



Enabling poor rural people  
to overcome poverty

Independent Office of Evaluation

**Hashemite Kingdom of Jordan**

**National Programme for Rangeland  
Rehabilitation and Development**

**PROJECT PERFORMANCE ASSESSMENT**



May 2012



**The Hashemite Kingdom of Jordan**  
**National Programme for Rangeland Rehabilitation and Development**  
**Project Performance Assessment**

## **Photos**

Front cover: Water management work from the project bringing water to the rested areas of Menshiat el Ghieth in North-East Badia. Nomadic herders are allowed to bring their sheep and goats to graze in these areas normally once a year.

Back cover: Nomadic herder with his flock near Ruwayshid. (left); Private part in the Bedouin tent of a nomadic herding family near Ruwayshid (right).

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## Preface

The IFAD-supported National Programme for Rangeland Rehabilitation and Development performed poorly during its first years and suffered as well from the socio-economic complexity and environmental vulnerability of rangeland management in the Badia. Nonetheless, it achieved several results overall: a national pastoral resources information monitoring and evaluation unit was established, water harvesting and conservation structures were constructed and a few protected areas were established. The project impact was however limited - some savings on supplementary feeding and water availability for the flocks - because of drought and issues of land use rights, and also because of serious implementation delays and poor participatory rangeland management.

The assessment recommends adopting a holistic approach to the sustainable rehabilitation of the Jordan rangelands with carefully planned long-term bottom-up approaches and setting up an enabling policy environment aiming to ensure the viability of herding within the overall context of national food security. The report also suggests defining thorough implementation strategies for IFAD-supported projects that include oversight mechanisms for rapid corrective measures when needed.

This Project Performance Assessment was prepared by consultant Ahmed E. Sidahmed (Range Livestock Systems Specialist), Cécile Berthaud, Evaluation Officer and Marie Louise Ndiaye, former IOE Evaluation Assistant. Anne-Marie Lambert and Fabrizio Felloni, Senior Evaluation Officers, provided comments on the draft report.

The Independent Office of Evaluation is grateful to the IFAD's Near East, North Africa and Europe Division for their inputs at various stages throughout the evaluation process. Appreciation is also due to the Government of Jordan and all in-country stakeholders for their constructive collaboration and the support provided to the mission.



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Two members of the Ruwayshid women cooperative in their dairy processing facility. The facility was built and equipped with the support of the IFAD project. ©IFAD/Ahmed Sidahmed and Cécile Berthaud



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*The appendices are available upon request from the Independent Office of Evaluation of IFAD ([evaluation@ifad.org](mailto:evaluation@ifad.org)).*

## Currency equivalents

Currency unit = Jordan Dinar (JOD)

US\$1 = 0.708 JOD

US\$1 = 1.62193 SDR

(May 2012)

## Abbreviations and acronyms

ACC	Agricultural Credit Corporation
ACSAD	Arab Center for the Study of Arid Zones and Dry Lands
AFESD	Arab Fund for Economic and Social Development
ARMP	Agricultural Resources Management Project
BRP	Badia Restoration Program
COSOP	country strategic opportunities programme/paper
CPE	country programme evaluation
CPM	country programme manager (IFAD)
DRM	Directorate of Range Management
du	Dunum (0.10 ha)
FDA	field directorate of agriculture
GEF	Global Environmental Facility
HFDJB	Hashemite Fund for the Development of Jordan Badia
IDA	International Development Association
IOE	Independent Office of Evaluation of IFAD
JOD	Jordan Dinar
JOHUD	Jordan Hashemite Fund for Human Development
M&E	monitoring and evaluation
MOA	Ministry of Agriculture
MOE	Ministry of Environment
MoPIC	Ministry of Planning and International Cooperation
MTR	Mid-Term Review
NCARE	National Center for Agricultural Research and Extension
NEN	Near East, North Africa and Europe Division (IFAD)
NGO	non-governmental organization
NPRRD	National Programme for Rangeland Rehabilitation and Development
PCR	project completion report
PCRV	project completion report validation
PMD	Programme Management Department (IFAD)
PMU	project management unit
PPA	project performance assessment
PRIME	Pastoral Resources Information M&E
RMGs	rangeland management groups
RSCN	Royal Society for the Conservation of Nature
SDR	Special Drawing Rights
UNCC	United Nations Compensation Commission
US\$	United States dollar
USAID	United States Agency for International Development

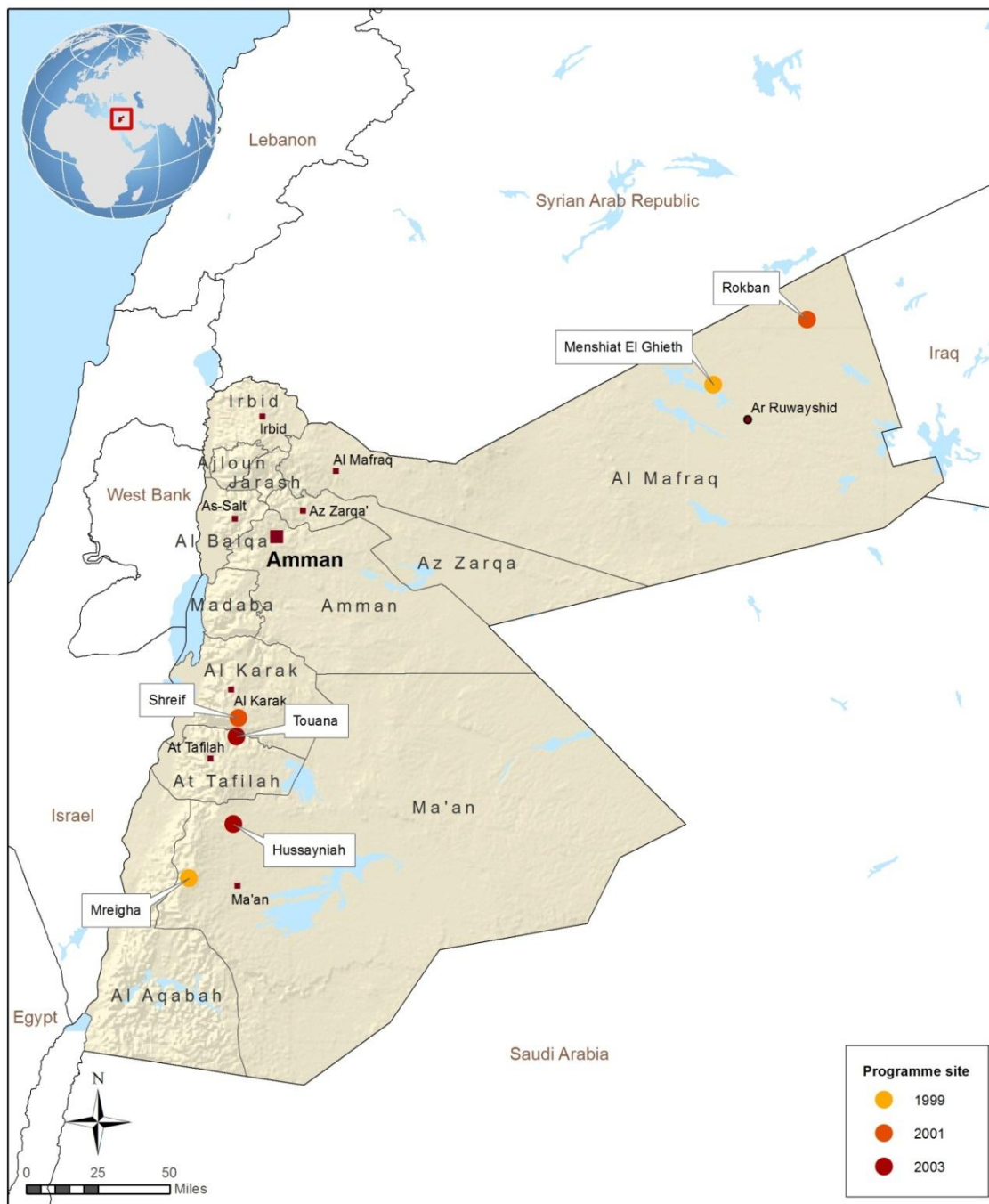


# Map of the project area

## Hashemite Kingdom of Jordan

### National Programme for Rangeland Rehabilitation and Development - Phase I

#### Project Performance Assessment



11-7-2011



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

IFAD Map compiled by IFAD

## Executive summary

1. **The project.** The National Programme for Rangeland Rehabilitation and Development (1999-2006) was a project designed as the first phase of a programme that aimed at arresting and reverting the continued decline in Jordanian rangeland resources linked in particular to sharp increase in livestock numbers. The overall goal was to re-establish the productive capacity of rangeland resources in order to realize their significant environmental, social, cultural and economic contribution for present and future generations. The objective of the project was to reduce environmental degradation of rangeland resources in the Badia region by introducing sustainable community driven resource management practices and supporting the establishment of a functional Directorate of Rangeland Management in the Ministry of Agriculture. Activities at the national level included capacity building in generating the information and knowledge needed to develop strategies and policies for the sustainable improvement and use of the rangeland resources. At the local level, participatory rangeland restoration and management activities were implemented in five pilot areas in North-East and South Badia. The project costs were estimated at US\$9 million of which US\$4 million came from the IFAD loan. Total expenditures at project completion were US\$5.47 million.
2. **The assessment.** The present performance assessment of the above project was undertaken in the context of the country programme evaluation of IFAD-supported activities in Jordan. The aim was to provide an independent assessment of the project results and draw lessons for future IFAD cooperation in Jordan as well as Government programmes in the Badia.
3. The project performance was low during its first three years and a half, with a disbursement rate of only 17%. This was due in part to a persistent drought during the period but can be mainly attributed to internal factors, e.g.: (i) project management unit located in North-East Badia and inheriting staff and activities from a closed project; (ii) imbalance of activities between this area and South Badia; (iii) insufficient project start-up and monitoring and evaluation arrangements; and (iv) top-down approach with communities. Corrective measures were taken after four years so the actual implementation period was reduced to two years for most of the physical works and the participatory management plans.
4. Despite the above difficulties and the socio-economic complexity and environmental vulnerability of rangeland management in the Badia, the project managed to achieve several results. The pastoral resources information monitoring and evaluation (PRIME) unit at the Directorate of Range Management was established and functional until project closure. Most of the training activities for herders and technical staff were conducted and most of the water harvesting and conservation structures were constructed, functional and maintained. Protected areas were established, which contributed to savings in supplementary feeding for a small number of herders.
5. But the core social and organizational aspects needed more time and could only be achieved in a very limited way. The PRIME unit did not influence important policy changes for the rangelands and became dysfunctional after project closure. The rangeland management groups constituted in each pilot site were generally composed of the better-off herders and did not lead to the development of the community-driven participatory plans for the sustainable management of the rangelands. The participatory approach was poorly implemented and there were problems with site selection. The current improved and rested areas are small and concentrated only in two out of the five pilot sites. Grazing in these rested areas could only happen twice overall and the areas are now managed by the field directorate of agriculture and not by the communities. The project benefits were limited to a few savings for some better-off herders on supplementary feeding and water availability for some flocks.

6. The overall impact and sustainability of the project were limited for the following main reasons: (i) drought and issues of land use rights in some sites; (ii) start-up and management problems that caused serious implementation delays in the South Badia pilot sites; (iii) poor performance in the implementation of participatory planning both for community empowerment and rangeland management; and (iv) lack of an exit strategy to ensure sustainability of the groups as well as community ownership and management of the pilot sites.
7. Based on the limited achievements and in view of alternative funding sources for rangeland activities in Jordan, the Government and IFAD decided not to pursue this pilot phase with a next phase of the programme.
8. **Findings and recommendations.** In addition to the above summary assessment of project results and contributing factors, the evaluation has identified three main findings. First, the project failed to develop an appropriate implementation strategy lacking in particular a thorough start-up phase, a solid monitoring and evaluation system, a transparent recruitment process for project staff and an exit strategy. Second, the sustainability of institutional and capacity building interventions were affected by high staff turn-over and insufficient resources in the counterpart institution as well as insufficient involvement of other stakeholders. Third, supplementary feeding – barley feeds and crop residue – plays a key role in livestock breeding in Jordan while the contribution of the rangeland is limited. Feed prices and related subsidies therefore play a major role both in supporting smaller herders and promoting rangeland resource conservation.
9. The main recommendations relate to the following: (i) give due attention to the implementation strategy and set up oversight mechanisms that enable rapid corrective measures in case of serious difficulties in project management; (ii) define a holistic strategy for the sustainable rehabilitation of the rangelands with carefully planned long-term bottom-up approaches incorporating linkages between water, soil, animal nutrition and health as well as long-term financial and environmental sustainability of herders' livelihoods; (iii) adopt a true participatory approach as one of the key elements of sustainability, and (iv) set up an enabling policy environment with legal, financial and institutional tools and drivers including land tenure rights and an incentives and compensations system that ensures the viability of herding within the overall context of national food security.

Nomadic herder interviewed by the evaluation mission in his tent, near Mreigha, Southern Badia. The majority of smallholders have lost all, or part, of their animals during the past 10 years due to drought and overgrazing.  
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# Main report

## I. Background, methodology and process

1. **Background and objectives.** This project performance assessment (PPA) of the National Programme for Rangeland Rehabilitation and Development (NPRRD) is a project-level evaluation aiming to: (i) provide an independent assessment of the overall results and impact of the project, for accountability and management purposes; (ii) distil lessons learned through the generation of findings and recommendations, identifying key explanatory factors of project performance and poverty reduction results, for learning and self-evaluation purposes. A PPA is conducted as a next step after a Project Completion Report Validation (PCRVR), providing additional evidence on project achievement and further validating the conclusions from the completion report of the project. Both PCRVRs and PPAs are conducted by the Independent Office of Evaluation of IFAD (IOE). The PCRVR consists of a desk review of the Project Completion report (PCR) and other available reports and documents. A PPA includes country visits in order to complement the PCRVR findings and fill in selected knowledge and information gaps identified in the PCRVR.
2. A PCRVR was conducted in March 2011 that highlighted areas requiring more information and evidence from a PPA exercise. These areas included impact and sustainability of project initiatives, and influence of the policy environment. The NPRRD was selected in conjunction with the Country Programme Evaluation (CPE) for Jordan taking place in 2011. The findings of the present assessment could also be useful in the context of current IFAD cooperation in Jordan (Agricultural Resources Management Project – ARMP II – and IFAD-executed projects funded by the Global Environment Facility – GEF) and Government programmes in the Badia such as the Badia Restoration Program.
3. As the PCRVR, the PPA applies the evaluation criteria outlined in the IOE Evaluation Manual. In view of the time and resources available, the PPA is generally not expected to undertake quantitative surveys. The PPA adds analysis to the PCR based on interactions with country stakeholders, direct observations in the field and information drawn from interviews with project beneficiaries and other key informants. It relies necessarily on the data available from the project monitoring and evaluation system, including the PCR.
4. **Methodology.** The present PPA follows the key methodological fundamentals established in the IFAD evaluation manual<sup>1</sup> and the Guidelines for PPAs, adopting a set of evaluation criteria (see annex 4) and a 6-point rating system (annex 1). As such, while giving special attention to the specific areas mentioned above as needing additional evidence, it covers all the required evaluation criteria. The PPA team reviewed the available documents including the PCR, supervision reports and key documents prepared during project implementation.<sup>2</sup> This was followed by a visit to Jordan that included individual discussions with key stakeholders, direct observations during site visits, focus group discussions, and individual interviews with herders from five of the six project sites (Menshiat El Ghieth, Rokban, Shreif, Mreigha and Hussayniah)<sup>3</sup> and a few women beneficiaries. The sites for the field visits were selected in order to cover both regions targeted by the project (North-East and South Badia) and visit both successful and less successful sites based on the desk review.

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<sup>1</sup> [http://www.ifad.org/evaluation/process\\_methodology/index.htm](http://www.ifad.org/evaluation/process_methodology/index.htm).

<sup>2</sup> A full list of documents is presented in annex 6.

<sup>3</sup> A full list of people met and interviewed is presented in annex 5.



