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PROJECT PERFORMANCE ASSESSMENT REPORT

EGYPT

MATROUH RESOURCE MANAGEMENT PROJECT
(CREDIT 2504 - EGT)

February 26, 2004

Sector and Thematic Evaluation Group
Operations Evaluation Department

Currency Equivalents (annual official Exchange Rate averages)

Currency Name: *Currency Unit:*

1994	US$1.00 = 3.38	1998	US$1.00 = 3.39
1995	US$1.00 = 3.39	1999	US$1.00 = 3.39
1996	US$1.00 = 3.39	2000	US$1.00 = 3.47
1997	US$1.00 = 3.29	2001	US$1.00 = 3.97

Abbreviations and Acronyms

CAP	Community Action Plan
CDD	Community Driven Development
CEAs	Community Extension Agents
CGIAR	Consultative Group on International Agricultural Research
ERR	Economic Rate of Return
ES	Evaluation Summary
GIS	Global Information System
GOE	Government of Egypt
IAP	International Advisory Panel
ICARDA	International Center for Agricultural Research in Dryland Areas
ICR	Implementation Completion Report
IDs	Identification Cards
IFAD	International Fund for Agricultural Development
LC	Local Community
M&E	Monitoring and Evaluation
MALR	Ministry of Agriculture and Land Reclamation
MARC	Matrouh Adaptive Research Center
MRMC	Matrouh Resource Management Center
MRMP II	Matrouh Resource Management Project
NGO	Non-Governmental Organization
OED	Operations Evaluations Department
PAD	Project Appraisal Document
PCC	Project Coordination Committee
PCU	Project Coordination Unit
PPAR	Project Performance Assessment Report
QSA	Quality of Supervision Assessment
SRMAs	Selected Range Management Areas
WID	Women in Development

Fiscal Year

Government: January 1 to December 31

Director-General, Operations Evaluation	:	Mr. Gregory Ingram
Director, Operations Evaluation Department	:	Mr. Ajay Chhibber
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OED Mission: Enhancing development effectiveness through excellence and independence in evaluation.

About this Report

The Operations Evaluation Department assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, OED annually assesses about 25 percent of the Bank's lending operations. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons. The projects, topics, and analytical approaches selected for assessment support larger evaluation studies.

A Project Performance Assessment Report (PPAR) is based on a review of the Implementation Completion Report (a self-evaluation by the responsible Bank department) and fieldwork conducted by OED. To prepare PPARs, OED staff examine project files and other documents, interview operational staff, and in most cases visit the borrowing country for onsite discussions with project staff and beneficiaries. The PPAR thereby seeks to validate and augment the information provided in the ICR, as well as examine issues of special interest to broader OED studies.

Each PPAR is subject to a peer review process and OED management approval. Once cleared internally, the PPAR is reviewed by the responsible Bank department and amended as necessary. The completed PPAR is then sent to the borrower for review; the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the OED Rating System

The time-tested evaluation methods used by OED are suited to the broad range of the World Bank's work. The methods offer both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. OED evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (more information is available on the OED website: http://worldbank.org/oed/eta-mainpage.html).

Relevance of Objectives: The extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). *Possible ratings:* High, Substantial, Modest, Negligible.

Efficacy: The extent to which the project's objectives were achieved, or expected to be achieved, taking into account their relative importance. *Possible ratings:* High, Substantial, Modest, Negligible.

Efficiency: The extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. *Possible ratings:* High, Substantial, Modest, Negligible. This rating is not generally applied to adjustment operations.

Sustainability: The resilience to risk of net benefits flows over time. *Possible ratings:* Highly Likely, Likely, Unlikely, Highly Unlikely, Not Evaluable.

Institutional Development Impact: The extent to which a project improves the ability of a country or region to make more efficient, equitable and sustainable use of its human, financial, and natural resources through: (a) better definition, stability, transparency, enforceability, and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Institutional Development Impact includes both intended and unintended effects of a project. *Possible ratings:* High, Substantial, Modest, Negligible.

Outcome: The extent to which the project's major relevant objectives were achieved, or are expected to be achieved, efficiently. *Possible ratings:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Bank Performance: The extent to which services provided by the Bank ensured quality at entry and supported implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of the project). *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

Borrower Performance: The extent to which the borrower assumed ownership and responsibility to ensure quality of preparation and implementation, and complied with covenants and agreements, towards the achievement of development objectives and sustainability. Possible ratings: Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

Summary

The impact of Community Driven Development (CDD) is of particular interest to the Bank given the large number of projects adopting this approach. The experience of Egypt's Matrouh Resource Management Project offers some important lessons for this type of intervention.

The main *objectives* of the project were to:

(i) implement a program of sustainable natural resource management in order to conserve the water, land and vegetative resources of the area.
(ii) alleviate poverty and improve the quality of life of the local Bedouin population. The underlying strategy was to develop a structure within the traditional tribal system that would encourage active participation by the local Bedouin community in the sustainable management of the natural resource base and in alleviating rural poverty.

There were seven main *components*:

(a) Water Harvesting and Watershed Management (US$8.0 million base costs) on about 6,000 feddans (one feddan equals 1.038 acres), including underground cisterns for drinking water and supplementary irrigation, and construction of dikes to slow surface runoff and reduce erosion.
(b) Rangeland and Grazing Management (US$1.8 million base costs) supporting the planting of trees and shrubs on 12,000 feddans of communal lands and over-seeding of some 2,000 feddans.
(c) Adaptive Research (US$3.3 million base costs) supporting the construction of research facilities at the Matrouh Resource Management Center (MRMC) to test and disseminate technologies and an agricultural training center to train staff. An international advisory panel was provided for.
(d) Extension and Training (US$4.4 million base costs) for the establishment of an effective agricultural extension service including a multimedia unit.
(e) Rural Finance (US$3.8 million), a pilot credit program as a special loan fund administered on behalf of GOE by participating banks.
(f) Project Management and Coordination (US$1.8 million base costs), including a Project Coordination Unit (PCU).
(g) Monitoring and Evaluation (US$0.6 million base costs).

OED rates outcome satisfactory, despite some concerns regarding project economics and thus efficiency; sustainability is rated likely, albeit with several concerns to be addressed by the follow-on project; and institutional development impact is rated substantial considering the very traditional Bedouin social environment the project had to deal with and the extent to which the project, after a slow start, moved ahead of other community-based projects in Egypt in promoting mechanisms for community interaction. Bank performance and borrower performance are both rated satisfactory.

A very slow project start resulted in many of the investments being made based on a truncated version of the eventual full consultation and planning process. However, the processes did eventually catch up and they now represent an important tested mechanism for consultation and prioritization with communities. It did not reach a full community-based development approach including community control over funds. Moreover, the support for women, while greatly strengthened during implementation over the appraisal proposal, remained relatively modest. However, progress with women's' components cannot be expected to be fast in such a traditional society.

There are some particular concerns about the on-going privatization of Bedouin rangelands, which has the potential to be both inequitable and a constraint to sustainable range management in a highly spatially and temporally variable low rainfall environment. A study is proposed to better understand the potential social and resource management impacts.

The experience of this project confirms several familiar lessons:

- Participatory approaches take time. They need an initial phase-in period of skills development and community interaction alongside sufficient investment incentives to motivate participation.

- Participatory approaches involving women in a highly traditional society are likely to take even longer to reach some minimum level of sustainability.

- Independent PCUs are tempting for immediate implementation benefits in a slow-moving bureaucracy, but they have a cost subsequently in terms of sustainability. They may be justified initially, under some circumstances, in a pilot demonstration of new processes if the alternative is failure. However, such a pilot still leaves the longer-term institutional questions unanswered and institutional sustainability lies at the heart of the development process.

- Addressing shorter-term welfare and poverty is an important precondition for ultimately addressing longer-term natural resource sustainability.

- Participatory development processes at the village level have the potential to improve all public services and reduce overall consultation burdens on the community. Yet, difficulties of coordination between programs often limit such processes to only one program, leaving others to follow different approaches with the same community. This is less effective and efficient.

Gregory K. Ingram
Director-General
Operations Evaluation

Contents

This report was prepared by Ridley Nelson, who assessed the project in February 2003 with assistance in the field with focus group meetings and analysis from Dr. Morsy Fawzy Morsy. The report was edited by William Hurlbut, and Helen Phillip provided administrative support.

Principal Ratings

	ICR	*ICR Review*	*PPAR*
Outcome	Satisfactory	Satisfactory	Satisfactory
Institutional Development Impact	Substantial	Substantial	Substantial
Sustainability	Likely	Likely	Likely
Borrower Performance	Satisfactory	Satisfactory	Satisfactory
Bank Performance	Satisfactory	Satisfactory	Satisfactory

* The Implementation Completion Report (ICR) is a self-evaluation by the responsible operational division of the Bank. The ICR Review is an intermediate OED product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

	Task Manager	*Division Chief*	*Country Director*
Appraisal	Bachir Souhlal	Ngozi Okonjo-Iweala	Ram Chopra
Midterm	Nejdet Al Salihi	Petros Akilu	Mahmood Ayub
Completion	Marie-Helene Collion	Petros Akilu	Mahmood Ayub

Preface

This is a Project Performance Assessment Report (PPAR) for the Egypt Matrouh Resource Management Project for which a credit of SDR 15.9 million (US$22 million equivalent) was approved on May 27, 1993. The project closed on December 31, 2002, one year behind schedule. The final total disbursed was US$21.43 million equivalent to 97% of the original amount. An Implementation Completion Report (ICR) was submitted on June 3, 2003 (Report no. 26023).

The PPAR was prepared by the Operations Evaluation Department (OED) based on the Implementation Completion Report, the President's Report, the Development Credit Agreement, and review of Bank files. The project was discussed with Bank staff, beneficiaries, and government staff at the central, provincial and district levels. The mission was in the field for ten days and undertook field visits to the project area. Communities to be visited were selected at random with some subsequent accommodation to travel efficiency. Additional focus group sessions were carried out by a consultant — 14 focus groups in 7 communities, including both men and women. This was as a part of an associated OED Community-Driven Development study[1]. The cooperation and assistance of all stakeholders and government officials is gratefully acknowledged, as is the support of the staff of the World Bank Country Office in Egypt.

The ICR is generally clear, informative, and well presented, although it leaves some room for further drawing of lessons and, due to very recent changes, is now somewhat out of date with respect to the latest status on sustainability. The main reason for selecting this project for a performance assessment was to evaluate a project that was said to have performed well in the area of Community Driven Development (CDD), since this is a current study topic for OED. Moreover it was valuable to assess a project with a proposed follow-on project to understand a case of evolution in Bank and borrower thinking. Following standard OED procedures, the draft PPAR was sent to the borrower for comments before being finalized. These are appended as Annex B.

1. The mission was free to select and talk to any households it chose but, in the traditional Bedouin society, was unable to talk directly to women. However, with support from two lady assistants including a Bedouin lady enumerator, a focus group form of questionnaire was applied to a sample of women groups.

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The experience of this project confirms several familiar lessons:

- Participatory approaches take time. They need an initial phase-in period of skills development and community interaction alongside sufficient investment incentives to motivate participation.

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- Independent PCUs are tempting for immediate implementation benefits in a slow-moving bureaucracy, but they have a cost subsequently in terms of sustainability. They may be justified initially, under some circumstances, in a pilot demonstration of new processes if the alternative is failure. However, such a pilot still leaves the longer-term institutional questions unanswered and institutional sustainability lies at the heart of the development process.

- Addressing shorter-term welfare and poverty is an important precondition for ultimately addressing longer-term natural resource sustainability.

- Participatory development processes at the village level have the potential to improve all public services and reduce overall consultation burdens on the community. Yet, difficulties of coordination between programs often limit such processes to only one program, leaving others to follow different approaches with the same community. This is less effective and efficient.

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1. Background

1.1 The government of Egypt is attaching increasing priority to sustainable environmental management and particularly to natural resource conservation in arid areas for both welfare and environmental reasons. Egypt is aiming at an agricultural growth rate of over four percent. Agriculture's share of GDP has fallen to about 17 percent, but the sector remains important to the economy. Egypt is a food deficit country, importing nearly 40 percent of its food. Since the mid-1970s the agricultural sector has shown a reasonable growth rate of two percent per annum but the aim is to raise this substantially while ensuring sustainability. