in the North and Maan in the South where 15 out of the 32 Poverty pockets are located. Agriculture forms a central element of the economy for Mafraq Governorate, especially in the western part of the province and its main water sources for irrigation is the Azraq groundwater basin which is heavily over-pumped, exceeding the safe yield by 215% mainly due to the agricultural sector, which constitutes more than 60% of the total demand of that basin. Major changes in the agricultural sector and the adaptation to less groundwater abstraction are inevitable and have to be prepared carefully in order to allow for a socially compatible transition from current agricultural activities to alternatives incomes opportunities for farmers and investors willing to leave agriculture.
Also in order to reduce the dependence on groundwater in the Highlands – Azraq basin, the potential for water reuse projects in the highlands needs to be explored by establishment of a decentralized wastewater treatment plant to the villages which are not provided with a sewage network.

The losses in the drinking water are still relatively high in Mafraq governorate around 60% of the total water supplied is lost, which impacts the liter per capita that reaches the households and public places, In addition to the indoor water losses in the homes which was estimated for Jordan of about 10-12%, and does not include any losses from the system or leakage from the roof tanks or any other losses above the point of entry to the home, this make it vital to implement water projects for different water saving and water use efficient ideas that will improve directly the provision of water service at the end user level or through indirect reduction of public health externalities.

The project's main target groups are the water end users (households, farmers, community, mosques, schools…etc.)
The project will also have specific objectives and benefits as follows:

- It will empower and enable communities in rural Jordan to address water scarcity by improving water use efficiency and water availability.
- It will allow providing reclaimed water for irrigation and thus reduce the demand on water for agriculture in the community. This will be achieved by establishing a proper sewage collection, treatment and reuse.
- It will Enhance the use of elements of the environment that otherwise go to waste (burned or dumped) by recycling them to a usable form, also Protection of groundwater resources from chemical pollutants that percolate to the deeper soil layers.
- It will provide employment opportunities for the local communities and improvement of their living conditions.
- It will raise awareness of water and environmental situation among the local society.

- It will decrease the abstraction from the Azraq basin and this is the long impact on groundwater resources.

3.2: Integrated Grey-water Management Policies & Technologies for Vulnerable Communities in Jordan

With increasing demand on the already stressed water resources, the need for rational utilization of these resources and protection of their quality is becoming more urgent than ever. While progress is expanding access to safe drinking water supplies has been impressive reaching over 96% of the population, some important challenges remain. A critical challenge for Jordan is how to address the severe shortage in water by including reclaimed water in water resources planning and management in an integrated way, especially for small, marginalized communities in which a centralized treatment system may be far too costly.

Expansion of modern sanitation systems to meet public health and environmental goals, and increase the reuse of valuable reclaimed water has lagged significantly behind the expansion of water supplies, especially in rural marginalized areas. This is mainly attributed to the present wastewater management policies adopted in the country, relying mainly on centralized systems comprising sewer systems and central treatment facilities, which hamper the extension of this service to small-rural communities. In view of this, only about 64% of the population are served with public sewerage systems, most of them are located in urban areas.

Demands for public water supplies had recently increased in small-rural communities. Accordingly, wastewater generation increased while little, if any, attention has been paid to improving sanitation levels and adopting organized plans for management of the resulting wastewater in such communities. The present predominant practices of utilizing on-site wastewater disposal systems (cesspools, pit latrines and others) fail to protect water resources and the environment because of the discretionary manner in which these systems have been designed, installed and managed. Appropriate decentralized wastewater management technologies for black water and/or grey water are now urgently needed for these communities. These technologies may include modification of existing systems, developing new and improved technologies, and issuing proper design and construction codes and specifications.

A recent study was conducted by the World Health Organization WHO on appropriate sanitation technologies in rural and peri-urban areas in some of the eastern Mediterranean countries (among these was Jordan). The study concluded that the most constraints that hinder the enhancement of sanitation levels and development of integrated schemes in this field for such areas are: the scarcity of water resources; non-decentralization of rural water supply and sanitation schemes at the community level; depending on inappropriate technologies; lack of community involvement and participation; lack of sufficient and trained personnel; lack of

environmental health awareness and inadequate national legislation for such schemes.

Interest in adopting innovative, non-conventional wastewater management strategies for small-remote unsewered communities in Jordan is rapidly increasing. This had been investigated within a coherent framework of procedures and activities, including integration of various components of technical, social, economic, environmental, institutional, educational and public participation requirements within 33 small communities scattered over an area of 25600 km2 in the North-eastern Badia of Jordan (Royal Scientific Society, 2003); The project was a first and essential phase for establishing these fundamental requirements. This proposed project will assess the feasibility of introducing the same framework, adopted in Royal Scientific Society (RSS) study (2003), to other small communities in the rural areas of Jordan.

In close collaboration with members of all project area communities (men and women alike), the project aims at:

1. Developing community-based know-how by facilitating dialogue over grey water management issues and by providing the opportunity of interaction of communities with already existing relevant activities in Jordan.
2. Identifying the technical, political, social and financial issues, problems and constraints currently facing grey water management in small communities.
3. Assessing impacts of current practices on the well-being of the communities and on the available water resources.
4. Working with the communities in identifying best techniques, technologies and practices for grey water treatment and reuse.
5. Testing and validating with the participation of the communities a selected system that is user friendly, cost effective, socially acceptable and technologically sound to ensure its sustainable application.
6. Using continuous multi-stakeholder dialogue to recommend policies and institutional frameworks for wastewater collection, treatment and reuse programs and strategies in rural communities, and to define the roles and responsibilities of all involved stakeholders.
7. Building the capacity of various involved stakeholders on different aspects of grey water treatment and reuse.
8. Disseminating the recommendations/ findings/ knowledge gained both nationally and regionally using a wide range of methods designed to target different audiences.

Economics will play an increasingly important role in future water allocation decisions. As a result, farmers in Jordan Valley and the highlands will soon find it difficult to justify their priority claim over water resources. Although irrigated agriculture is the largest user of water in Jordan, however, most of the available water resources for irrigation come from treated wastewater.

Therefore, the key challenges to irrigated agriculture are the improvement of water use efficiency and the alleviation of adverse environmental impacts resulting from the reuse of treated wastewater. On the other hand, rain-fed agriculture will face the challenge of climatic variability and change.

3.3: Desalination of Brackish Water

Due to the scarcity of water for agricultural purposes in Jordan Valley, the production is affected and farmers are prevented from producing enough amounts of citrus in the Northern Ghours. The project objective is to study, design and drill brackish wells in the northern parts of Jordan valley, so as to treat water of those wells to be used in irrigation especially in dry summer seasons.

PROJECT COMPONENT: Integrated water management, treatment, reuse of grey water and brackish water desalination for a sustainable water availability for vulnerable communities in Jordan		
Expected concrete outputs	**Activities**	**Cost ($)**
- Local communities empowered and more aware to address water scarcity. - Water conservation practices / water use efficiency enhanced.	Implementing water use efficiency projects at community level. Household level: 1. Water tanks replacement / installation and water network maintenance for 85 houses. 2. schools & Mosques: - Constructing water harvesting reservoirs (15 in total) in different capacities from 75 – 100 m3; - Water network maintenance with replacing the drinking taps and installing water saving devices (WSD) for about 40 schools and Mosques; 3- Awareness campaign for all projects	2000 / per household Total cost 170,000 - 6000 USD per water harvesting tank. Total cost 90,000 USD - 2000 USD per schools and Mosques; Total cost 80,000 USD - 50,000 USD

Improved quality of life in marginalized rural communities located in water scarce areas. Scarce water resources protected from pollution with important positive implications on human health. An increase in public awareness and community know-how in fields of grey water management. a set of recommendations for new grey water management policies and strategies for small-rural communities in Jordan will be provided	- Data and Information Collection, Analysis and Assessment - Communities Needs Assessment Workshop - Identification of targeted Communities, and getting the Public Involvement - Identification of Grey water Quality and Quantity, and Selection of Appropriate System - Field –Pilot Experiments - Training Activities - Assessment of Selected System on Water Use Efficiency	380,000
Community – based knowledge on grey-water management issues is improved. Best technologies, techniques and practices for grey-water treatment and re-use are in place.	Ensuring community involvement from the very beginning in the selection, design, construction and maintenance of a grey-water treatment and reuse system. Constructing grey water systems in 40 schools and mosques;	- 2000 USD per grey water system for 1m^3 influent to be treated. Total cost 80,000 USD
Implementation of a decentralized wastewater treatment plant	Feasibility Study: 1. Economic and technical feasibility study for the establishment of a decentralized wastewater treatment plant (costs, O&M energy, labour, etc.), including an assessment of the water reuse potential in the Azraq Basin: How much wastewater can be treated for	- 50,000 USD cost of the feasibility study

	reuse? 2. Investigation of water quality and control requirements necessary to safeguard health and environment and to achieve acceptability in using recycled water to irrigate high value crops, including crops for export. 3. Assessment of user and public acceptance 4. Environmental Impact Assessment	
Pilot phase: 1. Identification of potential reuse sites. 2. Implementation of a decentralized wastewater treatment plant in the project region.	- The production of approx. 2 Million Cubic Meter of treated wastewater annually.	- For 4000 inhabitants. - 600,000 USD for Collection system - 1,000,000 USD for the decentralized treatment plant
Drilling and desalinizing brackish water wells from shallow aquifers	- Providing a non-conventional resource of water from brackish groundwater wells during summer time - Protecting agricultural investments in Citrus Orchads from shortage of water	- 1,500,000
Total costs of the proposed activities		**4,000,000 U.S. $**

INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

The proposed project emphasizes major goals of the Economic and Social Productivity Programs Unit (ESPP) of the Ministry of Planning and International Cooperation (MOPIC) to enhance the productivity of poor people and improve living standards of local communities and residences through pilot activities and interventions. ESPP has the accessibility to the most vulnerable people through 32 poverty pockets that updated recently and design programs to alleviate poverty in such regions.

ESPP annual budget exceeds US$ 20 million. The proposed project is relevant to ESPP programs including the Enhanced Productivity Centers (EPC) program, Community Empowerment Program in Poverty Pockets, Small and Micro-finance Program, and Direct Interventions. Government of Jordan will allocate US$ 100 million during the implementation period of the proposed project (five years).

Co-financing will be provided by the Government and parallel projects for a total amount of US$100 million through the ESPP contribution which will include allocation of US$ 100 million during the implementation period of the proposed project for the forthcoming five years. ESPP is guided by a Steering Committee (SC), chaired by H.E Prime Minister and includes Ministers of relevant entities and Private Sector. The SC of the ESPP set the general policy of ESPP, provides strategic guidance and oversight for the unit, advice on corrective measures, provide conflict resolution. So, ESPP has the necessary autonomously for optimal coordination, management and sustainability of its programs.

Moreover, ESPP meets the criteria necessary to house the proposed Project Management Unit (PMU). The Government's commitment to ESPP, the flexibility and the accountability of ESPP are highly valuable essentials for project implementation. For the project to be successful, it is crucial that the PMU is able to operate in a flexible and transparent manner, as well as to attract competitively recruited eminent staff with project management experience and ToRs acceptable to the donor. At each phase of project implementation, the performance of the PMU within ESPP will be closely monitored, and ESPP will establish the PMU and process essential procurement contracts prior to project effectiveness.

A Project Management Unit (PMU) will be established to coordinate the activities of all implementing agencies. The PMU will be guided by a Steering Committee, to be chaired by the Secretary General of the MOPIC. A Technical Committee, chaired by the Project Manager whose mandate will be to provide technical guidance in implementation and M&E activities. The composition of these committees is detailed below.

The project components and activities will be implemented by Ministry of Agriculture (MoA), Ministry of Environment (MoENV), Ministry of Water and Irrigation (MWI), National Center for Agricultural Research and Extension (NCARE), National Center for Research and Development (NCRD), and Royal Scientific Society (RSS), Jordan Environment Society (JES), The Royal Society for the Conservation of Nature (RSCN), Jordan Valley Authority (JVA)

Project components will be implemented as follows:

- Component 1 will be implemented by MoA, MoENV, MWI, NCARE, NCRD, RSS, RSCN , JES and NGOs
- Component 2 will be implemented by MoA and NCARE.
- Component 3 will be implemented by MWI, RSS, MoENV, JVA and NGOs

The PMU, housed in the Economic and Social Productivity Programs Unit (ESPP) at the Ministry of Planning and International Cooperation (MOPIC), will have a crucial coordinating role in linking the key players. It will comprise a Project Manager; Monitoring and Evaluation (M&E), Training, procurement and Financial Management Specialists; and Administrative Assistant.

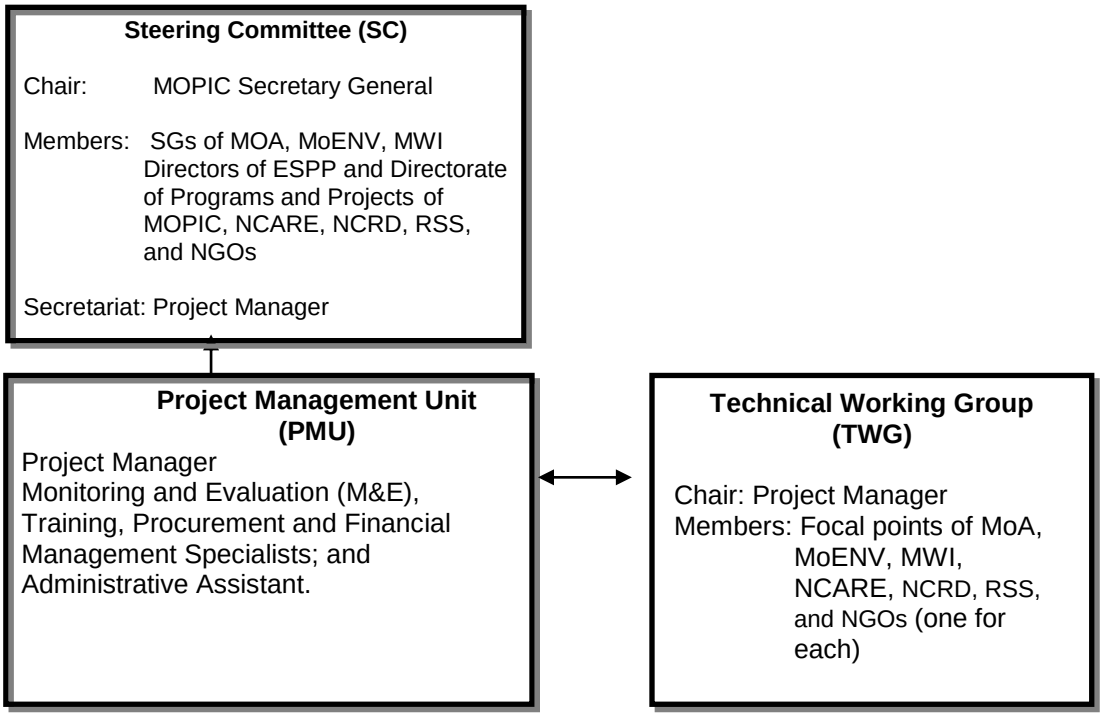
The PMU will coordinate the project activities of the implementation entities including MoA, MoENV, MWI, NCARE, NCRD and RSS. It will coordinate the preparation of annual work plans and budgets; ensure collaboration between stakeholders and conduct M&E. Local and international experts will be hired as consultants with expertise in relevant fields. The PMU will be tasked to ensure liaison, communication, collaboration and joint problem-solving between entities; ensure timely external auditing of project accounts; ensure appropriateness of procurement and FM activities as per agreed terms; and act as the secretariat of the SC and chair the project's Technical Working Group (TWG).

Steering Committee (SC): The PMU will be guided by a SC, chaired by the Secretary General of MOPIC. Based on consolidated implementation progress reports submitted semi-annually by the PMU and periodical field visits, the SC will provide strategic guidance and oversight for the project (including on procurement, financial management, disbursement, M&E and reporting matters), advise on corrective measures, provide conflict resolution, and be responsible for approving annual work plans and associated budgets submitted by the PMU. The SC will include the secretary generals of MoA, MoENV, MWI, and the directors of ESPP and Directorate of Programs and Projects of MOPIC, NCARE, NCRD and RSS.

Technical Working Group (TWG): the Project Manager will chair the Technical Working Group with focal points from MoA, MoENV, MWI, NCARE, NCRD and RSS.

The TWG will discuss technical issues, enable information exchange between project activities, provide technical advice and guidance on various aspects of project implementation, and may also make recommendations to be discussed at the SC. It is crucial for project success that the PMU operate in a flexible, transparent and collaborative manner with all concerned parties. To this end, the TWG will be a key mechanism. The TWG will meet on a quarterly basis, or more often if required.

Figure 1: Project institutional structure



MONITORING AND EVALUATION

During the life of the program, the management will implement M&E system in order to review the program and its outcomes through in house evaluations and impact assessments in order to maximize the benefit from the program resources; to implement programs with the objectives and specific outputs and measurable with a greater impact on beneficiaries, institutionalize the system of follow-up and evaluation and impact measurement as an integral part of the ESPP Unit functions through the following:

1. A reliable system of monitoring and evaluation and be considered an integral part of funding the cycle of projects.
2. Building the capacity of projects coordinators in follow up and evaluation mechanisms to measure impact in the preparation of the logical framework of projects.
3. Building the capacity of M&E staff to monitor and evaluate the follow-up mechanisms and evaluation of projects to ensure the inclusion of indicators as an integral part of the financing agreements, in addition to:
    a. Choose the appropriate methodology in the assessment of components of the program (participatory, quantitative, and qualitative).
    b. Development of indicators of the follow-up and evaluation of program performance measure its impact.
    c. Carry out field visits to work sites each of the components of the program to determine its performance.
    d. Cooperation with all relevant agencies to evaluate the program, and especially the Program Management Unit, and the beneficiaries of its services.
    e. A special regime for the collection of information and verification, analysis and reporting results to relevant parties.
    f. Ensure the participation of all parties in the evaluation process, particular target groups of the program.
    g. Provide the results of the evaluation for project management unit, and identify weaknesses to overcome, and areas of strength to promote it.
    h. Work to build relationships of cooperation and understanding with those working in the same area in government institutions, international institutions, and non-governmental organizations.

The supposed M & E system should asses the program as follow:

1. Evaluation at the level of performance and effort in the implementation process:

At this level, performance is assessed and effort in implementation of components of the program through the implementing agencies accompanied with the assessment of the implementation process at this level, measured by the extent of their impact on target groups of citizens, and by observing the participation and interaction in the implementation process and its representative. The belief of the program that one of the main outputs of the process of implementation of the program, in addition to projects

and physical outputs is the impact caused by this process to change the mind-set and behavioural patterns among the citizens by building their capacities and expand their knowledge, to become more in tune with the concept of the development process .The unit developed two sets of indicators and evaluation criteria at this level; The first relating to the assessment methodology adopted by the actors in the implementation of program components And the second on the evaluation of the impact of the methodology and the implementation mechanism for citizens of the target groups.

2. Evaluation at the level of output:

At this level, projects are evaluated and output in terms of their compatibility with the output contained within the program's objectives, as set forth in the agreements signed with implementing agencies. At the time, which is based on the evaluation process at this level to the quantitative indicators in terms of the number of outputs and the time it took to complete, It is also based on an assessment of these outputs a qualitative assessment in terms of quality and how to achieve the desired goals And here we cannot achieve the separation between the physical and quantitative targets for the different components of the program on one side and harmony with the spirit and message of the program and its components from the other side. Functioning in the process of monitoring and evaluation at this level, programs to develop indicators for assessing the quality of outputs and projects, in terms of compatibility with the concept of components and the message of the program, and the other on the evaluation of the achievement of quantitative targets in the required program components.

3. Evaluation at the level of the program's impact on the citizens:

The appraisal is done at this level at a late stage after the completion of the implementation of the components and of the program as a whole, and the appearance of output into existence. Where the evaluation will be at this stage on two tracks; first relates to assessing the impact of program components - separately - to citizens, and measure their awareness and understanding of the philosophy and objectives, and its impact on their awareness of the importance of their role in the development process. The second track relates to the evaluation of the program's impact on the citizens as a whole, and measure to achieve its mission and objectives.

PROJECTED CALENDAR

MILESTONES	EXPECTED DATES
Start of the project/ programme implementation	Jan 1st, 2013
Mid-term Review (if planned)	Jun 31st,2015
Project / Programme Closing	Jan 1st, 2018
Terminal Evaluation	June 1st, 2019

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

Water resources in Jordan are scarce. Coupled with the rapid population growth, the impacts of climate change will further exacerbate the problem. Temperatures will increase and the total annual precipitation is likely to decrease,

Jordan's Second National Communication suggests that the rising temperatures will lead to a decrease in surface runoff at least in the two river basins Zarqa and Yarmouk. If the temperature rises by 2°C, even an increase in precipitation by 20% would not compensate the increase in evaporation resulting in a decrease of surface runoff.

Given that situation, it is likely that climate change will lead to even more water scarcity in Jordan. Moreover, more intense precipitation is likely to affect the country. In detail, the following impacts are likely:

- Increasing water demand caused by warmer climate
- Reduction of water quantity in reservoirs
- Decreasing groundwater tables
- Deterioration of water quality caused by increasing water scarcity
- Conflicts among user groups (agriculture vs. domestic supply, industry, tourism)
- Damages through intense precipitation

The agricultural sector is particularly threatened by climate change and its impacts, since it is the largest water user in Jordan. Climate change does not change the challenges in Jordan, which are mainly related to water scarcity. Instead, it is another factor contributing to aggravate the existing shortage, adding to the rapid population growth.

In light of the above predicted impacts, the poor are likely to be the most affected group by climate change, as their capacity to respond to climate change is among the lowest in Jordan. It seems clear that vulnerability to climate change is closely related to poverty, and based on that, this proposal has been developed to help this group of poor and vulnerable adapting to the adverse impacts of climate change.

The adaptive activities suggested through this project to cope with climate changes were designed to achieve the outcomes identified by the project stakeholders. The overall goal aims to secure reliable sources of water supply in spite of potential pressure due to climate change through adopting water resource management plans that ensure

more water supplies to health, agriculture and food production leading to food security of the targeted communities. It also focuses on adopting suitable mechanisms for adaptation to climate change in food production and health, keeping in mind the shift towards new resources of renewable energy. The project objectives will address the root causes of water scarcity through sustaining access to water supply and strengthen adaptive capacity of food production and health sectors to climate change. To achieve that, the project will adopt the participatory approach in implementing the different project activities. The public awareness campaigns and outreach will be conducted to promote the project concepts, generate knowledge and capture lessons learnt from the implementation of different activities, with an extensive training and capacity building scheme for the local community and governmental partners to ensure sustainability and long term impact. It also aims to develop a policy and legal frameworks to support the implementation and institutionalization of the adaptation strategies.

It is inevitable that Jordan will experience drought on an ongoing basis. The big question is when and how severe the next one will be. One way to lessen the severity of a drought's effect on local communities is to prepare in advance for this event by creating a community that operates at a high level of efficiency in using water and on the other hand search for alternatives to decrease the demand on freshwater resources especially in the agriculture sector such as using the treated wastewater as a resource for irrigation.

Increase water use efficiency at the community levels through water demand improvement projects that draw on traditional or low-tech technologies, Increase income for socially and economically vulnerable households, especially female headed households, through a variety of strategies including the reduction of household water costs through water saving approaches.

This project contributes to the implementation of the national water demand management policy which was officially approved by the Cabinet of Ministers in 2008. The activities proposed in the project region are stated in the following provisions under this policy: on water supply augmentation using rainwater harvesting, Grey water and on-site treated wastewater, on reuse of treated wastewater, on education and public awareness, on water demand management programs, and on water efficiency assistance for low income consumers

The community-managed grey water management concept for small-rural communities is increasingly gaining interest in Jordan over the conventional centralized concepts. This is mainly attributed to the high costs entailed with the latter system. Conventional systems are especially costly when provided to sparsely populate small clusters and communities. For example, a planned centralized system for 41 communities in Jordan valley will cost US$ 2061 per connection in capital cost with expected household contribution of US$ 605 in connection and application fees. This fee is quite high considering that more than 50% of the households in the targeted communities earn less than US$ 182 per month. Beside cost-effectiveness, community controlled grey water management offer several other advantages, they are appropriate for low-density small communities, and favorable to a better watershed management as the need to transfer of large quantities of wastewater from one watershed to another is eliminated.

Because they are designed, operated and maintained by the community, the community has a big stake to ensure success and sustainability of the system.

As domestic water use increases due to the general rise in the standards of living, wastewater generation rates increases accordingly. The currently used disposal systems fail to protect water resources and the environment because of their poor design and lack of management. Pit latrines and ventilated improved pit latrines are not designed to receive household wastewater other than excreta and squatting cleaning water and, accordingly, are inappropriate where in-house water is available. In areas where inhabitants use such facilities, grey water is either disposed in near-by channels where it flows to adjacent streams causing aesthetic and health risks and water resources contamination, or reused in some simple uncontrolled manners. As for areas where cesspools are adopted, it is unlikely that grey water is reused, since generated wastewater (black water and grey water) is simply drained to the cesspool.

The Ministry of Public Works and Housing specifies standards and regulations for proper construction of cesspools and septic tanks in urban areas. In general, these standards and regulations require updating because some important issues are not clarified (e.g., disposal of liquid from cesspools, de-sludging requirements and the required institutional supervision and follow-up). Such standards, however, are rarely enforced in rural areas, because of the undefined sanitation requirements as part of an established and organized institutional responsibilities as mentioned earlier. Instead, cesspools are built according to traditionally accepted methods. Homeowners normally hire private construction contractors to build unlined cesspools, which are normally installed to insure that wastewater seeps into the soil as much as possible in order to decrease the frequency of pump-outs which can prove relatively costly to most homeowners. This widespread practice has serious consequences on the quality of groundwater and springs.

A decentralized wastewater management system in Middle-Ghor, the Jordan Valley has been put into operation since mid-2003. The communities that are served are considered small, peri-urban. Inhabitants are served with public water supply and rely currently on cesspools to dispose generated domestic wastewater. Cesspools are frequently emptied using vacuum tankers, and the septage is disposed of in near-by dumping sites. Tankers collect wastewater generated at households and discharge it to the treatment facility. The operational cost is estimated at 60,000 Jordanian Dinar JD annually. At first, Ministry of Water and Irrigation afforded all costs entailed, but at later stages it is recovering operational costs from fees collected from the inhabitants.

The proposed project will aim at improving water use efficiency, contributing to Water Demand Management (WDM) and protecting scarce water resources in small rural communities, as well as ensuring community involvement and motivating public participation in water management issues.

The learning and knowledge management to capture and disseminate lessons learned is significant in improving the knowledge in grey water management of different stakeholders, and supporting them to develop innovative ideas. Policy makers who will be part of the steering committee of the project will become communicators for the project outputs, and a replication of grey water management model developed by the project.

Agriculture in Jordan is plagued with chemical inputs in the form of fertilizers, not to mention pesticides, herbicides, etc. All of these compounds reach the inner soil surfaces through rainfall or through irrigation water and pollute the groundwater and kill the soil micro-organisms. Organic compost has the advantage of converting elements of the environment that are already within reach into fertilizers that enrich the soil and do not harm the groundwater.

Establishing a factory to manufacture organic compost from farm waste in the rural agricultural areas is very important. It is considered an alternative income source for the rural community. On the medium- and long-terms, alternative income opportunities reduce the dependency of the rural economy on agriculture, which in turn relieves the demand of irrigated agriculture in these regions.

Establishing a decentralized treatment plant will contribute to protecting the groundwater resources from wastewater pollution by replacing the infiltrating cesspools into the soil by a sewage system. And it would be an alternative source of water for irrigated agriculture which will substitute the freshwater to be used for municipal purposes.

With the expected increase of the surface temperature, coupled with a projected decrease in precipitation, the change will further challenge agriculture and food production in Jordan, where currently only very small percentage of the land is cultivated. Most food crops will not grow under these conditions, leaving a great area of the land unused. The project suggests a potential use for at least part of this land and unconditional water (reclaimed and saline) as a source for forage production as a sustainable sources of feed using land and water unfit for food crop production.

Moreover, the horizontal expansion of agriculture to ''underutilized lands'' will lower CO2 emissions, thus mitigating climate change. Introducing both salt and drought-tolerant crops to currently uncultivated lands will provide local residents with additional income, while at the same time, reducing land degradation.

There are 22 treated wastewater plants in Jordan producing 86.5 MCM treated wastewater from which 93% is utilized for restricted and unrestricted agriculture after mixing with fresh water and for industrial purposes. Also, saline water and soils resources are not fully used and limited for certain robust crops. Moreover, Jordanian distaste for using reclaimed water for food crops from either religious or health perspectives makes forage crops a good alternative for the use of these resources.

Defining non-food crops with high biomass and perform well under saline and reclaimed water conditions will be a promising option for the production of forage sources. These supplements to income will help local populations adapt more easily to increasingly harsh climatic conditions.

Both unexploited native wild plants (as Panicum turgidly, Lasiurus scindicu) and introduced species from other countries (as sugarcane, cassava …) will be considered in the bio-mass plants research. As productivity is measured mainly by the quantity of biomass produced, "fast growing plants" that needs less irrigation will be selected that can be grown in conditions do not allow food crops to develop.

The protocols produced through this research can be applied in arid lands throughout the region and will allow for identifying aspects of the production process forages as an important direction for future sustainable development of poor communities.

B. Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities.

The programme is expected to have a positive social impact with the important objective of increasing the resilience of the poor and vulnerable communities to climate change related risks of water shortage and agricultural related issues. Participatory approaches will be part of the project's implementation process in order to ensure that local communities' concerns are addressed effectively. Focus will be placed on the building capacity in participatory and gender-sensitive approaches. As the knowledge of poor people to manage climate change risks affecting their livelihoods, and their food security enhanced, water use efficiency improved, the program will benefit the target population.

The programme components will address social issues as an integrated concern. Large areas of the range and agricultural lands is expected to deteriorate because of climate change risks with adverse national, regional and global consequences for biodiversity, carbon sequestration and the quality and quantity of water flow. The programme will increase adaptive agricultural management practices, and new more adaptive crops and varieties to adapt with climate change conditions. Efficient and balanced water supply that meets the demands and cope with the predicted water shortages in the future; Integrated water management, treatment and reuse of grey water towards sustainable water availability for vulnerable communities in Jordan; will be promoted.

Economic benefits imply that improved and integrated agricultural and water management practices, introduction of new varieties, is therefore, crucial in improving livelihoods of the rural poor in target areas. Eventually, significant opportunities exist to address risks by the poorest rural communities located in the poverty pockets and improve their livelihoods and preparedness for climate change.

The benefits of the proposed project will be significant, mainly on the economic and social dimensions of the targeted groups and to the most vulnerable communities, in addition to the environmental aspect through increasing the resilience of the targeted poor communities to the climate change impacts. It will improve their livelihood through improving their income and living standards, especially for women and children. The programme is focusing on introduction of new more adaptive crops and varieties to cope with climate change conditions; Efficient and balanced water supply that meets the demands and cope with the predicted water shortages in the future.

The community empowerment activities are meant to create new sources of income for the targeted group by starting income-generating activities and upgrading the ones in place. This will help providing hundreds of jobs, and it will also pilot introducing an innovative technology that provides higher production, sufficient water resources, and clean, cheap, renewable, and limitless energy that will also help saving costs by reducing the energy bills for the poor in the targeted communities.

Water and agriculture related activities will improve the agriculture production, and reduce greenhouse gases emitted.

From environmental point of view, large areas of the rangelands are deteriorating because of drought conditions and over-harvesting that has contributed to reducing biodiversity. This is compounded by an increase in wind and water erosion, as a result of non-sustainable practices, leading to a decline in the carrying capacity of the land. Environmental benefits are mainly expressed in increasing the efficiency of re-use of waste and grey water, in addition to reducing the degradation of the green land cover. It will also improve the public health especially for women and children.

The project will target four governorates including 20 major poverty pocket areas (out of total 32) that have been identified as poverty pockets based on household expenditure and income survey, Department of Statistics (DOS) in 2008. Mostly those are remote and rural areas, and the communities there depend on agriculture as their main source and style for living. In Northeast of Jordan, Mafraq governorate includes 11 poverty pockets. In Southern part, there are 4 pockets in Ma'an, while there are 2 pockets identified in Balqa governorate (Middle). In far Southern part of Jordan, Aqaba governorate includes 3 pockets.

Target Groups: The main target group is resource-poor individuals including farmers and livestock producers in poverty pockets who most vulnerable to climate change and who have limited income or skills diversification and limited access to information and technological developments to adapt to climate changes. National entities will play a key role in the implementation process. Relevant policy makers will be targeted for the amalgamation of climate change adaptation data into national policies.

Target Areas: Geographically, the project will select its target area among the poorest communities in the poverty pockets areas. The governorates of Mafraq, Ma'an, Balqa and Aqaba will be the targeted by this project.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme.

Agriculture is the economic base for comprehensive development in rural areas through providing job opportunities and incomes for rural people to prevent them to migrate toward cities. The per capita share of renewable water resources is less than 150 CM/person/year. Agriculture ranks first in total water use with 65%, followed by domestic purposes (31%), and industrial uses (4%).

Rural population of Jordan constitute about one-fourth of total population. They generate their income mainly from agriculture. Rural inhabitants are the most vulnerable people to anticipated impacts of climate change risks including loss of food security especially in poverty pockets, increase government subsidy, adverse impacts to water use efficiency and public participation in water management issues, and increase energy bill to the burden of local community.

The project and its proposed activities were developed based on their necessity to the locals, their compliance with national priorities, and their cost. Water related activities have their impacts both on the water and agriculture sectors, in addition to reducing the risks of climate change on vulnerable groups and their sources of income, leading to significant impacts on the livelihoods and living standards of the targeted communities and areas.

D. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications.

This proposal relies on Jordan’s second national communication to the United Nation’s Framework Convention on Climate Change (2009). It also considers Jordan’s concerned national strategies and policies including water, agriculture, environment , socio-economic development plans and many others.

The Ministry of Water and Irrigation in 1997 developed Jordan’s Water Strategy including Water Utility Policy; Irrigation Water Policy; Wastewater Management Policy; and Groundwater Management Policy. In 2006 the Irrigation Equipment and System Design Policy and Irrigation Water Allocation and Use Policy were drafted. More specifically, in the demand management area, the Water Strategy cites the following: Achievement of the “highest possible efficiency” in water conveyance, distribution and use; Adoption of measures to “maximize the net benefit from the use of a unit flow of water”; Definition and assignment of roles in water conservation to be played by the different sectors of society; and Promotion of systems and devices for water saving and water reuse. In 2009, Jordan's Water Strategy (2008-2022) articulated Jordan's vision for a water strategy is one whereby 2022, Jordan has Adequate, safe and secure

drinking water supply ; Greater understanding and more effective management of groundwater and surface water; Healthy aquatic ecosystems; A sustainable use of water resources, and implemented fair, affordable and cost -reflective water charges; and Adaptation to increased population growth and economic development across the water sector and water users. Goals for Irrigation Water by 2022 is that annual water allocation for irrigation in the Jordan Valley will be reduced to 661 MCM in 2022 (293 MCM in 2007) and in the Highlands reduced to 191 MCM in 2022 (304 MCM in 2007).

Regarding the water sector, The Ministry of Water and Irrigation, in cooperation with the GIZ “Management of Water Resources” programme, established the Highland Water Forum (HWF) to address groundwater over-abstraction in the Jordanian Highlands. The Highland Water Forum was established as a platform for discussion and information and not as a decision-making or fund-allocating body. In other words, it represents an open “market place” of ideas and projects where all important players can meet each other and nobody is excluded on the basis of strategic choices. In January 2010, the Highland Water Forum was mandated by the Jordanian Prime Ministry with the ultimate task of supporting the Ministry of Water and Irrigation in developing an Action Plan for sustainable management of the Highlands groundwater basins.

The Core Group has met nine times in working consultations throughout 2010, 2011 and 2012. The 10th meeting is planned in mid-November 2012. The working group consists of 60 stakeholders (otherwise referred to as the Core Group) from the agricultural water users, government institutions and NGOs and research institutions.

The HWF consultations contribute to the elaboration of the groundwater management Action Plan through recommendations collected from the stakeholders during dialogue consultations. Deriving from these recommendations, concrete measures are defined and in turn feed into the aforementioned Action Plan. The forum consultations minutes are documented. The proposed project is benefiting from this consultation process. For example, the proposition of a compost factory was among the results the meeting during which the Alternative Income-generative Activities were discussed, and is documented in the 9th forum minutes of meeting.

However, the proposed Project aims to improve water use efficiency and protect quality and quantity of scarce water resources in rural communities of Jordan, has major relevance for the water strategies.

The Ministry of Municipal and Rural Affairs in collaboration with the World Conservation Union(IUCN) drafted the National Environment Strategy for Jordan in 1991 which is intended to be more than a set of guidelines and principles. Planners can draw upon this strategy as a resource book of information to prepare programmes and projects for implementation.

Jordan has been trying to apply Poverty Reduction Strategy (PRS), as a tool to assist proper implementation of poverty alleviation in the country. Since late 1990's the Strategy was initiated, financed and backed technically and financially by USAID. A new department for poverty alleviation was setup and housed in the Ministry of Social Development, then it was named Jordan Poverty Alleviation Program (JPAP). Poverty

and unemployment remain key development challenges in the country. Poverty stands at 13.3% and there are 32 registered pockets of poverty in different areas of the country. Furthermore, with the potential impact of the global economic crisis, there is a risk that the unemployment rate, estimated at 12.2%, may increase. UNDP advocates for poverty reduction and promotion of human development through nationally-owned sound solutions and sponsors innovative projects to address these challenges. We connect Jordan to global good practices and resources and work with a broad range of partners to help the country achieve its Millennium Development Goals (MDGs).The Agricultural Policy Charter prepared in 1995 and constituted an integral part of overall policy for the development of the Jordanian society and economy, recognizing the interdependence and yet polarity of rural and urban development. The Policy Charter aims to achieve efficiency, sustainability and equity. Although the Government prepared the policy charter in 1996, the local and rural community who are the productive society for agriculture not involved neither in preparation nor in implementation.

Agricultural development strategies were included in the economic and social planning since the 1950s, where the 10-year program was drafted. Four consequent economic and social development plans prepared and implemented by the Ministry of Planning and International Cooperation in collaboration with relevant ministries and covering the periods (1986-1990), (1993-1997), (1999-2003), and (2004-2006). These plans were drafted as a tool for a new developmental strategy, and designated a major role for the private sector, and confined the role of the government mostly to infrastructure-related projects that are essential for stimulating private investment (Ministry of Planning and International Cooperation, 1986-2004).

Furthermore, agricultural policies and strategies were developed for desertification control, rangeland rehabilitation, agricultural sector development and bio-diversity conservation. A special law for the protection of the environment was enacted (Law No.12 for 1995). In 2003 The National Strategy for Agricultural Development (NSAD) was drafted. The NSAD aims to attain economic, social, and environmental objectives.

Historically, agricultural policies in Jordan have emphasized import substitution for key food commodities, and have adopted a range of input and output subsidy, tariff protection, price control, credit, and other incentive measures to stimulate domestic food production. The government also intervened massively to control purchase, marketing, and processing of strategic commodities and farm inputs, as well as supporting consumers through pricing policies.

In light of the above, the proposed project is designed to respond to the main goals of the agriculture sector strategy and national plans in Jordan. The activities proposed is meant to realize and improve some of the sector indicators at the local level.

The National Rangeland Strategy for Jordan was prepared by the National Rangeland Strategy Committee in the Ministry of Agriculture in 2000. The strategy articulated that Jordan ranges suffered continuous deterioration due to elimination of its vegetative cover as a result to overgrazing and early grazing of range plants, ploughing of rangelands to prove property rights, uprooting of bushes for use as fuel wood, and

arbitrary movement of vehicles. Consequences of such activities were loss of productivity and accelerated desertification.

The project may assist in responding to the future challenges for agriculture of addressing climate change through ensures a stable policy environment that sends clear signals to consumers and producers about the costs and benefits of GHG mitigating/sequestering activities, provides a real or implicit price of carbon to create incentives for producers and consumers to invest in low-GHG products, technologies and processes.

E. Describe how the project / programme meets relevant national technical standards, where applicable.

the proposed project has been developed in light of the national plans and strategies of the targeted sectors. It will ensure compliance with national technical standards. The proposed activities will be implemented following the processes and regulations in place as needed, including the National EIAs, building codes, water and agriculture specific regulations… etc.

F. Describe if there is duplication of project / programme with other funding sources, if any.

The project was designed keeping in mind to avoid the duplication with other funding resources. However, it is also employing the lessons learnt and knowledge acquired through such activities and apply it in the new targeted areas.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

This proposal can be considered as a pilot phase that will build resilience to climate change risks for poor and vulnerable people, especially through opportunities to support and fund resilience building measures. This will build the capacities of the targeted communities and develop basic tools and information to ensure that climate risks are incorporated into the planning processes in the future. However, this project proposal does not stand alone in the field of adapting to climate change. The government of Jordan in cooperation with International organizations is also capturing the lessons learnt from other projects and initiatives in this field.

The expected project outputs are to be communicated in a systematic manner among the executing institutions and all intended target groups. Means of dissemination includes internet websites, media campaigns/programs and community outreach events (workshops, public meetings, conferences, ...etc).

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation.

The Economic and Social Productivity Program (ESPP) Unit in Ministry of Planning and International Cooperation is on a continuous interaction with localities, communities and NGOs of the targeted areas through the programmes/projects and initiatives implemented or being followed up by the unit. Within the feed-back process of those programmes and initiatives, the priorities and needs of those communities are always updated and categorized to the different sectors, to be employed and included in the responding measures and activities of the government and/or any other parties in the future.

Surveys and needs assessments implemented during the previous programmes and activities have been also considered for this purpose, in addition to the meetings and consultations with the proposed executing partners in this proposal, which also have their means of communication and feed-back loops both on the national and local levels.

a comprehensive consultative process is to take place during the development of the full proposal, and should involve all direct and indirect stakeholders of the project.

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

This project proposal is a pilot in addressing resilience of poor and vulnerable communities in Jordan to climate change related risks of water shortage and food insecurity. There are no adequate government financial sources to finance such very important climate change activities. Therefore, Cost-effective, integrated approaches and practices are needed. The project also covers many goals highlighted in the country priorities of the key climate-related and sector specific national policies and strategies including: Environment, Water, Poverty Reduction, Socio-economic and agricultural strategies.

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project / programme.

Sustainability of the project will be ensured by increased resilience of the poor and vulnerable communities to climate change related risks through increasing adaptive agricultural management practices, and new more adaptive crops and varieties to cope with climate change conditions; efficient and balanced water supply that meets the demands and cope with the predicted water shortages in the future; Integrated water management, treatment and reuse of grey water towards sustainable water availability for vulnerable communities in Jordan will be promoted.

Institutional sustainability of the project will be ensured through building capacities of stakeholders, maintain links among partners and involvement of local community, NGOs, and women, implementation of activities through farmers, civil society organizations and the private sector with support from implementing agencies.

Social sustainability of the project will be ensured by the participation of local communities in management, decision making. Financial and economic sustainability of the project will be ensured by improving the livelihood of targeted populations, and minimizing the burden on GOJ's budget through actively involving local organizations and the private sector in project implementation.

MINISTRY OF ENVIRONMENT

No.
Date:

The Adaptation Fund Board Secretariat
1818 H Street NW
Washington DC. 20433
U.S.A
Fax: +1 (202) 522 3240/5
Email: Secretariat@Adaptation-Fund.org

Subject: Endorsement for Jordan's Proposed Project:
Increasing the Resilience of Poor and Vulnerable Communities to Climate Change Impacts in Jordan

Dear Sirs,

In my capacity as designated authority for the Adaptation Fund in the Hashemite Kingdom of Jordan, I confirm that the (*Increasing the Resilience of Poor and Vulnerable Communities to Climate Change Impacts in Jordan*) Project proposal is in accordance with the Government of Jordan's priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Hashemite Kingdom of Jordan.

Accordingly, I am pleased to endorse the above-mentioned Project proposal with support from the Adaptation Fund. If approved, the Project will be implemented by the National Implementing Entity in Jordan, which is the Ministry of Planning and International Cooperation (MOPIC), and the Project will be also executed by MOPIC.

Please accept my high esteem and consideration.

Sincerely,

Eng. Yahya Kisbi
Minister of Public Works and Housing
And Acting Minister of Environment

THE HASHEMITE KINGDOM OF JORDAN-AMMAN