5. **Process.** The PPA mission<sup>4</sup> was undertaken from 9 to 20 April 2011 in close cooperation with the Jordanian Ministry of Planning and International Cooperation (MoPIC) and Ministry of Agriculture (MOA). The PPA mission coincided with the Jordan CPE preparatory mission and both teams held discussions with officials in MOA and MoPIC. The PPA mission held further meetings with several Government officials, parastatal and international institutions and other key informants concerned with Badia development before and after visits to the NPRRD field sites in North-East Badia and South Badia. At the end of the mission, a wrap-up meeting with key stakeholders was organised at MoPIC to share and discuss preliminary findings.
6. A recurrent concern during the PPA mission was the absence of reliable and consistent data from the project's monitoring and evaluation system. There were in particular no baseline study or reliable numbers on beneficiaries. The mission nevertheless gathered both quantitative and qualitative information. The latter were based on interactions with a significant number of stakeholders and institutions working in the Badia, discussions with government officials including relevant staff in field directorates of agriculture (FDA), project staff at central and local level, donors, non-governmental organizations (NGOs), and members of the project Permanent Steering Committee and Technical Assistance Group. Primary data were collected when possible to verify available information and to reach an independent assessment of project performance. The primary data collection methods included interviews with herders (beneficiary and non-beneficiary) and Badia development and rangeland experts. The mission also reviewed the MOA grazing permits for Menshiat El Ghieth and Rokban sites and a number of herder's booklets. The mission used triangulation techniques to substantiate its assessment, especially since it took place five years after project closure and several of its findings depart from the final completion report.
7. The present report provides a brief description of the project, followed by an overall summary of its implementation performance and a full review of the findings by evaluation criteria (project performance, impact, sustainability and a number of cross-cutting issues). It ends with a presentation of conclusions and recommendations.

## II. The project

### A. Project context

8. The goal of the National Programme for Rangeland Rehabilitation and Development – Phase I – was to reduce degradation of the rangeland resources through the introduction and development of sustainable management and improvement practices, and by supporting the establishment of a functional Directorate of Rangeland Management. The programme was envisaged as an important approach for arresting and reversing the continued decline in rangeland resources that was closely linked to sharp increase in livestock numbers in response to the rapid increase in human populations and demand for animal source foods.
9. The project was therefore the first phase<sup>5</sup> of a larger programme that would aim to re-establish the productive capacity of Jordan's rangeland resources in order to realize their significant environmental, social, cultural and economic contribution for present and future generations. The project was designed to address the national and local problems facing the Badia region in Jordan. Nationally the project aimed to strengthen the capacities of the relevant public institutions to generate the

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<sup>4</sup> The PPA mission consisted of Cécile Berthaud, IOE evaluation officer and team leader, and Ahmed E Sidahmed, consultant and livestock and rangeland systems specialist.

<sup>5</sup> This first phase corresponded to the initial pilot segment of a wider rangeland and livestock development programme in the Jordanian Badia. As explained later in the text, the larger programme with IFAD did not take place. The Government embarked nevertheless on a large programme for the Badia, the above mentioned Badia Restoration Program, funded by the United Nations Compensation Commission.

information and knowledge needed in developing strategies and policies for sustainable improvement and use of the rangeland resources. The local level activities were to be executed in five pilot areas in North-East and South Badia.

10. **Project design.** The aim of phase I was to achieve the following five main objectives: (1) provide policy makers with reliable and updated information on the current status of rangeland resources; (2) develop a national pastoral resources assessment monitoring system for the rangeland; (3) enhance environmental awareness in the utilization of rangeland resources; (4) develop methods of participatory planning with local communities for rehabilitation and management of grazing resources; (5) assist beneficiaries and target communities directly in the implementation and periodic revision of rangeland management plans.
11. The project consisted of four components: (i) participatory planning including the establishment of rangeland management groups (RMGs) in each of five pilot sites (6% of total costs); (ii) information and environmental awareness through the creation of a Pastoral Resources Information Monitoring and Evaluation unit (PRIME)<sup>6</sup> (24%); (iii) implementation of rangeland management plans in the pilot sites (53%), and; (iv) programme management for the timely organization and delivery of the activities planned for each of the above components (17%).
12. The primary targets of the programme were the rangeland resources and the Badia herding families. At appraisal it was estimated that the project would directly benefit 3,500 herding families living in the pilot areas and indirectly benefit all of the 12,242 herding families living on and from the rangelands. There would be benefits at community level in pilot areas in terms of improved rangelands (and greater carrying capacity), increased production and incomes (increased production value and profit margin of sheep), reduced workload for women and human resource development. Benefits at national level would include formulation of long-term policies for the rangeland and institutional building.
13. The project's main assumption was that the participatory approach would be fully embraced by all stakeholders leading to the development of an appropriate rangeland management plan which the community would be committed to making work.<sup>7</sup> It was assumed that carefully planned bottom-up approaches including training, capacity and awareness building would play a major role in ensuring the participation of the communities and the local authorities. It was anticipated that PRIME would trigger long-term national policies for the Badia that would lead to the reduction in rangeland degradation and an improvement in the livelihoods of the herding communities in the Badia.
14. **Project costs and supervision.** At the time of project design, total costs were estimated at US\$9.0 million, of which 4.0 million was IFAD loan, 4.5 million was the contribution from the Government and 0.5 million would be the contribution from beneficiaries. IFAD loan was reduced by SDR 500,000 in 2004 (US\$758,520). Total project cost at completion was US\$5.47 million. The supervision of the project was contracted to the Arab Fund for Economic and Social Development (AFESD).
15. **Management.** The project was managed under the overall responsibility of the Ministry of Agriculture (MOA) and the direct responsibility of the Directorate for Rangeland Management. The project management unit (PMU) was located for the first four years in Ruwayshid (North-East Badia) before moving to Amman. The project was implemented in pilot sites with the support of the field directorates of agriculture (FDA). Oversight and technical coordination were provided by a Permanent Steering Committee within the Ministry of Agriculture and a Technical Assistance Group with representatives from key public institutions.

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<sup>6</sup> PRIME functions included the following: carrying out surveys and studies, mapping Jordan's natural resources specially soil and water, evaluating on-going and previous activities; developing M&E guidelines; assessing livestock; promoting the adoption of policies and clarification of land tenure issues; promoting public awareness, and training.

<sup>7</sup> Project logical framework, Report and Recommendation of the President, 1997.

## B. Project implementation performance

16. This section provides an overall assessment of project implementation, in particular at the output level, based on the desk review and the findings of the PPA mission.
17. **Analysis of disbursement.** The cost of Phase I was estimated at appraisal at US\$9.05 million, of which US\$4.0 million (SDR 2.9 million) were provided by IFAD on intermediate lending terms. Several internal and external factors had negative effect on implementation of the project during its initial three years as documented in IFAD backstopping missions (see below sub-section on Implementation Results). The low performance was reflected in the poor disbursement level of only 17% of the loan after three years and a half. Disbursements accelerated after project reformulation and two loan extensions (from June 2003 to March 2004, and further until December 2005), but the overall financial performance remained below expectation with disbursement of only 65% of the original loan approved in 1997 (see table 1 below). At closing IFAD contribution amounted to 51% of the total expenditure and the Government of Jordan 49%. The beneficiaries did not contribute the estimated US\$0.50 million in cash or in kind.

Table 1

**Project cost by component (in '000 US\$)**

<i>Component</i>	<i>IFAD</i>	<i>Government of Jordan</i>	<i>Beneficiaries</i>	<i>Total at appraisal</i>	<i>IFAD loan disbursement at completion</i>
Participatory planning process	166.4	363.9	-	530.3	
Information and environmental awareness	265.5	1 917.9	-	2 183.1	
Implementation of rangeland management plans	2 820.8	1 403.2	493	4 817.3	
Project management	650.5	867.1	-	1 517.5	
<b>Total cost</b>	<b>4 002</b>	<b>4 552</b>	<b>493</b>	<b>9 048.1</b>	<b>65%</b>

Source: Project Completion Report, January 2007.

## Implementation results

18. An overall review of achievements is summarized in the PCR (annex 7), containing very few quantitative targets and indicators. The absence of such indicators during implementation points out to the lack of a functional monitoring and evaluation (M&E) system and makes it difficult to draw a precise picture of project achievements.
19. At the national level, NPRRD was expected to establish a functional unit capable of informing the policy makers with reliable assessment of the rangeland resources and users, and providing the planners and the decision makers with best rangeland rehabilitation and improvement practices generated from five representative Badia pilot areas. At the community level, the project was expected to benefit the rangeland users with the capacity to collectively plan, manage and improve the rangeland resources. The environmental benefits were envisaged through the establishment of measures to arrest rangeland degradation, establish water conservation and harvesting structures, and promote soil reclamation.
20. Overall, the project achieved only part of its planned outputs. The PRIME unit was established and functional until project closure. Despite initial difficulties most of the training activities for herders and technical staff were conducted and most of the water harvesting and conservation structures were constructed, functional and maintained. While rangeland management groups were constituted in each pilot site, they did not lead however to the development of community-driven participatory plans for the sustainable management of the rangelands. The

participatory approach was poorly implemented and there were problems with site selection (see details below under each project component).

21. These difficulties in implementation were due in part to a persistent drought in the first years of implementation but can be mainly attributed to internal factors. The project management unit (PMU) was located four years in the North-East Badia (in Ar Ruwayshid) and faced serious management issues, such as inheriting the project manager, numerous staff and the activities of a closed project (the Al-Hamad project from the Arab Center for the Study of Arid Zones and Dry Lands – ACSAD). The PMU was eventually relocated to Amman in August 2003 and a new project director appointed but the delays in taking corrective measures resulted in serious implementation issues: insufficient project start-up and M&E arrangements; imbalance between activities in North-East and South Badia; top-down approach with communities; and insufficient time left for the implementation of participatory planning, and range management and improvement activities.
22. **Participatory planning process.** This component included the following main outputs: (i) technical staff and communities trained in participatory approach; (ii) rangeland management groups (RMGs) formed in the five project sites; (iii) rangeland management plans elaborated for each site.
23. The project implemented training and capacity development activities as summarized in annex 7. The initial training provided by the Jordan Hashemite Fund for Human Development (JOHUD) to the PMU staff and beneficiaries on participatory planning was deemed of poor quality, so the project contracted CARE International at a later stage to perform a series of training sessions (in which 260 beneficiaries were involved). Project staff, technical staff and beneficiaries were then trained on participatory concept and techniques of rangeland rehabilitation and management, water harvesting and animal health. The project also trained 200 women in milk processing. Study tours with herders to see similar IFAD projects in Morocco and Syria were found particularly useful. The performance of CARE was found satisfactory but the mission could not find trace of any assessment of the impact of the training sessions, in particular on the constitution of the RMGs and the elaboration of the rangeland management plans.
24. There were delays and difficulties in site selection<sup>8</sup> and in the formation (in 2000) of the rangeland management groups. Five pilot areas were chosen from a list of 15 possible sites. A desk assessment of certain technical parameters was used in the selection of the first two project sites. This top-down approach proved to be problematic in the Mreigha site (South Badia) where there were unresolved usufruct issues with the community.<sup>9</sup> It was more participatory in other sites but was not inclusive either as it was based on discussions with the clan chief (Sheikh) and other top figures in the community, e.g. at the Menshiat El Ghieth site (North-East Badia) as explained by beneficiaries. However, the delivery process was accelerated after the 2002 reformulation mission, which led to finalizing the selection of the five pilot sites (including the replacement of the Mreigha site) and to the formation of the five RMGs (four with legal status involving a total of 823 herder families in 2006 according to the PCR).
25. These RMGs were constituted in each pilot site from existing community-based cooperatives or associations. The mission could not find sufficient information on the process followed in identifying and selecting the members of the Groups. Neither was it possible to confirm the status of each RMG at project closure<sup>10</sup> or the number of cooperative members during project life. However, based on discussions with herders in Ar Ruwayshid, Rokban, Shreif and Hussayniah, it is evident that a

<sup>8</sup> Dates for site selection are as follows: Mreigha and Menshiat El Ghieth 1999; Shreif and Rokban in 2001; Touana and Hussayniah/Hashimiyah in 2003.

<sup>9</sup> Even the visit of top-level officials did not lead to achieving a consensus among the different sub-tribes.

<sup>10</sup> According to PCR, there were four legally registered RMGs at Hussayniah & Hashimiyah, Shreif, Rokban and Menshiat El Ghieth pilot sites and one informal RMG at Touana.

significant number of herders in the project sites are not members of the cooperatives (and therefore were not members of the RMGs). The information gathered by the PPA team (table 2) provides some idea of the membership in each area where the pilot sites were chosen.

Table 2

**Number of herders, members of cooperatives and compensation beneficiaries**

<i>Site</i>	<i>Number of herders</i>	<i>Number of members in the cooperatives</i>	<i>Number of herders who received compensation</i>
Ghieth	228 (2008 figure)	62	42
Rokban		250	50
Shreif	130	400 (mostly non herders)	75
Hussayniah/ Hashimyah		258	159
Touana	290 (2008 figure)	n.a.	n.a.

Source: PPA evaluation team (2011) from data provided by MOA and FDAs.

26. None of the rangeland management plans were elaborated. The only planned actions implemented related to the management of the rested areas (see Implementation of rangeland plans below).
27. **Information and environmental awareness.** This component was the main contribution of the Project at the national level. The idea was to support the newly established Directorate of Rangeland Management (DRM) with the capacity to inform policy makers, researchers and strategists on rangeland issues by creating a Pastoral Resource Information and Monitoring and Evaluation (PRIME) unit.<sup>11</sup> The unit made good progress and provided valuable information to the planners and the policy makers on the rangelands. PRIME produced a good data base (including for climate) and maps for each pilot area, developed land capability plans and vegetation maps, and demonstrated to be an excellent platform for planning comprehensive actions. The Directorate was strengthened by the creation of PRIME and was involved in preparing the 2001 national strategy for rangeland development, the 2002 national strategy for agricultural development, and the 2002 temporary agriculture law.
28. However, the planned socio-economic and environmental studies were produced in 2004, well behind the schedule and very close to the closure of the project, a fact that cancelled the benefits from these studies. Also some of the expected functions such as the production of predictive and early warning information were not achieved. A major deficiency of PRIME was the lack of incentives to retain the trained staff. At project closure the unit was lacking the backup strategy needed to replace and upgrade the equipment and software, and incentives to keep its trained staff that progressively all left the unit.
29. **Implementation of rangeland management plans.** The component included the initiation and periodic revision of the rangeland management plans, as well as range improvement and water management works in selected grazing areas in each pilot site. The physical progress in the range improvement activities was low for shrub planting (29%) and modest (60%) for reseeding when compared to the 100% achievement in reaching the water harvesting and management targets: 11 hafirs<sup>12</sup>, 10 cisterns, 20 km of soil and water conservation works, 10 km of water spreading structures (annex 7).

<sup>11</sup> IFAD funding was complemented by an FAO grant that equipped the PRIME unit with the necessary hardware and software including GIS, mapping and spatial analysis.

<sup>12</sup> A hafir is a reservoir for catching flood water or retaining rain water.



30. In spite of replacing the Mreigha site by another location, the target of selecting five pilot areas with a total area of 45,000 ha was met as detailed in annex 7. The mission cannot confirm however the extent of achievement for the related planned outputs mentioned in the project completion report. In particular, based on our observations and discussions with herders and local governments officials and in the absence of available M&E data from the project at the time of the mission, the situation today is as follows: (i) only Menshiat El Ghieth and Rokban sites are performing water resource development, fodder shrub planting and reseeding, and – occasionally – the planned biannual resting and the controlled 3 to 4 weeks biennial grazing plans; (ii) the overgrazed Shreif site, except for the small range improvement area (350 ha), is not protected as planned in spite of the presence of official guards; (iii) there are some resting and very limited restored areas in the Hussayniah Site. Based on the above, the rested areas in total are likely to be close to 20,000 ha, less than half of the target figure.
31. Despite progress achieved in resting and developing two of the five pilot sites (Menshiat El Ghieth and Rokban), the rangeland management plans were never designed nor implemented. Based on interviews in North-East Badia and Shreif, none of the rangeland management groups were awarded the responsibility to manage the rested areas, and management and guarding of the pilot sites have become the responsibility of FDAs following project closure.
32. The procurement and distribution of barley grain met the planned project reformulation target. However, there is no evidence that it acted as an incentive for resting.<sup>13</sup>
33. **Project management.** As explained above, the project management unit was relocated from Ar Ruwayshid to Amman four years after the project start, in response to continued requests of IFAD backstopping missions. This situation affected project implementation in a decisive way. The Ar Ruwayshid site was overstaffed with previous Al-Hamad project employees, while several project positions were filled with delays, such as the socio-economist position filled in the fifth year of implementation.
34. Project management was weak and confusing during these four years, with the project manager and most of project staff based in Ar Ruwayshid, the PRIME in Amman and little involvement from the Directorate of Rangeland. This created disparities between project activities in North-East and South Badia. Also, the fact that the monitoring and evaluation function was located in Amman while the PMU was in the North-East reduced the ability to align this key function with project activities as originally planned. This is illustrated by the delay in conducting the socio-economic survey for the project sites undertaken by PRIME and evidence that the survey lacked indicators of direct relevance to working with the beneficiaries (such as the wealth stratification within the RMGs). The project also suffered in its first years from time-consuming procedures related to expenditures modalities and processing (e.g. financial control and restrictions on study tours).
35. The situation improved with the relocation and the appointment of a new project director, even though the emphasis was given to physical works to accelerate implementation while lesser efforts were dedicated to implementing community-based activities, such as the elaboration of the rangeland management plans. The project invested significantly in staff capacity and training. Master degrees, mid-

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<sup>13</sup> The amount of barley compensation sufficient to effectively commit herders to rest one ha in two successive years was estimated at reformulation as 100 kg. Accordingly, if resting of the total area targeted for destocking was achieved as reported in the PCR, the amount of barley incentive distributed would have been 4,500 tons assuming that all users will commit to refrain from introducing their stock in the all of the five pilot areas (45,000 ha) for the estimated compensation period (2 to 4 weeks). However, it was reported that only 1,350 tonnes were distributed to compensate herders for not grazing 15 to 60 days in two years. Furthermore, the number of herders who received compensation was less than those claimed to be members of the cooperatives (see table 1 above).

term and short-term courses and international study tours were undertaken to train technical and project staff.

#### **Key points**

- Project achieved part of its planned outputs (PRIME unit, water works, training, some range rehabilitation);
- Outputs related to the rangeland management groups and plans were poorly or not achieved;
- Difficulties in implementation were mainly due to management issues during the first 4 years (e.g. PMU location, project staffing, site selection and regional imbalances);
- Implementation rate accelerated during the last two and a half years especially for the physical achievements.

### **III. Review of findings by criterion**

#### **A. Project performance**

##### **Relevance**

36. The project objectives were relevant to the policies and strategies of the Government of Jordan for rural poverty reduction, in particular its strategy to promote local self-reliance, and to support small and disadvantaged farmers through livestock productivity increase and environment preservation and conservation of natural resources. The objectives were also aligned with IFAD's 2000 Country Strategic Opportunities Programme (COSOP), particularly as it strongly relates rural poverty to environmental degradation. The design of the project took into consideration IFAD's strategy in Jordan that aimed to empower project beneficiaries by enhancing their capacity to protect the environment and make more profitable use of the land and water resources. The objectives were also aligned with IFAD's COSOP focus on public institutional building to better serve the needs of disadvantaged groups – in this case for the newly created Directorate of Rangeland Management.
37. The project was designed in a coherent manner, addressing the national and local problems facing the Badia in Jordan. The project rightly recognized that the global structure of the rangelands had to be addressed in order to preserve and rehabilitate the rangeland. A comprehensive multi-level approach was indeed needed, combining a programme approach (understanding the status of the rangeland resource and supporting the government in defining and implementing policies) with a local site-specific project approach (enabling rangeland users to establish sustainable mechanisms for the rehabilitation and long-term development of their rangelands). The attention given to central management, coordination and monitoring of activities and outcomes in the Ministry of Agriculture was justified by the wide geographic coverage, as was the use of local and regional level agencies for implementation of activities at pilot sites.
38. Nationally the project aimed to strengthen the capacities of the relevant public institutions to generate the information and knowledge needed in developing strategies and policies for sustainable improvement and use of the rangeland resources. The local level activities aimed to adopt best practices, technologies and innovations for the rehabilitation and improvement of the rangeland feed resources. These included participatory resting, rangeland improvement through shrub planting and reseeding, and water harvesting and management technologies. The technical package of rangeland resting, planting of fodder shrubs<sup>14</sup> and reseeding,

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<sup>14</sup> The planting of fodder shrubs, though more costly than other techniques, was justified in the appraisal by the need to restore plant biomass to the optimum before implementing less costly conservation or development interventions.

and water harvesting were found suited to the environment conditions and land forms at the pilot sites.

39. Following difficulties in project implementation as evidenced by IFAD backstopping missions and mid-term review reports, the project was reformulated in 2002. The reformulation rightly aimed at addressing the recurrent drought issue as well as the impact of rested areas on the livelihood of small herders. It gave emphasis to implementing very well tested water and range improvement interventions and introduced a barley compensation scheme for herders.
40. The project design seems however to have underestimated a few key challenges, both at the initial design and at reformulation. First, the complexity of site selection was not sufficiently contemplated, in particular the land tenure issues and the need to combine a participatory approach with the right soil and water conditions. For example, this led to the closure of the Mreigha site and the selection of the Hussayniah/Hashimyah sites despite their low potential. Secondly, there was no clear strategy to ensure the involvement of the majority of the community members – including the poorest herders – and their future capacity to introduce and manage the interventions. The size of the rested areas was small to justify organizing the community through a fully participatory approach. The value of the barley compensation was minimal compared to the benefits from grazing of rested sites to warrant any community consensus.<sup>15</sup> Thirdly, the logical framework did not clearly articulate the linkages between output, outcomes and impact. These challenges could have been addressed early on during implementation at pilot sites to possibly suggest policy adaptation where needed (e.g. on land tenure).
41. There was some cooperation with a few projects but possible synergies with and lessons learned from several other projects do not seem to have taken place. The IFAD-supported Agricultural Resources Management Project – ARMP I – (and currently phase 2) contributed to infrastructure development (water harvesting) and training and a range management project from the Canadian International Development Agency was involved in the early training and institution-building activities of the NPRRD. However, the closing of the Al-Hamad project, an important rangeland project in one of the two first NPRRD sites, was overlooked at design level and created the series of issues described above. There was no cooperation of the project with other related projects, such as the Food and Agriculture Organization of the United Nations/United Nations Development Programme range improvement project in Ma'an (Ma'adaba); the Jordan component (from 1993) of the IFAD-supported Mashreq and Maghreb regional grant (the source of community planning approach adopted by the IFAD-supported Morocco Oriental project); and the IFAD supported Water Benchmarks that contributed to several models of water harvesting and water conservation.
42. In summary, the project provided a relevant two-pronged institutional and community based participatory approach. Many of the assumptions remained valid during most of the life of the project, with the latter adapting to emerging difficulties as well as stringent drought conditions through the reformulation exercise. However, the project missed an exceptional opportunity of enhancing the relevance of well thought-out concepts by not foreseeing, even after reformulation, some of the key challenges in implementing the above approach and by not taking timely the corrective measures suggested repeatedly in IFAD backstopping mission reports. The rating of relevance is moderately satisfactory (4), slightly lower than Programme Management Department (PMD)'s own rating (5).

### **Effectiveness**

43. The analysis of effectiveness is provided below mainly by objective. Since the project design and management was defined by component, this analysis is also

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<sup>15</sup> In fact, the Government is now developing under the Badia Restoration Program a major compensation scheme whereby herders will be provided with one full year of barley compensation for their animals.

based on the correspondence between objectives and components. Few quantitative targets, other than those for physical outputs linked to rangeland rehabilitation, were defined. The analysis is therefore mainly qualitative for most aspects, supported by both qualitative as well as some quantitative information gathered during the evaluation mission (including data collection, visits and direct observation, and meetings with relevant stakeholders and key informants).

44. Objectives 1, 2 and 3: *(1) provide policy makers with reliable and updated information on the current status of rangeland resources; (2) develop a national pastoral resources assessment monitoring system for the rangeland; (3) enhance environmental awareness in the utilization of rangeland resources.* These three objectives were implemented under component 2 – information and environmental awareness. Regarding objectives 1 and 2, the loan was approved with the purpose of supporting the newly created Directorate of Rangelands Management and the establishment of a Pastoral Resources Information Monitoring and Evaluation (PRIME) unit. PRIME provided reliable information on the rangelands. It produced – albeit with delays – guidelines for monitoring and evaluating the national rangeland resource, a livestock inventory and a topographical survey for the pilot sites. According to the PCR and key informants, PRIME was functional during the project life and indeed provided valuable physical information on the rangelands (data base and mapping, including for the pilot areas) and a platform for planning comprehensive interventions.
45. The project also contributed to the elaboration in 2001 and 2002 of key policy documents regulating rangeland protection, development and use, such as the rangeland and agriculture development strategies and the 2002 agriculture law. As indicated by project staff, the project was however not involved in the development of a draft land tenure law (contrary to what was stated in the PCR).
46. The socio-economic and environmental baseline studies for the pilot sites were conducted only in 2004, thereby missing the main objective of providing a start-up base for subsequent surveys and studies. The belated socio-economic study was carried out as if designed for project inception rather than assessing impact of the project on the beneficiaries after six years of implementation. Similar delays apply to the planned physical and climatic survey. Regarding objective 3, general environmental awareness seems to have been limited to a few brochures and posters.
47. Objective 4: *To develop methods of participatory planning with local communities for rehabilitation and management of grazing resources.* This objective corresponds to component 1 – participatory planning process. As explained above when discussing project implementation, the project encountered serious management difficulties in its first four years that impacted negatively on its ability to implement the participatory approach to planning in a timely and effective manner. The project management unit was perceived as using a top-down approach as stated in the monitoring reports and confirmed by interviews with beneficiaries and technical staff. An effort was made to improve and re-orient the participatory approach training by involving CARE International.<sup>16</sup> However, the overall objective of training the communities to develop their own rangeland management plans was not achieved. A missed opportunity was that CARE's involvement, contrary to what was done in other projects, was limited to the training and not extended to a follow-up planning phase with the communities. The project apparently did not build on what was learned from the participatory training and no rangeland management plans were elaborated. In addition to project management issues, this was also probably due to issues linked to land tenure and usufruct rights – that led to the closure of the Mreigha site and threatened progress in Shreif – as well as to the extended droughts in Shreif and Hussayniah/Hashimyah.

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<sup>16</sup> All training and capacity building activities and dates of implementation are presented in annex 7.

48. As mentioned, the PPA team has serious doubts on the effectiveness of the rangeland management groups and cooperatives. For example, according to estimates from the Ministry of Agriculture, the number of herders in Menshiat El Ghieth is about 228 whereas the members of the cooperatives are only 62. Based on discussions with herders in Ar Ruwayshid, Rokban, Shreif and Hussayniah, it is evident that a significant number of herders in the project sites are not members of the cooperatives. It is probable that the less influential members of the community have been de facto excluded from the project as consultations have been limited to the tribal chiefs (e.g. at the Menshiat El Ghieth site). Overall, the absence of rangeland management plans and the doubts raised as to the usefulness of the rangeland management groups point out to the ineffectiveness of the participatory approach.
49. Objective 5: *To assist beneficiaries and target communities directly in the implementation and periodic revision of rangeland management plans.* This objective relates to component 3 – implementation of the rangeland management plans. In the absence of the expected rangeland management plans and in view of the difficulties encountered in project management, the project reformulation in 2002 concentrated on speeding up loan disbursement by implementing the planned tested technical and physical activities.
50. Significant progress was achieved in the delivery of the physical outputs for the rehabilitation of the rangelands in the last few years:<sup>17</sup> resting (450,000 dunum<sup>18</sup> against 500,000 planned), planting fodder shrubs (14,650 du against 50,000 du), reseeding areas (31,600 du against 50,000 du). The performance of the five sites varied substantially. The two sites in the North-East Badia demonstrated positive responses to range improvement and resting. For example, resting and range improvement added significantly to the value of the range in the rested areas which were able – according to reports from the field directorate of agriculture (FDA) – to hold 50,000 heads of animals for 30 days in 2005 and 2006. Similarly positive results were achieved in Rokban as confirmed by herders and FDA officials as well as the range use receipts. On the other hand, the rangelands in the South Badia sites were not rested, partly because of the lengthy drought and the severely degraded range resources. For example, out of the 50,000 du marked for improvement and resting at the Shreif site in South Badia, only 3,650 du are currently improved and guarded by the FDA. Grazing was never controlled in the remaining area, which is currently totally degraded.
51. The project achieved the reformulation targets for the construction of water harvesting and conservation structures (e.g. 11 hafirs and 10 cisterns were constructed as planned), and for maintenance.<sup>19</sup> There were 20 km of soil and water conservation works, 10 km of water spreading structure and 62,500 tree basins established. The mission confirms the usefulness of these structures in providing livestock drinking water to the herders (many commute and haul water by trucks) and irrigation water for the establishment of the fodder shrubs.
52. There were however no rangeland management plans to support these successful physical structures as originally planned. The 2002 reformulation did not consider measures to enhance the implementation of an effective participatory approach for rangeland rehabilitation maintenance and its sustainable use so this objective was not achieved. The communities were only assisted through the water conservation works and the limited rested areas in two of the five project sites.
53. The relative low effectiveness of the project in achieving its objectives was caused by external and internal factors. The external factors included the severe drought in the first three years and the confusing land tenure regime.<sup>20</sup> However, as explained

<sup>17</sup> The physical achievements of rangeland improvement and water harvesting are listed in annex 7.

<sup>18</sup> A dunum = 0.1 ha.

<sup>19</sup> Only one hafir was found poorly maintained in Aishayeh (as a replacement for the Mreigha site).

<sup>20</sup> Source: IFAD Report on NPRRD [http://www.ifad.org/Irkm/region/pn/jo\\_468.htm](http://www.ifad.org/Irkm/region/pn/jo_468.htm).



above, a major obstacle to the project success was the weak management performance in the first four years reflected e.g. in insufficient start-up arrangements and capacity-building, inadequate monitoring and evaluation and a low disbursement rate (65%) at project closure. The poor performance of the project in building its own monitoring and evaluation system at the pilot site levels is in contrast to the project's ability to establish PRIME at the national level. The above weaknesses are illustrated by the low project disbursement in training and studies (23% of planned allocation for this category) and the delays in carrying out the socio-economic studies (and as a result missing most of the expected benefits, especially as no action was taken to change the nature of the studies in view of such delays).

54. In summary, the activities at the institutional level were generally achieved as planned except for the monitoring and evaluation system and the socio-economic studies, but the core social and organizational aspects needed more time and could only be achieved in a very limited way, with no rangeland management plans and weak rangeland management groups. In addition, implementation of physical infrastructure of water harvesting and technical packages for rangeland restoration was accelerated in the second part of the project, thus meeting some of the targets but with limited success in the case of restoration. The project's effectiveness is assessed moderately unsatisfactory (3), lower than PMD's rating (5).

### **Efficiency**

55. There was no economic analysis at appraisal, or estimation of benefits and costs after project closure to perform such analysis. The PCR estimated a 12.4% internal rate of return on the rangeland investment over 20 years. The present PPA could not access the data on the costs of the shrubs, seeds and other operations to verify the above estimate since the M&E was dysfunctional throughout the project life. It can only confirm the benefits to the herders from savings in supplementary feeding when admitted to graze Menshiat El Ghieth pilot area after two years resting.<sup>21</sup> Such benefit is also expected in Rokban. But it is unlikely that the much degraded overgrazed South Badia sites could generate any benefit from resting, and resting seems to have been very limited in these sites (e.g. in Shreif). There is also significant return from investment in the water conservation and harvesting sites. Several herders met in both North-East Badia and South Badia either walk their animals or truckload water from the Hafirs, dams and deep-bore wells. But these benefits should be balanced with the fact that only a small number of herders seems to have benefited from the programme both for the rested areas and the feed incentive.
56. The time from approval to effectiveness was 9 months compared to 7.2 months on average for the cumulative IFAD portfolio of Jordan projects. However, the project had only disbursed 17% of the loan after three years and its duration had to be extended for further two years and a half. This last figure represents a time overrun of 58% compared to a 43% average overrun for the cumulative portfolio of all IFAD closed projects in Jordan. Implementation was also slow, mainly because of an inefficient and ineffective PMU. This was addressed after four years by a loan extension, reformulation and changing the project manager, which enabled to accelerate in the last three years the implementation of the technical and infrastructural packages (destocking, forage shrub planting and reseedling in the rested areas).
57. The proportion of project management costs in relation to total project costs was relatively high (17%) compared with the average for the five most recent IFAD projects in Jordan (7.5%), even though the overall project costs (US\$9.0 million) were much lower than the average (US\$23.4 million) (see table 1). Smaller projects tend to have a larger proportion of costs allocated to project management,

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<sup>21</sup> See table 4 below.

but in this case delays in project implementation inflated project management costs (see table 3 below).

Table 3

**Status of IFAD loan funds by category (4 July 2006) expressed in 1,000 SDR**

<i>Category description</i>	<i>Original loan allocations</i>	<i>Re-formulated loan allocation</i>	<i>Disbursed</i>	<i>% Disbursement of original loan</i>
Vehicles and equipment	150	177.5	187.9	106
Training and studies	195	195	044.4	23
Technical assistance	105	265	125.3	47
Agricultural material inputs for rangelands	1 800	1 250	1 023	82
Civil works	-	700	375.0	54
Incentive allowances	160	-	-	-
Operating costs (excluding salaries)	160	260	128.2	49
Unallocated	330	052.5	0	-
<b>Total SRD</b>	<b>2 900</b>	<b>2 900<sup>a</sup></b>	<b>1 884.8</b>	<b>65</b>

<sup>a</sup> Total loan was reduced to SDR 2,400 in 2004. Based on this figure, the percentage of disbursement would increase to 78%.

Source: Project Completion Report, January 2007.

58. The PCR rated project efficiency as "quite satisfactory" stating that 74% of the project benefits and delivery costs were spent on range rehabilitation and development that directly benefited the target groups. In absence of reliable information on the numbers of beneficiaries, the team cannot validate this assessment which is only based on the improvement in disbursement after reformulation and not on the real benefits gained by the communities (please see below the section on impact). In view of all the above the efficiency of the project is questionable and is rated moderately unsatisfactory (3), slightly lower than PMD's own rating (4).

## **B. Rural poverty impact**

59. The project did not develop a platform of credible and timely information and data. Even the late socio-economic studies mentioned above did not relate to the project (including only the herders available for interview). The PPA team could not access relevant or reliable data, such as the number of the poorest herders among the beneficiaries or the project life-time trends in the number of herders and flock size. It therefore relied heavily on qualitative evidence from desk reviews, site visits and interviews with technical staff and herders, and developed some quantitative estimates as discussed above (table 2) and in table 4.
60. This assessment has serious doubts about the validity of the available data, in particular the number of members in the cooperatives (823 according to the PCR, see section above on implementation results) and the number of herders who benefited from the project interventions. The data in the PCR is based on the number of registered herders and not the actual number of project beneficiaries. The interviews with herders, cooperative members and FDA staff in Ar Ruwayshid, Rokban, Shreif and Hussayniah indicate that a significant number of herders in the project areas are not members in the cooperatives, and as such did not probably benefit from grazing in the rested areas (in North-East Badia) nor the barley compensation. Random samples taken from the free permits to use the improved pilot sites in Menshiat El Ghieth and Rokban show that access to the rested areas was mostly provided to the owners of larger herds (average 665 and 892 heads respectively, as detailed in table 4). In addition and based on the above interviews and discussions with key informants, the members of the rangeland management

groups were mostly the tribal leaders and wealthier herders, so the poorest herders were probably not the main beneficiaries. Based on the above collected data and in the absence of conclusive evidence from the socio-economic surveys, there is a high probability that the appraisal target of directly benefiting 3,650 herding families living in the five sites – of which 50% own less than 100 animals – was not reached.

Table 4

**Free grazing permits for use of improved sites in North-East Badia**

<i>Menshiat El Ghieth (Ar Ruwayshid) pilot site</i> Herder	<i>Date of permit<sup>a</sup></i>	<i>Number of animals</i>
1	10 Aug – 19 Aug 2005	1 000
2	10 Aug – 24 Aug 2005	800
3	10 Aug – 10 Sep 2005	150
4	11 Aug – 10 Sep 2005	500
5	11 Aug – 10 Sep 2005	50
6	11 Aug – 10 Sep 2005	500
7	10 Aug – 10 Sep 2005	250
8	14 Aug – 10 Sep 2005	600
9	11 Sep – 10 Oct 2006	1 500
10	01 Aug – 31 Aug 2006	600
11	01 Aug – 31 Aug 2006	1 000
12	01 Aug – 31 Aug 2006	1 000
13	01 Aug – 31 Aug 2006	700
<b>Average (total)</b>	<b>27 days (355 days)</b>	<b>665 (8 650)</b>
<b>Savings per herder in 2 years of resting at 1 kg/animal/day and 185 JOD/tonne = 3 322 JOD<sup>b</sup></b>		
<i>Rokban ( Al-Hamad) pilot site</i> Herder		
1	11 Sep – 10 Oct 2006	1 700
2	11 Sep – 10 Oct 2006	400
3	11 Sep – 10 Oct 2006	(number undeclared)
4	11 Sep – 10 Oct 2006	500
5	11 Sep – 10 Oct 2006	850
6	11 Sep – 10 Oct 2006	400
7	11 Sep – 10 Oct 2006	1500
<b>Average of 5 (total)</b>	<b>30 days</b>	<b>892 (total = 5 350)</b>
<b>Savings per herder in 2 years of resting at 1 kg/animal/day and 185 JOD/tonne = 4 951 JOD<sup>c</sup></b>		

<sup>a</sup> Permits randomly selected from several permit books.

<sup>b</sup> 665 animals per herder x 27 grazing days x 1 kg barley feed per animal per day JOD185/tonne/1000 kg = JOD 3,322.

<sup>c</sup> 892 animals per herder x 30 grazing days x 1 kg barley feed per animal per day JOD185/tonne/1000 kg = JOD 4,951.

Source: PPA mission from data provided by MOA and FDAs, 2011.

61. **Household income and assets.** The project planned increased production and incomes for the communities based on increased production value of their sheep, and a subsistence-level income for the small livestock owners. The positive assessment of impact reported in the PCR was only based on interviews with beneficiaries who anticipated benefits from the range and water improvement interventions. The present evaluation cannot confirm such assessment as the project benefits were too limited and did not seem to reach the smaller herders (as explained above).
62. The only possible project impact on income would stem from savings on supplementary feeding linked to grazing in rested areas and from the barley compensation decided at project reformulation. Based on interviews with herders and technical staff in four sites and the review of the grazing permit forms, only two sites were opened to grazing during project life (Menshiat El Ghieth and Rokban in North-East Badia). Shreif, Touana and Hussayniah/Hashimyah remain severely degraded for being more drought-affected and not rested. The two sites were

mainly available to the owners of large numbers of animals (on average 665 and 892 flock per household). As shown in table 4, there were moderate savings on supplementary feeding from grazing the rested areas in Menshiat El Ghieth (10 September 2005, and 1 to 31 August 2006) and Rokban (opened to grazing from 11 September – 10 October 2006), namely roughly between JOD 3,000 and 5,000 per herder. The amount of barley compensation was small (1,350 tonnes) and only provided once before project closure. The number of herders who received compensation was less than the estimated number of members of the cooperatives (as shown in table 2).

Table 5  
**Number of sheep and goats in four project locations**

Site	2003	2004	2008	2009	2010	2011
<b>Menshiat El Ghieth</b>	28 670	28 634	56 669	51 434	45 348	62 797
<b>Shreif</b>	11 718	11 508				15 673
<b>Hussayniah</b>			38 683	32 678	37 801	22 987
<b>Touana</b>			56 246	56 836	57 326	

Sources: PMU progress report, 2003; Socio-economic survey, 2004.

63. The partial available data in table 5 above on the evolution of the overall number of livestock in four project sites are inconclusive in terms of assessing effects on income and assets, but as explained above the project limited benefits did not reach the poorest herders. It can be estimated that the poorest herders in the Badia own less than 100 animals, the poor own about 200 (described in the Herders' profile below) while herders who own 300 animals or above are normally able to stand drought and barley feed supplement shocks (in terms of availability and prices) from the sale of lambs and goat kids. The rangelands were able to provide during the project life at best 90 days of grazing and normally 30 days or less, which does not relieve the small holders the burden of spending about JOD 3000 to JOD 6000 extra in animal feed each year.<sup>22</sup> Being at the bottom of the social and economic strata, the poorest herders lacked the opportunity to access the rested areas, receive barley compensation or have means of transporting water to their animals. In the absence of alternative income generating activities, several herders interviewed by the mission went out of herding business because they could not afford purchasing barley feeds, especially during the lengthy drought years.

Box 1

#### **Herders' profile**

An average small to medium-sized Badia family solely dependent on herding:

- Raises 100 to 300 sheep and goats (15-20% goats);
- Grazes animals from zero to max 3 months in good season;
- Purchases a limited quota of subsidized barley (180 JD/Kg) and bran (87JD/kg);
- Sells 60 to 240 lambs and goats kids for feeding and living expenses.

The owner of 100 heads is vulnerable to losing all assets after two years of consecutive droughts; the owner of 200 is vulnerable to barley feed market fluctuations. Most of small livestock keepers who succumbed to the ever increasing feed prices, living expenses and to the reduction of the purchasing power of the JOD are among this category.

Source: PPA mission interviews with 11 herders from Menshiat El Ghieth & Rokban, five from Shreif, two from Ma'an and 5 from Hussayniah.

<sup>22</sup> The estimates are based on 18 to 36 tonnes of barley grain required to feed a 50 sheep and goats flock with daily uptake of 1 to 2 kg.

64. The most compelling reason for the limited impact of the project was poor implementation, rather than the time shortage mentioned in the PCR. The more successful Menshiat El Ghieth site has a capacity to rest 50,000 du to allow grazing of 50,000 animals for 30 days each two years but mainly benefited well-off herders. All of South Badia under performed because of the imbalance in project management that concentrated in the North-East Badia, and because of severe drought years. For example, the poorly managed Shreif site is severely degraded except for a small guarded area (350 ha) and the Hussayniah sites have a very low potential.
65. In summary, the benefits of the project were very limited, with low barley feed savings from grazing in two rested areas and no evidence of increased productivity of animals. In addition, these limited benefits were directed towards the better-off herders (while small herders were selling out their animal stocks). The overall rating for this sub-category is estimated as unsatisfactory (2), lower than PMD's own rating (4,5).
66. **Human and social capital, and empowerment.** The project aimed at developing rangeland management plans that would allow the Badia herders to manage the rangeland in a sustainable and productive way. The rangeland management groups (RMGs) were expected to shoulder such responsibility following training of the communities on participatory approach. The PPA mission confirms from its field visits and discussions that these plans were never elaborated. The only planned intervention was the management of the rested areas by the communities in Menshiat and Rokban. The formation of the rangeland management groups was neither successful. First, their constitution took a long time (two in the first year, another two after three years and one after the project reformulation). Moreover, the groups were not full representatives of the communities as they were mostly composed of the wealthy (as explained above), and especially in Shreif and Hussayniah, the memberships of the related cooperatives included a combination of herders and settled farmers. They eventually seized to function after the project closure and all resting, range improvement and management of the protected sites and the water points became the responsibility of the FDAs.
67. The project therefore did not succeed in effectively supporting grass-root organizations. On the one hand, it relied on existing cooperatives run by the better-off herders. The poorer herders interviewed by the PPA mission confirmed that they were not part of the cooperative (as shown in table 2). On the other hand, the herders' community in the Badia is mainly composed of nomadic herders and the project may have underestimated the difficulties of engaging them in grass-root organizations.
68. Some empowerment occurred through the training benefits extended to the communities in participatory approach, especially with the support of CARE International, and through visiting workshops in Tunisia and Syria. The technical and professional staff also benefited from workshops, short and medium courses and high degree scholarships, and several of them have apparently continued working for public institutions (see institutional impact above). The courses included technical topics of importance to livestock owners (rangeland rehabilitation, water harvesting, animal health and milk processing). It is however difficult to measure the extent of empowerment achieved especially since the communities no longer have any management role in the areas. Empowerment efforts do not however seem to have been sustained. According to PCR and despite some conflicts in Shreif and Mreigha, the communities have shown some empowerment linked to their capacity to express their views and negotiate with the authorities. This behaviour is however basic to the traditional kinship relationships of the herding communities in Jordan and cannot be attributed to the project interventions.
69. In summary, the project contributed to some empowerment and capacity-building through training but the community management of the pilot sites was very limited

and is now under full control of the Government. Overall, the project was not able to sustainably contribute to the organization and empowerment of the communities. The overall rating of the impact on human and social capital, and empowerment is estimated as moderately unsatisfactory (3), lower than PMD's own rating (4,5).

70. **Agricultural productivity and food security.** The project was appraised as having elements that would substantially contribute to the food security of the Badia herders through increased production and incomes (see above regarding impact on household assets and income). After reformulation, the project concentrated in implementing fast track water improvement and management interventions. Despite limited community involvement, the PPA team confirms the positive impact of the water management and conservation schemes in all pilot sites. Most structures are well maintained by the FDA and water is being hauled by the trucks of capable herders to water the animals. There is evidence that other herders could access these water points but in a less flexible and accessible manner (e.g. only if in the vicinity).
71. It is therefore possible to confirm the positive though limited year-round impact of the water conservation and management schemes, although the benefits are probably mainly limited to a few beneficiaries (with trucks). In the absence of any quantitative evidence, this criterion is not rated.
72. **Environment and natural resources.** The project planned to develop through community participatory planning approaches, up-scalable best-bet practices and methodologies for conservation, protection and improvement of the rangeland resource with introduction and maintenance of fodder shrubs and improved range vegetation in rested and protected pilot areas. The adoption of the range improvement packages was reasonably successful with fodder shrubs and reseeding of viable range vegetation accomplished in selected areas in each pilot site (60% of reseeding targets were met at project closure). It was also possible to manage two of the five pilot areas through protection and a biannual rotational grazing scheme (though only in North-East Badia and for two years – 2005 and 2006), and several water harvesting and management structures were built. As mentioned above under effectiveness, the results of the water conservation packages were positive in terms of water availability for animals. However, none of the interventions combined the required mix of watering, resting and other management approaches to ensure a sustainable and sizeable impact on the environment.
73. Such impact was indeed limited partly because the improved areas are very small. There are no detailed information from each site to assist in the verification but the mission observed for example in Shreif that only 3,650 du are improved out of the planned 20,000 du. Some difficulties were also encountered in implementing the technical packages, such as achieving an effective combination of resting and grazing techniques. As mentioned in IFAD's backstopping reports, there was a negative impact of too long resting in Shreif and Touana on range quality (increased woody vegetation, reduced diversity of the desirable range plants, and hardened soil cover) while recurrent droughts in Hussayniah stopped progress in implementing the planned activities. Also, in spite of the excellent water structures, water is not always available every year in all sites mainly due to droughts or weak flow of flash floods.
74. The Badia is indeed a mostly arid region with recurrent droughts and its vegetative cover has been degrading mainly as a consequence of climate change and overgrazing. The project did not achieve to reverse the situation on the ground, except for limited areas in only two sites (where the vegetation partly recovered following shrub planting and reseeding). Also, the fodder shrubs interventions did not include measures for coping with climate change effects (extreme temperature, extended droughts). The planted shrub species, although drought tolerant, were not developed specifically to meet climate change requirements such as low water



use and extreme heat tolerance. The project's shrub planting and its water improvement sites would have benefited from other existing projects in Jordan at the time that were addressing adaptation and mitigation of the impact of climate change on the rangelands and the water resources.<sup>23</sup>

75. The project also underperformed in implementing the social and human aspects of the physical interventions. The NPRRD was not the only project in Jordan that introduced rangeland conservation and rehabilitation approaches and its benefits would have been much more sustainable and longer-term if the project had aligned with other on-going activities<sup>24</sup> that sought to empower the herders (e.g. through alternative income generation activities). Community participation in the protection and use of the improved areas – which was at the heart of the environmental strategy of the project – was not achieved as all sites are now managed by the FDAs. In this regard, the mission observed the dismal condition of Shreif compared to the highly improved condition of Menshiat El Ghieth. The contrast is a manifestation of combined climatic and management reasons. Menshiat El Ghieth enjoyed reasonable good rainy seasons and well-managed resting and grazing operations. This is in contrast to poor management that converted most of the Shreif site to a severely degraded site.
76. In summary, even though there were some positive pilot-level achievements from the range and water improvement packages, substantial benefits for the rangelands were not obtained because of several internal and external factors. The improved and rested areas are small, leading to limited gains, and concentrated only in two of the five project sites. The recurrent drought years hindered progress in the South Badia site, especially Hussayniah. The introduced shrub species were not tested for coping with climate change and community participation for protection was not sustained. Shreif site is degraded in the absence of a mechanism that allows for resting and improving the area. The rating of the project impact on natural resources and the environment is moderately unsatisfactory (3), lower than PMD's rating (6).
77. **Institutions and policies.** The project's main contribution at the national level was the creation of the PRIME unit within the Directorate of Rangeland Management (DRM) with the aim to inform decision makers on the status of the rangelands and influence related policy. The main task of the unit was to provide policy and decision makers with reliable assessments of the rangelands resources and users through the use of well advanced ICT tools, thematic mapping and socio-economic surveys.
78. According to the project reports, PRIME had a demonstrated capacity to assist in strategic and local planning for site-specific and regional rehabilitation and development of the rangeland resources. The PPA mission, conducted six years after project closure, could however find no evidence of a functional PRIME unit in the Directorate of Rangeland Management. PRIME innovative tools were thus not sustained and the expected long-term benefit in institutional building was not obtained. One official was recently appointed to revive the unit and only a few documents made by PRIME are available as evidence of its past activities (i.e. the policy documents listed under effectiveness above). None of the data basis and GIS systems is functional today and no information on the current status of the rangelands could be made available from PRIME records. Following project closure most PRIME's functions and some human resources were partly transferred to the Hashemite Fund for Development of Jordan Badia through ad-hoc movements of staff after project closure.

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<sup>23</sup> The programme of the GEF and the United Nations Development Programme on "Conservation and Sustainable Use of Agro-biodiversity", implemented by ICARDA until 2005; the IFAD/AFESD supported Water Benchmarking Program; and the IFAD/AFESD Mashreq & Maghreb Programme would have assisted in developing the participatory approach and in training the herders in the preparation of action plans.

<sup>24</sup> Again the Mashreq & Maghreb Project from 1993 to present (three phases); the GEF Agro-Biodiversity project; and programmes from the Royal Society for the Conservation of Nature in the Badia.

79. The absence of most documents related to PRIME activities renders difficult any objective assessment of the support it provided to policy decision makers before project closure. Such support consisted in contributing to the preparation of various strategies, policies and laws on rangeland and agriculture. Based on reports the mission could access and interviews, the project does not seem to have influenced long-term policies for the rangelands nor larger policy issues such as land tenure, feeding subsidies or credit.
80. The main planned outcome of the project in terms of developing a sound and sustainable nation-wide framework for rangeland restoration and development did not happen. In addition and despite the significant support given to the Rangeland Directorate during the project life, this institution did not gain the high profile anticipated by the project. It is however foreseen that the Directorate will be one of the main implementers of the large Badia Recovery Program.
81. In view of the above the impact on institutions and policies is rated moderately unsatisfactory (3) (there is no PMD rating).
82. **Summary of overall impact.** In summary, the project benefits were limited, concerning very few sites and few households. The main reason is the project's failure to achieve the core objectives of developing approaches suited to improve rural livelihoods and enhance environmental well-being through community-based management. There is no evidence that the project contributed in a significant manner to rural poverty reduction or environmental rehabilitation, or that it influenced key policy decisions. The overall impact assessment of the NPRRD is moderately unsatisfactory (3), lower than PMD's own rating (5).

### **C. Other performance criteria**

83. **Sustainability.** Sustainability is discussed under three categories: institutional, environmental and organizational. Annex 8 summarizes the main indicators and issues linked to sustainability.
84. At the institutional level, the project conducted training programmes for the staff from the Ministry of Agriculture both in Amman and in the FDAs. The mission met several project staff who benefited from training and continue to work in rangeland-related activities. As explained above, the establishment of a functional PRIME was one of the very few successful achievements of the project, with a well-equipped unit and the training of the technical staff. Although there is now only one sole new staff at the Directorate of Rangeland Management trying to revive PRIME-related activities, two of PRIME key staff are currently employed by the Hashemite Fund for Development of Jordan Badia (a stronger parastatal institution) to maintain a data base and information centre aiming to retrieve and publish information and data on the Badia region to the benefit of all institutions. As mentioned under sustainability above, the Directorate of Rangeland Management is functioning and is planned to implement part of the Badia Recovery Program. The range improvement activities (water harvesting, shrub plantation and guarding of rested areas) in the five pilot sites are now undertaken by the Government (FDAs) as part of the overall national plan for the maintenance of 30 rested areas developed in Jordan over the last four decades. However, the PPA mission noted the deteriorated condition of the water holding structure (hafir) which was established in the Mreigha site by the project.
85. At the organizational level, the objective of developing a sustainable mechanism for community participation in range management was not achieved. There are no functioning rangeland management plans. Only the rangeland management groups in Menshiat El Ghieth and Rokban participated in the management of the rested areas before project closure and no RMGs are functional today. The lack of sustainability is evidenced by the fact that the government is controlling the management of the rested areas in four pilot sites. In Shreif, only the improved areas (365 ha) of the 5000 ha pilot site is guarded by the FDA while the remaining area is completely overgrazed. There was no exit strategy to allow the RMGs to

continue operating after project closure. The first obstacle to sustainability was the absence of a legal framework to allow the RMGs to manage the pilot areas after project closure, and to earn operational funds from issuing grazing permits. Also and as explained above, the existing cooperatives met by the mission are unlikely representatives of all community members and the poorer herders.

86. The thrust of the project was environmental. Implementation included activities aiming to reverse rangeland degradation, enhance the biodiversity of the range vegetation and re-establish the capacity of the range resources. Only the Menshiat El Ghieth and Rokban sites are operational and well maintained today through the routine functions of the FDA, with limited rested-cum-grazed areas and restored areas with shrubs. This is in contrast with the sites in South Badia that suffered from lengthy drought and poor management. The water structures are all functional (except for the one near Mreigha) and continuously used by mobile herders to water their animals. The evaluation mission could not find evidence of the effective existence of rangeland management groups or plans, and therefore of any significant environmental benefits.
87. In terms of the general sustainability of benefits and as explained above, the project had very limited achievements with savings on supplementary feeding for a few herders in two of the five project sites and water availability for animals at all sites for the mobile herders. These limited benefits are sustainable for the water structures (that require minimum maintenance) while the one-month grazing in the protected areas in two sites depend on the rainfall (so far, the areas have only been open twice, in 2005 and 2006).
88. However, despite these elements of sustainability in the technical packages and capacity-building at national level, the key element of rangeland management plans managed by the community did not materialize. Overall the project did not achieve its objective of developing replicable approaches and best practices developed through full participation of the communities that could be expanded to other areas. Therefore, the overall benefit stream expected from the project in terms of creating community capacities for sustainable rangeland improvement and management was not achieved. The rating for project sustainability is moderately unsatisfactory (3), lower than PMD's rating (5).
89. **Pro-poor innovation and scaling up.** The project was designed to address the local and national problems facing the Badia dwellers in Jordan. It aimed to achieve both environmental and socio-economic objectives through the sustainable improvement of the livelihoods of the herding families by restoring and improving the Badia range resources. Its design included a long-term approach with some innovative features and planned for a second phase dedicated to up-scaling. Such design rightly combined institutional building and policy formulation with grass-roots interventions at the pilot sites. A major innovation was to be the introduction of a participatory planning approach which was rather new in Jordan at the time.
90. However, these planned innovative approaches were not translated into practice. Originally formulated in three phases, the project metamorphosed at appraisal to be implemented over only two phases.<sup>25</sup> This led to move away from a holistic planning approach aiming at an incremental involvement of stakeholders to a top-down approach in practice. At the national level the project was innovative in creating a pastoral information monitoring unit (PRIME) capable of providing GIS and socio-economic survey based information to the policy makers on the status of the rangeland resources, but as mentioned above, the unit was not sustained.
91. At the local level, the project merely confirmed the validity of the technical packages for rangeland restoration and water management that were known from

<sup>25</sup> The project was initially formulated in three phases: precondition phase; rangeland recovery phase, and; rangeland development phase (source; IFAD Formulation Report No 0662-JO September 1993). The appraisal process decided for a pilot project (phase I) and a nation-wide programme (phase II).

past similar interventions and were not innovative per se. The implementation of the participatory approach and planning was limited so that no sustainable rangeland management and improvement practices could be put in place. Only few herders (mostly the better-off MRG members) were trained in participatory planning approach and the rangeland management groups originally conceived as important instruments for developing and modifying rangeland management plans are no longer functional.

92. Finally, the idea of building project implementation through close monitoring of the socio-economic circumstances and developing a learning approach leading to the preparation of a larger rehabilitation programme never materialised. Among other things, the M&E system was dysfunctional throughout project implementation.
93. As a consequence, there was no replication or scaling up of the above innovative approach as the project did not manage to achieve the above mentioned ambitious goals, mainly because of managerial and administrative problems. While it initially had all the innovative conditions to justify a subsequent phase as was done with a similar project in Syria<sup>26</sup> and as envisaged at project appraisal, the difficulties of implementation during the first years and the rush to produce the required outputs in the last two years deterred both IFAD and the Government from embarking into a larger programme as initially planned or convincing other potential interested parties to do so.<sup>27</sup> Also, the project failed to document and disseminate the limited achievements made in two of the rested areas and in water harvesting.
94. In summary, and as explained when discussing impact and sustainability above, the project could only generate partial results in technical aspects and could not develop replicable participatory approach models. The overall performance of NPRRD in terms of innovation, replication and scaling up is moderately unsatisfactory (3). (There is no PMD rating on innovation).<sup>28</sup>
95. **Gender equality and women's empowerment.** Gender equality and women's empowerment aspects were not translated into specific outputs and objectives in the project logical framework but expected project benefits for women in the pilot sites were specifically detailed in the project design<sup>29</sup> in terms of reduced workload, income-generation and literacy activities based on existing knowledge on the engagement of women in livestock production and processing activities. There was adequate information in Jordan on such engagement for instance from the Hamad Basin Study.<sup>30</sup>
96. Overall, the mission could find no evidence that the project developed any plans to mainstream or monitor gender issues, nor was there reference to overall gender dimensions in work plans and budgets, and in supervision and backstopping missions. The project did not produce gender disaggregated targets among the rangeland users or among those who benefited from training in the participatory approach. During the project life, the role of women was only taken into consideration on a very small scale, namely in small dairy processing facilities.
97. The PCR indicated that three milk-processing units were constructed and operated by beneficiaries. The PPA team found out that only the Ar Ruwayshid unit is operational. The other two milk processing facilities in Shreif and Hashimyah are not operational based on the mission direct observations and as confirmed by interviews. In total, only a handful of women benefitted from the project in the

<sup>26</sup> IFAD-supported Badia Rangelands Development Project.

<sup>27</sup> In addition, the Government's decision not to pursue the programme may have been linked to the important influx at the time of external grant funding allocated to Badia rangeland areas (e.g. the Badia Restoration Program – BRP). According to key informants, the limited results of the NPRRD could not be up-scaled into the BRP nor did the project contribute to the BRP design, unlike the Mashreq-Maghreb and Water Benchmark IFAD-supported grants.

<sup>28</sup> The PMD rating is only on scaling up.

<sup>29</sup> In paragraphs 53 and 55 of the IFAD President's report.

<sup>30</sup> Hamad basin was the site of the North-East Badia range improvement project which was operational until 1997.

Source: PRIME Socio-economic survey April 2004: The Hamad Basin Study, Human and Natural Resources. Volume 1. ACSAD 1983.

form of an income-generating activity from dairy products in good rainfall years. The project had no activities targeting illiteracy or the reduction of female workload. The Ar Ruwayshid woman cooperative has recently enhanced the limited capacity provided by the NPRRD by receiving new equipment, building a sheep fattening facility and developing a forage production farm with the support from the Ministry of Planning (MoPIC). This cooperative is however constituted of "urban" members from Ar Ruwayshid town without evidence of participation of the poor rural women in the area.

98. In the absence of any gender mainstreaming despite stated expected benefits for women and in view of only one small functional milk processing unit out of the three planned by the project, the overall rating of NPRRD performance on gender and women empowerment is estimated moderately unsatisfactory (3), which is a decrease from PMD's rating (5).

#### **D. Performance of partners**

99. IFAD rightly engaged in a planned innovative programme advocating for a much needed rehabilitation of a key region of Jordan for its contribution to national livestock production and long-term reduction of poverty. The programme design had an appropriate mix of institutional building and participatory approach at field level to ensure sustainability of results. In light of the many difficulties and delays encountered in project implementation, and although project supervision was performed by the Arab Fund for Economic and Social Development (AFESD), IFAD assumed its oversight role and fielded regular backstopping or supervision missions all along the project life and a mid-term review/reformulation mission in March 2002. These missions repeatedly flagged implementation flaws and were key to identify constraints, clarify technical aspects and eventually obtain the required institutional adjustments which improved the rate of implementation.
100. IFAD however does not seem to have defined a thorough implementation strategy nor performed effective oversight throughout the project life. The project approach at policy and community levels in a complex environment required both a thorough start-up phase to ensure ownership, and an embedded strategy to move to the larger programme. Such a phase seems to have been insufficiently thought-through and implemented, as shown by the lack of an effective M&E system, delays in site selection and the absence of interactions with similar projects, as confirmed by interviews with project staff. In addition, no exit strategy was planned for the project, whether to prepare for the next phase – the evaluation mission could not find any document reflecting on the next phase – or to ensure sustainability of the few results achieved – e.g. when the parties decided not to go for a second phase.
101. More importantly, the difficulties identified early on with the project management as described above – in particular overstaffing and location of PMU, confusion with Al-Hamad project, unbalanced support to pilot sites and site selection issues, weak management performance and top-down approach with communities – should have triggered a faster and firmer approach with government partners. Despite repeated difficulties, IFAD only envisaged to close the loan<sup>31</sup> – and informed the government – in January 2003, i.e. more than four years after the effective start of the project. It was clearly stated in the loan covenants that the PMU was to be located in Amman thereby giving the ground for an intervention from IFAD when the Government decided to locate the PMU in Ar Ruwayshid.<sup>32</sup> As explained, the four-year delay in corrective measures had a severe impact on the project overall performance.

<sup>31</sup> The January 2003 IFAD Supervision Report states that "IFAD will invite the Government of Jordan to close the Loan if no substantial and promising achievements are shown until end of June 2003".

<sup>32</sup> It should be underlined that IFAD General Conditions Applicable to Loan Agreements at the time of project approval and the loan agreement itself did not clearly indicate cases of loan suspension or cancellation apart from this issue of site location (only mentioning the need to "carry-out the obligations" from the loan).

102. In view of the initial innovative design and active backstopping but considering the insufficient start-up phase, the delays in a strong corporate reaction to serious project difficulties<sup>33</sup> and the lack of an exit strategy, the overall rating assigned to IFAD performance is moderately unsatisfactory (3) lower than PMD's own rating (5). This evaluation is well aware that the project was implemented under AFESD supervision but also considers that IFAD was entitled to intervene in a forceful manner based on its oversight role. In fact IFAD eventually did so but at a late stage, which affected the performance and achievement of the project.
103. The commitment of the Government to the project was generally good with satisfactory achievements at central level and the institutionalization/budgeting of some of the project activities after project closure described above. The present report nevertheless has highlighted the lack of achievements during the project life in establishing an enabling policy environment for the rangelands, a high-level profile for the Directorate of Rangeland Management and a solid M&E system. Also, the Government does not seem to have taken any initiative in revising the project in light of changing internal and external conditions (e.g. issue of targeting the poorer herders or project strategy linked to recurrent drought) nor planned for the preparation of the second phase or of an exit strategy together with IFAD.
104. Most of all, important delays in implementation and in taking corrective measures linked to difficulties with project management have jeopardized the expected outcomes of the project. After repeated recommendations from IFAD backstopping missions since the onset of the project (from 1998 on), it was only from August 2002 that the Government started to take the necessary action to improve the project management (staffing – including project manager –, structure and location), leaving eventually only two years of implementation to disburse the vast majority of the funds and accomplish most outputs. The 2003 project annual report states that the programme was actually launched in 2003. Despite commitment and some achievements at central level and based on the slow response to serious delays and difficulties in project implementation and management in the first four years, as well as the lack of an exit strategy, the rating for Government performance is moderately unsatisfactory (3), which is lower than PMD's own rating (5).
105. AFESD financial administration was satisfactory but supervision missions were weak regarding monitoring of physical aspects implementation and in providing assistance to resolve technical problems, as confirmed by interviews and IFAD backstopping missions. The few AFESD monitoring reports that could be consulted are very succinct, and only the final report eventually mentions the difficulties in project management and implementation encountered all along the project life. The performance of AFESD is rated as moderately unsatisfactory (3) slightly lower than PMD's rating.

### **C. Overall project achievement**

106. The summary rating table of the NPRRD is shown in annex 1. Based on the review of available documentation and the mission findings five years after closure, most of the ratings have been downgraded compared to the ratings by IFAD Project Management Department derived from the PCR. The assessment of relevance was rated as moderately satisfactory. The impact on household income and assets was rated unsatisfactory. Most performance and impact criteria, sustainability, and the performance of all project partners were rated as moderately unsatisfactory. The overall project achievement is moderately unsatisfactory (3) lower than PMD's rating (5).

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<sup>33</sup> E.g. the decision to close the project if no corrective action was to be taken.



### Key points

- Project was generally well designed but its performance suffered from implementation and management issues and late corrective measures;
- A few results were achieved at the institutional level and in the field (PRIME-related capacity-building, water conservation, two functional rested areas);
- Two sites out of five are operational with both rested-cum-grazed in good rainfall years and some restored areas but managed by FDAs and not the communities;
- Overall impact is very limited (a few savings for some better-off herders on supplementary feeding and water availability for some flocks) due to internal factors as well as recurrent droughts and land tenure issues;
- Based on the limited results achieved that prevented up-scaling, and in view of alternative funding sources for rangeland activities, partners decided not to pursue this pilot phase with the planned next phase of the programme.

## IV. Conclusions and recommendations

### A. Conclusions

107. Overall and in spite of the complexity and vulnerability of rangeland management in the Badia, the project managed to achieve several results. The project managed to create a well-equipped and staffed pastoral information monitoring unit (PRIME) at the Directorate of Range Management that was functional until project closure. The project also met to some extent the output targets of establishing the technical and infrastructure packages such as the water harvesting and conservation works. Regarding shrub plantation and the range reseeding areas and although the physical output targets were not fully met, the improved areas visited by the mission are being maintained by local officials of the Ministry of Agriculture through guarding and resting, with thus a positive – though very limited – environmental impact. The Ministry of Agriculture through its regional offices (FDAs) continues water resource maintenance, range improvement, and resting in some sites on a routine basis as part of its annual workplan and budget. The implementation of training, awareness and travelling workshops, and study tours for technical staff and herders was partially successful.
108. On the other hand, the project could not achieve its objectives because of external and internal reasons, in particular: (i) The early years of implementation coincided with a severe drought which was further complicated by confusion in usufruct and land use rights in a few sites; (ii) Project implementation was confronted with several start-up and management problems that impacted negatively on the ability of the PMU to function in a timely and organised manner and caused serious imbalances detrimental to implementation in the South Badia pilot sites; (iii) The 2002 project reformulation gave more attention to delivering fast track technical packages (range improvement and water harvesting) and distributing barley feed incentives, and less to implementing the participatory planning approach that was key to the project success.
109. As a consequence, the overall impact and sustainability of the project were limited mainly because of the poorly designed start-up phase, weaknesses in project management, poor performance in the implementation of participatory planning both for community empowerment and rangeland management, and absence of gender focus. Moreover the project was designed without an exit strategy needed to ensure sustainability of the RMGs and community ownership and management of the pilot sites.
110. Three main lessons can be drawn from the project experience at operational and policy levels as summarized in the following specific conclusions:

111. **Importance of thoroughly defining the project implementation strategy.** The project went through a long formulation and appraisal (1993-1997) process, but failed to develop an appropriate implementation strategy. In particular, it did not develop a well-managed start-up phase and a design-embedded exit strategy. Nor did it enforce a thorough recruitment process for the PMU staff. The project also overlooked the need for carefully planned and implemented baseline studies and surveys to be conducted and managed through a well-structured participatory monitoring and evaluation system. Such a system would have generated relevant indicators, reliable information and knowledge in order to measure impact and justify replication and scaling up.
112. **Sustainability of public institution building and implementation capacity.** A major task of the Project was to build the capacity of the newly created Directorate of Rangeland Management (DRM) to inform policy makers, researchers and service providers with updated and reliable information about the Badia and its users, and to guide the protection and conservation of the environment and the rangeland resources. Equally important was the task of developing the capacity of the herders and the technical field staff in the regions. This was a tall order for a public institution challenged by high staff turnover and lack of sufficient funding affecting its ability to: (i) upgrade the capacity and equipment of the high technology-based PRIME; (ii) build capacities in field directorates; and (iii) sustain investment activities in the field. The difficulties encountered by the project have shown the importance of carefully designing institutional building efforts as well as ensuring the participation of stakeholders from different public and private institutions that have the capacity to provide effective oversight and support to implementation.
113. **Validity and magnitude of the feed incentive (compensation).** The Jordanian rangelands provide 90 days of grazing during the best rainfall years, about 30 days during the normal years and almost about nothing during the drought years. Therefore, the contribution of barley feeds and crop-residue to the livestock industry<sup>34</sup> seems quite large compared to the contribution of the rangeland. For example, the sharp increase in barley prices and the temporary lifting of subsidies for one year (2006-2007) led to a sharp decrease in the number of herders, but not a decrease in livestock numbers as expected. This indicates that the smaller herders are getting out of their traditional livelihood enterprise leaving the way to large herders to whom the asset is being transferred.
114. The goal from the barley incentives distributed by the project was to compensate the poorest herders for the loss they could incur by removing their animals from the protected area. However such participation in the incentive schemes must extend to all herders in order for the incentive to be an effective tool for resource conservation. In the case of the project the incentive was provided to a small number of herders in each pilot site, and mostly to those who raised large numbers of animals (table 2).

## **B. Recommendations**

115. The recommendations below could be of use to the Government, especially in view of the initiation of the US\$160 million Badia Restoration Program funded by the UN Compensation Commission, and to both the Government and IFAD in view of their discussions on possible future investments.
116. **Need for a thorough implementation strategy and oversight of project management.** Based on the difficulties this project faced and the move by IFAD to direct supervision, emphasis should be placed early on, on setting up the right implementation strategy for projects to guarantee success, including standardized transparent recruitment of project director (e.g. through a competitive process) and

<sup>34</sup> The industry is, actually, feed market based, responding to a high demand for animal source foods which is currently met through importing. This indicates that a barley-feed livestock system would probably also be profitable for poorer herders provided they get specific support (e.g. in terms of cash flow or feed incentives).

conduct of the necessary baseline studies. In addition, corporate oversight mechanisms could be established for IFAD to be able to react rapidly and effectively to serious difficulties in project management, within the legal framework of IFAD General Conditions and in close collaboration with the Government.

117. **Need for a holistic strategy for rangeland rehabilitation.** Rangeland rehabilitation in Jordan is complex and requires carefully planned long-term bottom-up approaches fully aware of the traditions of the nomadic herding communities. The processes involved are interrelated and require a holistic socially integrated approach at all stages of design, implementation and supervision. The approach should incorporate the linkages between animal, water, soil, grazing and supplementary feed resources as well as the need for complementary income-generating activities. Long-term financial and environmental sustainability of livelihoods based on livestock herding should be considered, within the context of market prices as well as recurrent droughts linked to climate change, but also taking due account that the contribution of grazing can only be moderate in the Badia, therefore limiting opportunities for smallholders.
118. The range rehabilitation process should be guided by a functional and sustained range resource monitoring system capable of: (i) carrying out periodical and purpose-driven socio-economic and biophysical surveys and studies; (ii) establishing from the results of surveys and a studies herders' vulnerability threshold in order to assist in providing the poorest with the support needed to achieve sustained assets and food security in a barley-feed and market-oriented system.
119. **Adopt a truly participatory approach as one of the key elements of sustainability.** There are several aspects to consider to achieve sustainable rangeland management, whether social, economic, environmental or technical, and they should be linked to a true participatory approach. Considering the complexity of the activities, the rangeland rehabilitation projects in Jordan should be designed with provisions for a long start-up phase (at least one year) that leads to the design of training, awareness building activities, manuals and survey plans responsive to the implementation needs. The projects must implement planned exit strategies in order to allow for a gradual devolution of responsibility to the stakeholders in a manner that leads to sustainability and continuity. In principle, devolution may follow one of two alternatives: (i) to stream PMU responsibilities to the daily practices of the communities with government providing policy and strategic guidance, or (ii) gradual devolution of PMU responsibilities to the cooperating national institution, as an intermediary step before full ownership by the communities.
120. The community organizations should be empowered with capacities to plan, leverage funds and seek funding from local and national entrepreneurs. The community management approach should be based on consensus and collective action with minimum law enforcement measures.
121. **Setting up an enabling policy environment.** The rangeland rehabilitation and improvement interventions must be designed on the basis of strong commitment by the government to enforce and activate a set of legal, financial and institutional tools and drivers, in particular: (i) measures to address the complicated and unsettled land-tenure and usufruct rights (e.g. lack of clarity in ownership and communal use of the land) in a manner that acknowledges the economic realities of the Badia dwellers (e.g. sedentarisation, health and educational needs, transport, telecommunication and competitiveness of the livestock industry); (ii) analytical options needed to validate the cost/benefit of the incentives and compensations while taking into consideration that the livestock systems is mainly a crop-residue and barley based system; (iii) access to water and animal health services; (iv) full

understanding of the need to balance the socioeconomic and cultural value of herding with national food security.<sup>35</sup>

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<sup>35</sup> i.e. keeping the viability of herding in the Badia while maintaining low meat prices for urban dwellers, e.g. through enhanced access to the national market, or developing alternative sources of income for the Badia herders, like ecotourism.

## Rating comparison

Criterion	IFAD-PMD ratings <sup>A</sup>	PPA rating	Rating disconnect
<b>Project performance</b>			
Relevance	5	4	-1
Effectiveness	5	3	-2
Efficiency	4	3	-1
<b>Project performance<sup>B</sup></b>		<b>3.3</b>	<b>n.a.</b>
<b>Impact</b>			
(a) Household income and net assets	4.5	2	-2.5
(b) Human, social capital and empowerment	4.5	3	-1.5
(c) Food security and agricultural productivity	n.p. <sup>C</sup> /5	n.a.	n.a.
(d) Natural resources and environment	6	3	-3
(e) Institutions and policies	n.p.	3	n.a.
Overall rural poverty impact <sup>D</sup>	5	3	-2
<b>Other performance criteria</b>			
(a) Sustainability	5	3	-2
(b) Pro-poor innovation and scaling up	n.p. <sup>E</sup> /6	3	n.a.
(c) Gender equality and women's empowerment	5	3	-2
<b>Overall project achievement<sup>F</sup></b>	<b>5</b>	<b>3</b>	<b>-2</b>
<b>Performance of partners</b>			
(a) IFAD's performance	5	3	-2
(b) Government's performance	5	3	-2
(c) Cooperating institution	4	3	-1
<b>Average net disconnect</b>			<b>-1.85</b>

<sup>A</sup> Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

<sup>B</sup> Arithmetic average of ratings for relevance, effectiveness and efficiency.

<sup>C</sup> Food security not rated.

<sup>D</sup> This is not an average of ratings of individual impact domains.

<sup>E</sup> Innovation not rated.

<sup>F</sup> This is not an average of ratings of individual evaluation criteria. Moreover, the rating for partners' performance is not a component of the overall assessment ratings.

## Basic project data

				Approval (US\$ m)		Actual (US\$ m)	
Region	NEN		Total project costs	9.0		5.47	
Country	Jordan		IFAD loan and % of total	4.0	44 %	2.79	51 %
Loan number	468		Borrower	4.5	50 %	2.68	49 %
Type of project	Livestock						
Financing type	IFAD exclusive						
Lending terms <sup>a</sup>	Intermediate						
Date of approval	04/12/1997						
Date of loan signature	03/04/1998		Beneficiaries	0.5	5 %	0	0%
Date of effectiveness	04/09/1998						
Loan amendments	28/5/2002 Reformulation in March 2002		Number of beneficiaries	12 242 Householders (direct: 3 650 families)		Same (direct: 7 200, PCR)	
Loan closure extensions	Two extensions (total duration is 2.5 years until 31/12/2005)		Cooperating institution	Arab Fund for Economic & Social Dev. (AFESD)			
Country programme managers	O. Zafar (From 11-02-2011)  T. El-Zabri (From 01-07-2005 to 11-02-2011)  A. Abdouli (From 08-09-1997 to 01-07-2005)		Loan closing date	30/06/2003		31/12/2005	
Regional director(s)	T. Van Der Plum A. Slama M. Bishay		Mid-term review	March 2002 (Reformulation Report)			
PCR reviewer	Cécile Berthaud		IFAD loan disbursement (%) at project completion	65			
PCR quality control panel	Fabrizio Felloni Ashwani Muthoo						
Comment:							
Project budget was reduced by SDR 500,000 on 3/11/04							

<sup>a</sup> According to IFAD's Lending Policies and Criteria, there are three types of lending terms: highly concessional (HI), intermediate (I) and ordinary (O). The conditions for these are as follows: (i) special loans on highly concessional terms shall be free of interest but bear a service charge of three fourths of one per cent (0.75%) per annum and have a maturity period of forty (40) years, including a grace period of ten (10) years; (ii) loans on intermediate terms shall have a rate of interest per annum equivalent to fifty per cent (50%) of the variable reference interest rate, and a maturity period of twenty (20) years, including a grace period of five (5) years; (iii) loans on ordinary terms shall have a rate of interest per annum equivalent to one hundred per cent (100%) of the variable reference interest rate, and a maturity period of fifteen (15) to eighteen (18) years, including a grace period of three (3) years.

Sources: PPMS 2011, PCR Report (Jan. 2007), President's Report (Dec.1997).



## Terms of reference

### I. Background

1. The Project Performance Assessment (PPA) is a concise form of project-level evaluation. It is conducted as a next step after a Project Completion Report Validation (PCRV). Its main objective is to provide additional independent evidence on project achievement and further validate the conclusions and evidence from the completion report of a project.
2. Both PCRVs and PPAs are conducted by the IFAD's Independent Office of Evaluation (IOE). The PCRV consists of a desk review of the Project Completion report (PCR) and other available reports and documents. A PPA includes country visits in order to complement the PCRV findings and fill in selected knowledge and information gaps identified in the PCRV. The purpose of the PPA is in particular to shed light on selected features of project implementation and impact that were not adequately analyzed in the PCR.
3. As the PCRV, the PPA applies the evaluation criteria outlined in the IOE Evaluation Manual. It does so in a selective manner in view of the time and resources available. In particular, the PPA is generally not expected to undertake quantitative surveys. Rather, the PPA adds analysis to the PCR based on interactions with country stakeholders, direct observations in the field and information (mostly qualitative) drawn from interviews with project beneficiaries and other key informants.
4. **Project description.** The National Programme for Rangeland Rehabilitation and Development – Phase 1 (NPRRD) was established to reduce environmental degradation of rangeland resources by introducing sustainable management practices. The rangelands were severely degraded by the increased number of animals and the decline in the observance of appropriate/traditional grazing practices. The project had five main objectives: (1) provide policy makers with reliable and updated information on the current status of rangeland resources; (2) develop a national pastoral resources assessment monitoring system for the rangeland; (3) enhance environmental awareness in the utilization of rangeland resources; (4) develop methods of participatory planning with local communities for rehabilitation and management of grazing resources; (5) assist beneficiaries and target communities directly in the implementation and periodic revision of rangeland management plans.
5. The project was the first phase of a larger programme (planned to unfold in three phases) that aimed to re-establish the productive capacity of Jordan's rangeland resources in order to realize their significant environmental, social, cultural and economic contribution for present and future generations. The project area was the Badia of Jordan (central and eastern parts of the country) and focused on five pilot areas. It was co-financed with the Government of Jordan.
6. The project had four components: (i) participatory planning process (6% of base costs); (ii) information and environmental awareness (including pastoral resources information M&E) (24%); (iii) implementation of rangeland management plans in pilot sites (53%); (iv) programme management (17%). Its strategy focused on developing a capacity to create a consolidated rangeland information data base, and to coordinate, plan and influence rangeland development at a national level, and simultaneously exploring possible interventions likely to lead to the achievement of the objectives and goals for a sustainable improvement to the rangelands.
7. The potential beneficiaries were the 12,242 livestock owning families living in and from the rangelands but the project estimated that 3,650 families living in the pilot areas would directly benefit. There would be benefits at community level in pilot

areas in terms of improved rangelands (and greater carrying capacity), increased production and incomes (increased production value and profit margin of sheep), reduced workload for women and human resource development. Benefits at national level would include formulation of long-term policies for the rangeland and institutional building and reduction in rangeland degradation, preservation of natural resources and improvement in living conditions of livestock owners and herders, including women.

8. **Project costs and supervision.** At the time of project design, total costs were estimated at US\$9.0 million, of which 4.0 million was IFAD loan, 4.5 million was the contribution from the Government and 0.5 million would be the contribution from beneficiaries. IFAD loan was reduced by SDR 500,000 in 2004. Total project cost at completion was US\$5.47 million.
9. **Country programme evaluation for Jordan and IFAD-funded operations in Jordan.** As decided by the Executive Board in its 98<sup>th</sup> session in December 2010, the Office of Evaluation will undertake in 2011 a country programme evaluation (CPE) of the IFAD-Government of Jordan co-operation. The present PPA is undertaken in the context of the CPE. It will provide an opportunity to go into more details in the assessment of one of the projects funded by IFAD in Jordan and generate essential evidence that will also be useful for the CPE. The PPA mission to Jordan will be undertaken jointly with the CPE preparatory mission.
10. Current IFAD-supported operations in Jordan include the second phase of the Agricultural Resource Management project (ARMP II – US\$11.8 million) complemented by a Global Environment Facility (GEF) grant (US\$6.4 million) on Mainstreaming Sustainable Land and Water Management Practices in Jordan. Two GEF grants are under preparation of which one is on Mainstreaming Biodiversity in the Sylvo-Pastoral and Rangeland Landscapes in Southern Jordan.

## II. The process

11. The PPA mission is scheduled 9-20 April 2011 and will include a programme of field visits to NPRRD sites, interaction with government authorities, beneficiaries and other key informants. At the end of the PPA mission, a short wrap-up session will be held in Amman with government representatives: a power point presentation will summarise the preliminary findings of the mission and key strategic issues.
12. At the conclusion of the field visits, the draft PPA report will be prepared and submitted to IOE and IFAD for internal review. Afterwards, the PPA Report will be shared with the Government of Jordan for any further comment. Upon receipt of Government's comments, IOE will finalise the report and prepare the audit trail.
13. The main stakeholders of the NPRRD will be involved throughout the evaluation to ensure that the evaluators fully understand the context in which the project was implemented, the opportunities and the constraints faced by the implementing organizations. An intense cooperation and information exchange will be established, starting with the sharing of these Terms of Reference at the outset of the process. Formal and informal opportunities will be made available for discussing findings, recommendations and lessons from the process.

## III. Objectives

14. PPA's objectives are to: (1) provide an independent assessment of the overall results and impact of projects, for accountability and management purposes; (2) distil lessons learned, identifying key explanatory factors of project performance and poverty reduction results, for learning and self-evaluation purposes.
15. In this context and given the time and resources, the main purpose of the present PPA is to gather additional evidence on the major information gaps, inconsistencies or analytical weaknesses of the PCR. Consequently, the PPA will assess the project achievement covering all evaluation criteria of the IFAD Evaluation Manual (as well

as additional elements on gender, climate change and scaling-up),<sup>1</sup> but will concentrate attention on the following specific areas based on issues highlighted in the PCRV.

16. **Project impact.** Delays in project implementation seem to have left insufficient time to obtain planned outcomes at beneficiary level in the pilot sites but the lack of data and evidence in available documentation does not enable to confirm or infirm this judgement. This is especially true at the impact level for the planned increase in livestock productivity, household assets and income, and for the preservation/rehabilitation of the rangelands.
17. **Project sustainability.** The conduct of the PPA well after the project closure will enable to assess sustainability factors and fill information gaps, especially at institutional, community and environmental levels. It will: (i) look at institutional ownership of the monitoring system for the rangelands and the existence of effective strategy and policies for their rehabilitation and conservation; (ii) review the implementation of the rangeland management plans aimed at promoting the sustainable use of the rangelands for livestock production through a continuous participatory approach; (iii) check the validity of the environmental packages and solutions proposed by the project on technical, social and economic grounds.
18. **Relevance of rangeland protection schemes.** With the view to lessons learning and replicability, the PPA will look at the specific features of the rangeland protection schemes of the NPRRD and analyze their relevance according to several key aspects: cost efficiency elements of the rehabilitation packages, comparison of the protection schemes (inside the project and relative to other interventions, in Jordan and elsewhere),<sup>2</sup> reasons for success or failure (e.g. changing context), apparent contradiction between increasing income from livestock and preserving the rangelands (relevance to the development needs of the rural poor).
19. **Impact of national policies.** In view of the importance of the policy environment for the sustainable use of the rangelands, it is proposed to gather evidence on the effects of national policies and their evolution on the achievement of project objectives (e.g. land tenure rights, incentives and/or subsidies).
20. In line with the country programme evaluation, the PPA will also aim at assessing the contribution of the project to the overall objectives of the 2000 Country Strategic Opportunities Programme (COSOP), including with regard to advocacy and policy dialogue.

#### IV. Methods

21. The PPA exercise will follow the key methodological fundamentals established in the IFAD Evaluation Manual,<sup>3</sup> additional guidance on gender, scaling-up and climate change, and guidelines for PCRV/PPA. It will rely on the desk review of the available documents undertaken for the preparation of the PCRV (see background documents below). During the PPA mission, additional evidence and data will be collected to verify available information and reach an independent assessment of performance and results.
22. Given the time and resources available and in line with the purpose of the PPA, data collection methods will mostly include qualitative participatory techniques and focus on a specific set of topics. The methods used will be individual interviews, focus-group discussions with beneficiaries and direct observation. The PPA will also make use – where applicable – of the data available through the NPRRD monitoring and evaluation system and the Pastoral Resources Information Monitoring and

<sup>1</sup> Evaluation criteria: project performance (relevance, effectiveness and efficiency), rural poverty impact (assets and income; food security and agricultural productivity; human and social capital; natural resources, environment and climate change; institutions and policies), sustainability, innovation and scaling up, gender equality and women's empowerment, and performance of partners.

<sup>2</sup> Syria Badia Rangeland Development Project.

<sup>3</sup> [http://www.ifad.org/evaluation/process\\_methodology/index.htm](http://www.ifad.org/evaluation/process_methodology/index.htm).

Evaluation (PRIME) unit in the Ministry of Agriculture and not reflected in the PCR. Triangulation will be applied for validating findings emerging from different information sources. This will allow the evaluation to reduce the risk of bias that may come from single informants or measurement errors associated with the application of single data gathering methods.

## **V. Human resources**

23. The mission is composed of Ms. Cécile Berthaud, IOE evaluation officer and lead evaluator, and Mr. Ahmed Sidahmed, consultant and rangeland management specialist.

## **VI. Proposed schedule for the mission**

9 April	Arrival in Amman
10-11 April	Meetings in Amman
12-17 April	Field visits (North-East and South Badia)
18 – 19 April	Meetings in Amman, including wrap-up meeting
20 April	Departure

## **VII. Background documents**

### Methodology

IOE (2010). Guidelines for the Pilot Phase of the Project Completion Report Validation (PCRv) and Project Performance Assessment (PPA)

IFAD (2009). Evaluation Manual

### Content

IFAD, Report and Recommendation of the President, 1997

IFAD, Jordan National Programme for Rangeland Rehabilitation and Development Phase I Appraisal Report, 1997

IFAD, Backstopping Report, 1998

IFAD, The Hashemite Kingdom of Jordan Country Strategic Opportunities Paper (COSOP), 2000

Arab Fund for Economic and Social Development (AFESD) Jordan National Programme for Rangeland Rehabilitation and Development Supervision Report, 2000

IFAD, Reformulation Report (Mid-Term Review), 2002

IFAD, Supervision Report, 2003

Government of Jordan, Ministry of Agriculture, Project Progress Report, 2003

IFAD, Backstopping Report, IFAD, 2004

Arab Fund for Economic and Social Development (AFESD), Jordan National Programme for Rangeland Rehabilitation and Development Monitoring report, 2005

IFAD, Jordan National Programme for Rangeland Rehabilitation and Development Programme Completion Report Main Report, 2007

IFAD, The Hashemite Kingdom of Jordan Country Strategic Opportunities Paper (COSOP), 2007

## Definition of the evaluation criteria used by IOE

<i>Criteria</i>	<i>Definition<sup>a</sup></i>
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, institutional priorities and partner and donor policies. It also entails an assessment of project design in achieving its objectives.
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted into results.
<b>Rural poverty impact<sup>b</sup></b>	Impact is defined as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a result of development interventions.
<ul style="list-style-type: none"> <li>Household income and assets</li> </ul>	Household income provides a means of assessing the flow of economic benefits accruing to an individual or group, whereas assets relate to a stock of accumulated items of economic value.
<ul style="list-style-type: none"> <li>Human and social capital and empowerment</li> </ul>	Human and social capital and empowerment include an assessment of the changes that have occurred in the empowerment of individuals, the quality of grassroots organizations and institutions, and the poor's individual and collective capacity.
<ul style="list-style-type: none"> <li>Food security and agricultural productivity</li> </ul>	Changes in food security relate to availability, access to food and stability of access, whereas changes in agricultural productivity are measured in terms of yields.
<ul style="list-style-type: none"> <li>Natural resources and the environment and climate change</li> </ul>	The focus on natural resources and the environment involves assessing the extent to which a project contributes to changes in the protection, rehabilitation or depletion of natural resources and the environment as well as in mitigating the negative impact of climate change or promoting adaptation measures.
<ul style="list-style-type: none"> <li>Institutions and policies</li> </ul>	The criterion relating to institutions and policies is designed to assess changes in the quality and performance of institutions, policies and the regulatory framework that influence the lives of the poor.
<b>Other performance criteria</b>	
<ul style="list-style-type: none"> <li>Sustainability</li> </ul>	The likely continuation of net benefits from a development intervention beyond the phase of external funding support. It also includes an assessment of the likelihood that actual and anticipated results will be resilient to risks beyond the project's life.
<ul style="list-style-type: none"> <li>Innovation and scaling up</li> </ul>	The extent to which IFAD development interventions have: (i) introduced innovative approaches to rural poverty reduction; and (ii) the extent to which these interventions have been (or are likely to be) replicated and scaled up by government authorities, donor organizations, the private sector and others agencies.
<ul style="list-style-type: none"> <li>Gender equality and women's empowerment</li> </ul>	The criterion assesses the efforts made to promote gender equality and women's empowerment in the design, implementation, supervision and implementation support, and evaluation of IFAD-assisted projects.
<b>Overall project achievement</b>	This provides an overarching assessment of the project, drawing upon the analysis made under the various evaluation criteria cited above.
<b>Performance of partners</b>	
<ul style="list-style-type: none"> <li>IFAD</li> <li>Government</li> </ul>	This criterion assesses the contribution of partners to project design, execution, monitoring and reporting, supervision and implementation support, and evaluation. It also assesses the performance of individual partners against their expected role and responsibilities in the project life cycle.

<sup>a</sup> These definitions have been taken from the OECD/DAC *Glossary of Key Terms in Evaluation and Results-Based Management* and from the IFAD Evaluation Manual (2009).

<sup>b</sup> The IFAD Evaluation Manual also deals with the "lack of intervention", that is, no specific intervention may have been foreseen or intended with respect to one or more of the five impact domains. In spite of this, if positive or negative changes are detected and can be attributed in whole or in part to the project, a rating should be assigned to the particular impact domain. On the other hand, if no changes are detected and no intervention was foreseen or intended, then no rating (or the mention "not applicable") is assigned.

## List of key persons met

### Persons met in Amman

Time	Name	Position	Organization
Sunday 10 April			
10.00 hrs	Dr Odeh Al Meshan	Director, Badia Research Programme	National Center for Research and Development Badia Research Program
11:30 hrs	Dr Wael Alrashdan	Director of the Rangeland Directorate	Ministry of Agriculture (MOA)
	Dr Mahmoud Abu-Sitta	Project staff	
	Mr Zaid Abadi		
13.30 hrs	Dr Awni Taimeh	Head of Department for Land Management (Ex-Sec General of MOA)	University of Jordan Faculty of Agriculture
15.15 hrs	Dr Ahmed Elminiawy	Food and Agriculture Organization of the United Nations (FAO) Representative	FAO Representation Office in Amman
Dinner	Dr Nasri Haddad	Regional Coordinator for West Asia Regional Program.	International Center for Agricultural Research in the Dry Areas (ICARDA)
	Prof Mahmud Duwayri	Former Minister of Agriculture and Professor	University of Jordan Faculty of Agriculture
Monday 11 April			
8.00 hrs	Ms Jacinta Barrins	Country Director	United Nations Development Programme (UNDP)
9.00 hrs	Mr Basam Shdefat	Head of Livestock and Rangeland Management Department	National Center for Agriculture and Extension (NCARE)
10.00 hrs	Mr Faisal Awawdeh	Director General	
11:30 hrs	Mr Tawfiq Habashneh	Director General	Agricultural Credit Cooperation (ACC)
	Ms Lubana Ismail Abdel Qader Hashash	Manager for Projects and International Cooperation	
	Mr Ziad Obeidat	Director, Projects Department	
12.30 hrs	Mr Samar Jomaian	Projects Department (IFAD Focal Point)	Ministry of Planning & International Cooperation (MoPIC)
	Mr Ahmad Al-Jazar	Head of Water and Agriculture	
	Ms Lamia Al-Zoubi	Director, Impact Assessment Unit	
14.30 hrs	Ms Sana Elhennawi	Senior Evaluator, Impact Assessment Unit	USAID
16.00 hrs	Dr Wayne Frank	Deputy Director, Water Resources & Environment Office	
Dinner	Dr Wakud Abed Rabboh	Director General	HORIZON For Sustainable Development Al Bireh
	Dr Abedal Nabil Fardous	Coordinator	Badia Restoration Program/UNCC



From Tuesday 12 April to Sunday 17 April: Field visits			
Sunday 17 April Dinner	<b>Ms Ruba Al Zubi</b>	Director of Environment Sustainability & Acting Director of Institutional Development and Project Management	<b>Development Zones Commission Office of the Prime Minister</b>
Monday 18 April			
8.30 hrs	<b>Dr Nasri Haddad</b>	Regional Coordinator for West Asia Regional Program.	<b>ICARDA</b>
10.00 hrs	<b>Dr Wael Alrashdan</b>	Director of the Rangeland Directorate	<b>Ministry of Agriculture (MOA)</b>
10.30 hrs	Group meeting with Departments of water harvesting, monitoring and evaluation, studies and policies, and agriculture risk management.		<b>MOA</b>
12.30 hrs	<b>Eng. Omar Al-Rafie</b>	General Director	<b>The Hashemite Fund for Development of Jordan Badia (HFDJB)</b>
14.00 hrs	<b>Dr Abedal Nabil Fardous</b>	Coordinator	<b>Badia Rehabilitation Programme/UNCC</b>
18.00 hrs	<b>Dr Mahmoud Abu-Sitta</b>	Former Director of Rangeland Directorate (MOA) and project staff	<b>Retiree</b>
	<b>Mr Muttee Al-Shibly</b>	Project staff	<b>MOA</b>
Tuesday 19 April			
Wrap up Meeting			
13.00 hrs	<b>H.E. Dr Saleh Al-Kharabsheh</b>	Secretary General Chairman of the Wrap up meeting.	<b>Ministry of Planning &amp; International Cooperation (MoPIC)</b>
18.00 hrs	<b>Mr Yehya Kaled</b>	Director General	<b>The Royal Society for the Conservation of Nature (RSCN)</b>

## Key persons met in the field visits: 12-17 April 2011

### 12-13 April: Visit of project sites in North-East Badia: Ar Ruwayshid (milk processing plant only) and Menshiat El Ghieth and meetings

Mr Zaid Abadi	Director of Agriculture Directorate of North-East Badia
Mr Hani Hmoud	GIS Specialist and former project staff, The Hashemite Fund for Development of Jordan Badia
Herders	Faraj Ayash Awad H. Ghaiath Felah Dash Marhi H. Ghaiath Mohamed Zuwailan Ahmed A Khaldi Badr S. M. Ghaiath Fayyad Salim El Maased A Miran Beni Khalid Redha Ghaiath Mudday Ghadeer
Cooperative members of the milk processing unit	Ar Ruwayshid

## Key persons met in the field visits: 12-17 April 2011 (cont.)

### 14 April: Visit of Shreif project site (Al-Karak) and meetings

Mr Ahmed Abdin Medaouha	Director of the Agriculture Directorate for Al-Karak
Herders	Hamed Al Adaily Emad Azzasmy Omer Adaily M. Hamed Adaily
Treasurer of the milk processing unit	Shreif

### 16 April: Visit of project sites in Mreigha and Shoubak and meetings

Mr Gahassan Al Shawish	Livestock Specialist, Agriculture Directorate in Shoubak
Agricultural Credit Corporation (ACC) Representative	Shoubak
Herders	M. Abdallah Sheikh Omer

### 17 April: Visit of projects site in Al Hussayniah/Hashimyah (Ma'an) and meetings

Mr Jamil Y Al Jaafreh	Director, Agricultural Development Directorate of Sharah Region
Mr Hakim Al Nawayseh	Field Director, Agricultural Development Directorate of Sharah Region
Mr Ali Alzaghayneh	Head Livestock Unit
Mr Gihad Al Saydat	Head Rangeland Unit
Mr Basin Al Torah	Liaison Officer
Herders	A. Aziz Zibat M.B. Alghuwadat M.A. Al Zariyat I.M Maoudan Inad S. Al. Jazi
Cooperative members	

## Wrap up Meeting chaired by H. E. Dr. Saleh Al-Kharabsheh, Secretary General of the Ministry of Planning and International Cooperation (MoPIC)

### List of wrap up attendees 19 April 2011

<i>N.</i>	<i>Names</i>	<i>Institutions</i>
1	Prof. Mahmud Duwayri Professor	Faculty of Agriculture University of Jordan
2	Mr Zaid Abadi Director of Agriculture Directorate of North-East Badia	Ministry of Agriculture (MOA)
3	Dr Wael Alrashdan Director	Rangeland Directorate (MOA)
4	Dr Awni Taimeh Head of Department for Land Management (Ex-Sec General of MOA)	Faculty of Agriculture University of Jordan
5	Dr Nasri Haddad Regional Coordinator for West Asia Regional Program	International Center for Agricultural Research in the Dry Areas (ICARDA)
6	Ms Helen Juwaidah	Ministry of Planning and International Cooperation (MoPIC)
7	Mr Sakher	MoPIC
8	Mr Ahmad Al-Jazar Head of Water and Agriculture	MoPIC
9	Ms. Samar Jomaian	MoPIC
10	Dr Yehya Khaled Director General	The Royal Society for the Conservation of Nature (RSCN)
11	Mr EC. Khaleb Ayat	MoPIC
12	Mr Shabib Haddadin	MOA
13	Dr Masnat Al. Hiary	NCARE
14	Ms Lubana Hashash Manager for Projects and International Cooperation	Agricultural Credit Cooperation (ACC)
15	Dr Nabeel Bani Hani	NCARE
16	Mr Jamil Y Al Jaafreh Director, Agricultural Development Directorate of Sharah Region	MOA
17	Ms Luna Obaidat	MoPIC
18	Ms Lamia Al Zou'bi Director Evaluation Impact Assessment Unit	MoPIC
19	Ms Sana Elhennawi Senior Evaluator Impact and Assessment Unit	MoPIC
20	Dr Abdel Nabi Fardous Coordinator	MoEnv/Badia Rehabilitation Programme/UNCC

## Main bibliography

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- RSCN The Royal Society for Conservation of Nature (RSCN) Brochures.

## Physical progress indicators

### Output targets and achievements of NPRRD (1999 to 2005)

Output Indicator	Unit	Target	Cumulative Achievements							Notes
			1999	2000	2001	2002	2003	2004	2005	
Participatory Planning Process										
1. Community Mobilization										
Selection of pilot sites.	no.	5	2	2	4	4	6	6	5	Note 1
Establish rangeland management group.	no.	5	2	2	4	4	5	5	5	
Groups incorporated as association	no.	n/a	-	-	-	-	-	4	4	Note 2
Association members	no.	n/a	-	-	-	-	-	-	823	
2. Training										
Staff training in participatory approach	course	1	1	1	1	1	1	2	2	Note 4
Staff trainees	no.	n/a	9	9	9	9	9	15	15	
Beneficiaries training in participatory approach	w'shop	5	1	1	1	2	2	5	5	
Beneficiary trainees	no.	36	20	20	20	40	40	60	60	
RMG association capacity building	w'shop	n/a	-	-	-	-	-	2	2	
RMG leader trainees	no.	n/a	-	-	-	-	-	12	12	
Rangeland management/animal health training	course	n/a	-	-	-	5	5	5	10	Note 5
Beneficiary trainees	no.	n/a	-	-	-	100	100	200	200	
Milk processing	course	n/a	-	-	-	5	5	10	10	
Beneficiary women	no.	n/a	-	-	-	100	100	200	200	
Dairy machinery operation	course	n/a	-	-	-	-	-	3	3	Note 6
Beneficiary women operators	no.	n/a	-	-	-	-	-	9	9	
3. Technical Assistance										
CARE International	mo.	n/a	-	-	-	-	-	2	12	
Information and Environment Awareness										
1. Technical Manuals										
Guidelines for participatory approach	manual	1	-	-	-	-	-	1	1	Note 7
Rangeland M&E guidelines	manual	1	-	-	-	-	-	-	-	
Water harvesting guidelines	manual	n/a	-	-	-	-	-	1	1	Note 8
2. Training										
Mapping training for staff	mo.	-	-	-	-	-	-	12	12	Note 9
3. Studies										
Socio-economic survey	no.	1	1	1	1	1	1	2	2	Note 10
Natural resources on rangelands	no.	1	1	1	1	1	1	2	2	
Land usufruct and tenure laws	no.	-	-	-	-	-	-	1	1	Note 11
4. Technical Assistance										
Water harvesting consultant	pers mo.	-	-	-	-	-	-	4	4	
Rangeland Management Plans										
Area planted with forage shrubs	du.	50,000	n/a	n/a	n/a	6,25	6,25	13,6	14,6	Note 12
Seedlings	'000	n/a	n/a	n/a	n/a	344	344	751	806	
Area seeded	du.	50,000	n/a	n/a	n/a	5,00	5,00	21,6	31,6	Note 13
Seed	Kg.	n/a	n/a	n/a	n/a	1,10	2,20	7,00	7,00	
Area de-stocked	du '000	500	50	100	100	200	450	450	450	Note 14
Barley distributed as compensation	ton	n/a	-	-	-	-	-	1,35	1,35	Note 15
Hafirs constructed	no.	2	-	-	-	-	3	9	11	
Cisterns constructed	no.	n/a	-	-	-	-	-	10	10	
Soil and water conservation works	km.	n/a	-	-	-	-	-	20	20	
Tree basins established	no.	n/a	-	-	-	-	-	62,5	62,5	
Water spreading structures	km.	n/a	-	-	-	-	-	10	10	
Milk processing plant design and installation	no.	n/a	-	-	-	-	-	3	3	Note 16
Programme Management										
1. PMU										
Programme Manager appointed	no.	1	1	1	1	1	1	1	1	Note 17
M&E Specialist	no.	1	1	1	1	1	2	2	2	
Socio-economist	no.	1	-	-	-	-	3	3	3	
Range Specialist	no.	1	3	4	5	7	7	7	7	
Animal Husbandry Specialist	no.	n/a	1	2	2	2	2	2	2	
Accountant	no.	1	1	1	1	1	3	3	3	
2. PRIME										
Manager	no.	1	1	1	1	1	1	1	1	Note 18
GIS Specialist	no.	n/a	2	2	2	2	2	2	2	
3. Training										
M.Sc. degree	no.	5	5	5	5	5	5	5	5	Note 19
Mid-term training course – external	no.	n/a	-	-	-	-	-	4	4	Note 20
Short-course-internal	Course	n/a	-	-	-	-	-	3	3	
Training	no.	n/a	-	-	-	-	-	45	45	
Study tour – international	no.	n/a	-	-	21	21	21	21	21	Note 21

Source: Project Completion Report, January 2007.

- Note 1: Pilot site at Mreigha was abandoned due to lack of resolution of differences with nomadic and sedentary rangeland users on the recommendation of the IFAD backstopping mission, and cooperating rangeland management group relocated to Hussayniah and Hashimyah.
- Note 2: Four of the Rangeland Management Groups decided on incorporation as associations under Jordanian Law, to gain Government benefits and access to income generating investment. One Rangeland Management Group remains as a rangeland management unit due to lack of consensus between the two sub-groups.
- Note 3: Rangeland Associations currently comprise: Hussayniah, 265 members; Karak Shreif, 400 members (8 villages); Mahyta, 38 members; Rokban (Bani Khalid) 35 members; Ar Ruwayshid Women's Association, 85 members.
- Note 4: Initial training course was conducted by JOHUD under IFAD grant. Training did not adequately elaborate the participatory approach required for inculcating the target group with rangeland management practice. An additional five day training course was conducted by CARE International under contract for services by the Programme. The Programme PMU and the Badia PMU – one year in-service training in water harvesting management and rangeland management, and participatory approach; and trainer of trainers (in this training participants of Jordan – 13 persons) with CARE international IFAD grant.
- Note 5: Rangeland management and animal health training consisted of a two day course in which one day was allocated to each subject.
- Note 6: The women dairy machinery operators are employed by two Rangeland Management Associations that have invested in dairy product manufacture.
- Note 7: The guidelines for participatory approach were prepared by CARE International.
- Note 8: Water harvesting guidelines prepared by consultant contracted by the Programme.
- Note 9: Training provided by Royal Jordanian Geographic Centre.
- Note 10: Socio-economic survey undertaken by consultant contracted by the Programme.
- Note 11: Draft law prepared; land tenure secured through cooperative group structure.
- Note 12: Net area planted to shrubs, not including unsuitable for tractor operations.
- Note 13: Net area seeded, not including land unsuitable land on the pilot sites such as salt pans and soils with extensive stony cover or rocky outcrops.
- Note 14: Includes area rested for two years and now under rotational grazing, and area where livestock is currently excluded for rangeland regeneration.
- Note 15: Barley distributed to target groups on the pilot sites as well on adjacent areas. In some cases (e.g. at Shreif the Rangeland Management Group sold their allocation to fund complimentary income generating activities.
- Note 16: Milk processing plants operating with Rangeland Management Groups (Cooperatives) in Karak (Shreif pilot site) and Ma'an (Hashimyah and Hussayniah pilot sites, and with the Ar Ruwayshid Women's cooperative (Al Hamad pilot sites).
- Note 17: Original Programme Manager located at Ar Ruwayshid replaced by Programme Manager within the MOA Rangeland Directorate in Amman.
- Note 18: GIS Specialist within the PRIME are paid by the MOA.
- Note 19: M.Sc. candidates were supported by CIDA.
- Note 20: Training undertaken in Syria.
- Note 21: Study tour to Tunisia.



## Sustainability performance

<i>Sustainability indicator and category</i>	<i>Actor/stakeholders</i>	<i>Comments</i>	<i>Sustainability elements (Status during PPA mission April 2011 )</i>
<i>Institutional</i>			
• PRIME	MOA, Policy and decision makers, public and private institutions	Experts transferred to HFDJB, Reduced to one person, not functional.	One staff member recently appointed in Rangeland Directorate, some of the trained staff moved to perform same task s under better conditions ( e.g. HFDJB).
• DRM	MOA, Policy and decision makers, public and private institutions	Structure maintained but very week department with high turnover of Director and other staff.	DRM operational but not visible specially compared to other players such as HFDJB and MOE's BRP.
• Trained • Trainers	MOA, FDAs, PMU	Most trained staff working in the country, although some might have been transferred to other location, some might have retired but in different places Capacity to develop and mainstream approaches and methodologies for participatory planning and implementation of rangelands rehabilitation and management.	No community trainers found in the project sites. Professionals who were trained are engaged in range related activities whether in MOA, MOE Universities or research centres.
M&E	MOA, DRM	Poor performance during project, dysfunctional.	Does not exist
<i>Organizational</i>			
• Range management groups RMGs/associations Range Management Associations (Cooperatives) RMAs	RMG Leaders, Herders' families, members in the RMGs	The RMGs do not manage as planned (e.g. Participatory planning, water point maintenance and management, of the recommended grazing) and mostly do not exist. Representation to the communities varied and in most cases questionable as members were mostly Sheikhs and better off herders.	The Government manage the sites as part of a routine task covering about 30 areas marked for protection.
• Range improvement/restoration • Improved rangelands (areas within sites)	RMG Leaders, Herders' families, members in the RMGs	1465 ha planted with shrubs, 806 seedlings planted, 3160 ha seeded with 7000 kg seeds. Varied extent of success and meeting of targeted areas (best in Ghieth, worst in Shreif). The RMGs do not manage as planned (e.g. participatory planning, water point maintenance and management, of the recommended grazing) unsustainable.  Representation to the communities varied and in most cases questionable as members were mostly Sheikhs and better off herders.	Improved technical and structural activities are managed by MOA (A staff).

## Sustainability performance (cont.)

<ul style="list-style-type: none"> <li>Milk Processing women Cooperatives</li> </ul>	Women Group leaders	Only one of three functional. Ar Ruwayshid group recently received support to expand operation, to construct a fattening facility and in the process of establishing a fodder production facility.	Shreif site is equipped but abandoned, no confirmed news on the status of Hussaynah; Ghieth Processing plant functional, improved and getting support to diversify the business through fodder production and breed improvement.
<ul style="list-style-type: none"> <li>Water harvesting structures</li> </ul>	FDA's, RMG leaders	Well-structured and maintained during and after project closure.	Only one Hafir in Badia lacks maintenance. In general the water management is undertaken by site guards.
<ul style="list-style-type: none"> <li>Range management Plans</li> </ul>	RMG leader	No plans were developed; at closure only limited management of the rested areas in some sites. No involvement of the beneficiaries was reported and no in-kind contributions to the project as planned.	No role for RMGs. All rested area development and management handled as routine FDA activities.
<i>Environmental</i>			
<ul style="list-style-type: none"> <li>Destocking sites (rested)</li> </ul>	RMG leader, herders' families, FDA	Only two sites (Menshiat El Ghieth and Rokban) functional, maintained. The sites in South Badia suffered from lengthy droughts and poor management before closure.	Protection of the sites is the responsibility of the government (through guards hired by the FDA office). However, with varied performance. For example, Menshiat El Ghieth site is well guarded whereas the overgrazed site at Shreif is not controlled.
<ul style="list-style-type: none"> <li>Improved rangeland areas (within the sites)</li> </ul>	RMG leader, herders' families, FDA	Activities were mainly undertaken by the FDA staff. Support from communities was – at most – through hired labour.	Guarding the protected sites is the responsibility of the FDA office. The office also issues grazing permits in the productive sites in North-East Badia.



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