1. Project Data

Summary project data			
GEF project ID		4036	
GEF Agency project ID			
GEF Replenishment Phase		GEF-4	
Lead GEF Agency (include all for joint projects)		International Fund for Agricultural Development	
Project name		Irrigation Technology Pilot Project to Face Climate Change Impact in Jordan (ITPP)	
Country/Countries		Jordan	
Region		Asia West	
Focal area		Climate Change	
Operational Program or Strategic Priorities/Objectives		Climate Change – Strategic Program for Adaptation (SPA)	
Executing agencies involved		Ministry of Planning and International Cooperation; Ministry of the Environment; National Center for Agricultural Research and Extension	
NGOs/CBOs involvement		None	
Private sector involvement		Agriculture Credit Corporation (ACC); Water Users Association (WUA)	
CEO Endorsement (FSP) /Approval date (MSP)		April, 2011	
Effectiveness date / project start		October, 2012	
Expected date of project completion (at start)		October, 2016	
Actual date of project completion		June, 2018	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	0.15	0.15
	Co-financing	0.2	0.2
GEF Project Grant		2.0	1.55
Co-financing	IA own		
	Government	4.1	1.23
	Other multi- /bi-laterals		
	Private sector	1.4	
	NGOs/CSOs		
	Beneficiaries		4.69
Total GEF funding		2.15	1.7
Total Co-financing		5.7	6.12
Total project funding (GEF grant(s) + co-financing)		7.85	7.82
Terminal evaluation/review information			
TE completion date		March, 2018	
Author of TE		Mr. Pedro Regato	
TER completion date		January, 2020	
TER prepared by		Ritu Kanotra	
TER peer review by (if GEF IEO review)		Molly Watts Sohn	

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	S	MU	-	MU
Sustainability of Outcomes		MU	-	MU
M&E Design		U	-	MU
M&E Implementation		U	-	U
Quality of Implementation		MS	-	MS
Quality of Execution		NA	-	UA
Quality of the Terminal Evaluation Report		-	-	S

3. Project Objectives

3.1 Global Environmental Objectives of the project:

As per the Project Document, the Global Environmental Objective of the project can be described as 'to increase the resilience to climate change impact of Jordan's water system, acknowledged to be a key resource of agriculture production' (PD, Pg 33).

3.2 Development Objectives of the project:

As per the Project Document, the Development Objective of the project was 'to improve economic productivity of land while promoting the sustainable use of natural resources, particularly water' (PD, Pg 42). The project had the following two components:

Component 1: Pilot dRHS (Dutyion Root Hydration System) technology for efficient water use

Component 2: Targeted Technical Assistance (TA) training on the installation/use of the system

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

The initial project approved by the GEF at the end of 2011 had to be re-designed as the technology for high-efficient and salted water irrigation that had been selected DRHS (Dutyion Root Hydration System-dHRS) did not prove successful in Jordan after the pilot testing carried out by National Center of Agriculture Research and Extension (NCARE) staff in several sites. Hence, the project went through a re-designing process and eventually took off in January 2014. The project team organized a consultation process with experts from the Jordan University (JU) and NCARE, as a result of which eight new technologies were identified: (1) fertigation; (2) solar water pumping; (3) small scale brackish water desalination using solar energy; (4) hydroponics; (5) aquaponics; (6) computerized irrigation system; (7) reuse of greywater in irrigation; (8) buried diffuser for subsurface micro-pressurized irrigation. According to the PIR, 2016, these amendments were agreed with GEF (PIR-2016, Pg 4) as a result of which the project components were revised to be the following:

Component 1: Identification, implementation and expansion of irrigation technologies in Jordan

Component 2: Training, capacity building and communication

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: **Satisfactory**

The TE assessed the relevance of the project as 'moderately unsatisfactory'. But based on the evidence in the available reports, this TER has revised the rating to 'satisfactory'. The project was designed to address the water scarcity in Jordan - one of the most water scarce countries of the world. Water scarcity was identified as a leading constraint in the agriculture sector, which is one of the main consumers of water in the country. With climate change expected to exacerbate the problem further, the project was designed to introduce new technology to improve water use efficiency and address the climate change impact in the country. The project was well aligned and contributed to the priorities of the sectorial strategies and policies of the Government in the environmental, agriculture, and water management sectors, such as the Third National Communication (TNC) to the UNFCCC, the National Strategy for Agriculture Development (NSAD), the Poverty Reduction Strategy (PRS), the aligned National Action Plan (NAP) to Combat Desertification in Jordan, and the Water Strategy, among others.

The project was also in line with the GEF climate change strategic objectives, particularly in relation to the Climate Change – Strategic Program for Adaptation (SPA) focal area aiming to support pilot and demonstration projects that increase capacity to respond to the adverse impacts of climate change.

4.2 **Effectiveness**	Rating: **Moderately Unsatisfactory**

This TER agrees with the rating assigned to the effectiveness of the project as 'moderately unsatisfactory'. The initial project approved by the GEF had to be re-designed as the technology for high-efficiency and salted water irrigation - Dutyion Root Hydration System (DRHS) selected during the design phase did not prove successful in Jordan. The project went through a re-designing and consultative process and eventually took off in January 2014 during which eight new technologies were identified for field application. While the project achieved significant results in terms of innovation and technology development, the late procurement and installation of most of the equipment prevented the demonstration of its benefits during the project time frame. This also delayed the organization of the associated trainings and awareness generation, which was crucial for adoption and replication of these technologies in other similar agroclimatic zones. Moreover, the high cost of most of the proposed technologies and the need to co-finance 25 percent did not allow targeting of the poor farmers as originally envisaged in the project document. The project also failed to create the enabling conditions – policies, financial mechanism and a critical mass of skilled trainers/extension agents- which further reduced the capacity of the project to achieve expected results.

Component 1: Identification, implementation and expansion of irrigation technologies in Jordan

As per the TE, at project end 30 solar systems for a water pumping and 7 hydroponic system were still pending with the commitment to be completed before the end of the requested extension period of 3 months. The TE notes 'considerable delays in selecting the project beneficiaries….delivery of the equipment by contractors' prevented, in most cases, the use of the installed equipment and demonstration of their benefits in terms of improved production." Similarly, 20 fertigation systems were installed by March 2017, the benefits of which were not going to be entirely visible till farmers used this equipment for the entire production cycle. But, the TE also acknowledges that the few farmers consulted during the mission were able to use the new equipment, and that it had saved more than half of the amount of fertilizers initially used, had increased yield between 28 to 62%, and reduced energy costs by 67%. The output related to carrying out the policy assessment, lobby and advocacy action was not achieved. Significant delays and excessive time dedicated to follow on contractors for the delivery of equipment and infrastructure reduced the time and capacity available to the project team to address this output.

Component 2: Training, capacity building and communication

The TE notes that delays in purchasing and installation of the equipment and infrastructure in the selected farmland plots related to Output 1.1, prevented the organization of training courses for farmers, extension agents and trainers as envisaged under Output 2.1 of component 2. Installation of the equipment was a pre-requisite for training courses that also involved field demonstrations. The project could support only 2 trainings for 20 farmers who benefitted from the fertigation system, with limited training activities for individual farmers carried out by contractors during the installation of rest of the equipment.

With reference to the awareness raising under Output 2.2, the project had designed and published awareness materials (brochure, poster and booklet) about the fertigation equipment. But all the other planned awareness raising activities related to different equipment could not be undertaken and were also not likely to be completed within the three-month extension of the project as, according to the TE, 'these services had not been contracted to any organization' at the time of the evaluation (TE, Pg 23).

4.3 **Efficiency**	Rating: **Unsatisfactory**

This TER agrees with the rating assigned to the efficiency of the project as 'unsatisfactory'. The project suffered long delays in project start-up; including set up the Project Management Unit (PMU); as well as delays during implementation due to lack of capacity of the administration to handle fiduciary related issues as well as of the management of contracts and bidding processes. The accumulated delays affected the expenditure and consequently the achievement of project results. Since most of the equipment were still being installed, the related training and awareness generation activities were still not contracted at the time of the evaluation. As a result, the project utilized only 77.89% of the GEF budget. The expenditure was particularly low on studies and technical assistance, which could not be undertaken due to late installation of the equipment. The project also made little effort to establish collaboration frameworks with other partners and stakeholders active in this domain, which seriously harmed the efficiency of the project.

4.4 **Sustainability**	Rating: **Moderately Unlikely**

The TE assessed the likelihood of sustainability as 'moderately unsatisfactory'. Based on the narrative in the available reports, this TER has assessed it to be 'moderately unlikely'. The project has laid the ground work in terms of introducing the innovative technologies and improved interactions between various actors such as National Center for Agriculture Research and Extension (NCARE), Agriculture Cooperation (ACC) and other decision makers at the Ministry of Agriculture (MoA), which could result into new funding opportunities to support and upscale these technologies in future. But the project suffered delays, which prevented the project team to inform decision makers about the demonstrated benefits of the supported technologies and undertake the foreseen nationwide campaign for a conducive institutional and governance framework. Moreover, unless new financial mechanisms are worked out to support not only the medium but also poor farmers and technologies are upscaled and replicated at the national level, Jordan is still 'highly' vulnerable to risks posed by climate change and fast degradation of soil and water resources, due to the heavy abstraction of groundwater and maladaptive practices currently prevalent in agriculture.

Financial Sustainability

As per the PD, the project was expected to sustain and further improve the decentralized management of land and water resources by up-scaling and identifying financial mechanisms adopted by the end of the project's life. However, as the project suffered delays, most of the activities did not produce the expected results in terms of financial return by the scheduled time frame. The TE highlighted that the ACC developed interest free credits for fertigation, solar pumping and hydroponics, creating opportunities for the upscaling of these equipment. Also, IFAD supported the Rural Economic Growth and Employment Project which was approved in 2015 for farmers to invest and upscale the adoption of the climate-resilient technologies supported under the current project. But high cost of the equipment could be a major deterrent for the small holder farmers to adopt these technologies as the current project also supported medium farmers who could afford to meet the co-financing requirement.

Institutional and Governance framework risk:

The TE assessed the likelihood of sustainability due to institutional and governance framework risk factors to be 'moderately satisfactory'. The TE notes that the project enhanced the capacity of National Center for Agricultural Research and Extension (NCARE) to fulfil its mandate of providing support to farmers in the selection, installation and management of agriculture produce. Moreover, the long-term engagement of IFAD in Jordan is likely to strengthen their institutional capacity and more informed decision-making process in future. However, the accumulated delays impacted the achievement of the results under Outcome 1 and 2, which prevented the project team from informing decision makers about the demonstrated benefits of the supported technologies and undertake the foreseen local and national-wide campaigns. The project failed to achieve a conducive institutional and governance framework capable to sustain project outcomes and benefits.

Socio-political risks

One of the shortfalls of the project has been its limited ability to reach the original target group - very poor smallholder farmers - which resulted in targeting medium farmers, due to the cost of the technology and the need for co-financing on behalf of the farmers. Although the technology was accepted by medium farmers, lack of evidence on its benefits during the project cycle, makes it uncertain if the farmers will remain interested in future. The TE had an optimistic tone indicating that

'once results are obtained in the forthcoming years, National Center for Agricultural Research and Extension (NCARE) will make sure that the information is transferred to more farmers and decision makers, thereby contributing to the establishment of financing mechanisms to support the future adoption of the technology at the national level'.

However, the TE rated the overall stakeholder participation as 'moderately unsatisfactory', stating that the project could have been more effective in establishing collaborations and benefiting from the participation of key actors in knowledge sharing, project implementation, and creation of political opportunities for the dissemination of the promoted technologies.

Environmental risks

The technology such as Fetigation equipment promoted under the project has the potential to show significant environmental benefits in future and guard against the impacts of climate change. But, one of the main environmental risks defined in the TE is fast degradation of soil and water resources, due to the heavy abstraction of groundwater and maladaptive practices in agriculture. Also, given that Jordan still has a very 'high' vulnerability and is extremely sensitive to the impacts of climate change, the technologies supported under the project need to be further supported in order to show concrete results and guard against the current environmental risks. The TER recommended IFAD to provide more support to the Government of Jordan to secure additional climate funds and build on the current outputs of the project in order to increase the resilience of the agroecosystems to climate change in long term.

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

As per the original project budget, the co-financing contributions were to be made by National Center of Agriculture Research and Extension (NCARE), the implementing agency and Dupont, the private sector organization responsible for providing the original technology named Dutyion Root Hydration System (dRHS). However, the project was redesigned and 8 different technologies were developed with the help of Jordan University (JU). As per the TE, the co-financing budget was revised with the total in-kind contribution of USD 6,713,500 from the Government of Jordan, National Center of Agriculture Research and Extension (NCARE), Jordan University and project beneficiaries (TE, Pg 8). The TE provided details of the co-financing materialized during the project. The Government contributed through customs and VAT exemptions for a total amount of USD 374,329.20 (27.5% of the expected contribution); NCARE contributed through staff time, office space and transportation for a total sum of USD 856,508.45 (26.9% of the expected contribution). The University of Jordan did not provide the expected contribution, as this consisted of the coverage of human resources and organization of the training courses and workshops that had not yet taken place at project closure. However, as per the TE, in-kind and cash contribution from the beneficiaries was to the extent of USD 4,695,700 (in kind – USD 4,394,400 and cash – USD 301,900). The in-kind contribution was estimated considering different items such as land rental cost; warehouse rental cost; cost of fences and other similar items. The contributions from the beneficiaries was not part of the original project design. However, the revised project budget included an element of beneficiary contribution (25% of the cost of equipment) due to which, as per the

TE, the project could not reach out to its target community of poor farmers and only benefit medium income farmers capable of making the expected contributions.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The project suffered delays at various stages due to the following reasons: the need for project re-design GEF in regards to the planned technologies (the project became effective in January 2014 with expected completion by March 2018); delays in the start-up due to various administrative issues related to establishment of Project Management Unit; lack of technical know-how and weak administrative capacity with respect to fiduciary and procurement issues; lack of a regular reporting process; and excessively long consultation with farmers on the adoption of proper technologies. Most of the progress was made during the last year of the project as it only spent 7.4% of the GEF budget until 2016. The delays and slow progress impacted the achievement of project results. Since most of the equipment were still being installed at the time of the TE, the project failed to achieve the desired technological scale, undertake the associated trainings and awareness generation as well as policy advocacy that have an impact on the sustainability of the project.

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

Although the project met with various challenges, the evidence in the available reports does not indicate that the project had poor ownership from the government. The technology that was originally envisaged to be promoted through the project, was not found suitable in the context of Jordan. The Government along with the University of Jordan took the initiative to develop different technologies more suitable for the local conditions. However, it is evident that the government lacked the capacity to deal with the financial and technical issues to support the project activities. Although the technologies developed under this project proved to be technically viable and that the Government of Jordan had shown its commitment through ratification of various conventions, it will need further support to develop enabling policy environment and financial mechanism to sustain the project outputs in future.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: **Moderately Unsatisfactory**

The TE provided a combined rating of the quality of M&E design at entry and implementation as 'unsatisfactory'. This TER revised the rating for the M&E design at entry to be 'moderately unsatisfactory'. The original project design included a results framework, with a set of indicators and targets, subject to revision once the project took off. But some of the preliminary indicators were too

ambitious to be achievable within in the project time frame. For instance, the indicator 'type and number of relevant policies and framework developed or strengthened' was too ambitious to be achieved within in the scope of the current project. The project document also recommended undertaking baseline but there was no budget allocated for the same (PD, Pg 5), which was necessary to monitor and evaluate the efficiency of the technologies promoted through the project. However, the original M&E framework provided an overall guideline and time frame for producing various monitoring reports and allocated the budget for inception workshop, carrying out midterm reviews and the terminal evaluation. It also recommended development of targets and means of verification for periodic progress check of the project.

6.2 **M&E Implementation**	Rating: **Unsatisfactory**

This TER agrees with the rating to M&E implementation as 'unsatisfactory'. As per the TE, the project did not develop a proper M&E plan with precise and measurable performance and impact indicators. The project also did not carry out a baseline assessment, which made assessment of the impact of the project even more difficult at the time of the TE. The data gathered was mainly related to the process indicators such as 'farmers' opinion about the training provided by the contractor company or number of completed installations' instead of outcome indicators such as 'quantity of water saved through new technology or % of the target groups with an increased awareness level of adaptation technology' (TE, Pg 42). The project had produced only one progress implementation and M&E report at the time of the TE. Overall, the project failed to develop a system to gather information and report on the progress towards project outputs and outcomes, which further prevented the adaptive management, with limited data to assess the results from the use of the installed equipment in terms of its cost effectiveness, environmental and socio-economic benefits, and consequently formulation of lessons learned (TE, Pg 50).

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: **Moderately satisfactory**

This TER agrees with the assessment of the quality of project implementation by the TE as 'moderately satisfactory'. Despite IFAD support to the National Center of Agriculture Research and Extension (NCARE) (the executing agency) with four implementation support missions and a full-time project management consultant, the TE brings out a number of issues that negatively impacted the execution of the project. IFAD's proposal for cash contributions made it difficult for poor farmers to benefit from the equipment. Also, there was lack of clarity on how the cash collected from the farmers was going to be used and it was still lying unspent with NCARE at the time of the TE. The executing agency required clear guidelines from IFAD on the process to integrate the cash contribution from the farmers in the financial management system of the project. The executing agency also required more support from IFAD in

developing M&E and on technical aspects. IFAD sent different consultants at various stages which did not provide continuity and hence was not found very effective by the executing agency.

7.2 **Quality of Project Execution**	Rating: Unable to assess

The TE did not assess or provide a rating to the quality of project execution. There is not enough information in the available reports for this TER to assess this aspect.

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The project lacked a M&E system and did not undertake the baseline assessment to capture the environmental changes. Moreover, due to project delays, most of the equipment installed were still not used at the time of the TE, so the environmental benefits of using these equiment could yet not be demonstrated.

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

Due to the project delays, most of the equipment were still not used at the time of the TE. It would take some time before any changes may be realized or visible.

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. “Capacities” include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. “Governance” refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

According to the TE, despite various challenges, the project enhanced the capacity of National Center of Agriculture Research and Extension (NCARE) to fulfil its mandate to provide support to farmers in the

selection, installation and management of agriculture production equipment, and thereby contributed to increase their adaptive capacity to climate change.

b) Governance

The project did not report any changes in the governance.

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

The TE did not report any unintended impacts.

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

The project suffered considerable delays and most activities had not produced the expected results by the scheduled end of the work. The project has not had the opportunity to yield concrete results from the investments and demonstrate the replication potential beyond the project life span. However, as per the TE, the positive interaction between National Center of Agriculture Research and Extension (NCARE), Agriculture Credit Corporation (ACC) and decision makers at the Ministry of Agriculture (MoA), resulted in new funding opportunities for farmers to invest and upscale the adoption of the proposed climate-resilient technologies in future (TE, Pg 35). IFAD Rural Economic Growth and Employment Project (REGEP) also represents a good opportunity to complement and scale-up the project activities in future.

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

The main lesson listed in the TE are as follows:

1. Implementing agency must ensure robust coaching and supervision of the project staff at the initial stages to avoid delays and speed up at the start of the work plan. This is crucial for successful completion of the project.
2. Projects addressing complex issues such as climate change adaptation and the replacement of conventional agriculture by climate-resilient agronomic systems and technologies, requires continued support of international experts with solid knowledge and experience in guiding and training project teams, service providers and beneficiaries from areas with similar environmental and socio-economic problems.

3. Learning visits to best practices and case studies abroad are a valuable tool for the motivation of civil servants and decision makers, during capacity building process linked to policy objectives.
4. Empowerment of local communities and service providers through adequate awareness and capacity building support is crucial to maximize the impact of technology development and field investments.
5. In case of introducing a new approach or technology in a country, critical early steps must include mapping of all potential partners and negotiation of clear outsourcing agreements, including national and international providers.
6. In case of continued capacity building needs of the project of this kind, it is important to carefully plan and ensure the continuity of the process, so as to make the most of the already existing knowledge related to the agronomic systems and technologies supported by the project, from both other partners in Jordan and from abroad.

9.2 Briefly describe the recommendations given in the terminal evaluation.

The main recommendations listed in the TE are as below:

1. The target group must be involved in all phases of the project, from the design, planning, implementation and monitoring, so that a most accurate and consensus decision-making in the type of investments to be supported under the project is reached.
2. A theory of change should be developed at project design and/or start-up phase so as to make visible and explicit the rationale behind what we do and why, and the causal package of activities plus assumptions that together are expected to contribute to the intended results.
3. A well-established baseline situation and monitoring and reporting mechanism should be established as a prerequisite for adaptive management, to systematically test assumptions in order to adapt and learn.
4. The executing agency should set up a competent fiduciary (accounting and procurement) team dedicated to the project with accounting software before start up to capture problems like under-expenditure and delays in procurement process, and that these aspects to become a precondition for disbursement, as well as for the planning and adaptive management.
5. For future projects, IFAD should assess whether there is room to provide more on-the-job training required to understand the GEF and IFAD policies and procedures, and fill major knowledge gaps within the project team – i.e. in the areas of M&E, sustainable NRM and climate change adaptation, procurement and finance management, project cycle.
6. For future projects, Steering Committee should be established in an appropriate manner, with a good representation and clear commitment on the part of the members, and effective mechanisms for their regular involvement in the project implementation.
7. International technical assistance (ITA) is a major need in development projects, especially in the context of climate change, to ensure that beneficiaries and service providers acquire the necessary understanding and capacity to apply climate-resilient agronomic systems and techniques, and an effective adoption and adequate use of the new technologies.
8. In the future, it is recommended to adapt the scale of technology to the socio-economic context of the beneficiaries, so that the innovations developed by the contractors are accessible to them, even with the condition of co-financing.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	**GEF IEO comments**	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The TE provided a detailed assessment of relevant outcome and impacts of the project and the achievement of the objectives.	**S**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The report is internally consistent with complete evidence, except a commentary and assessment of the performance of the executing agency. The TE highlighted various challenges faced by the project. However, there is only a sporadic evidence on the extent to which the project was supported by the Government and the executing agency.	**MS**
To what extent does the report properly assess project sustainability and/or project exit strategy?	The TE provided a detailed account of the sustainability of the project.	**S**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	The lessons learned are comprehensive and supported adequately by the evidence in the main body of the report.	**S**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	The report included details on the actual project cost and the co-financing used. However, this project was unusual in terms of mobilizing a large amount of cash co-financing from the beneficiaries, which according to the TE was showing as unspent in the project accounts. Although there is not enough explanation on whether this was just an accounting issue or the activities committed to the beneficiaries in the field were not achieved. The TE also noted IFAD's recommendation to return these funds to GEF, which probably should have been probed further at the time of the TE.	**MU**
Assess the quality of the report's evaluation of project M&E systems:	The TE made an elaborate and satisfactory assessment of the quality of the project's M&E systems	**S**
Overall TE Rating		**S**

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).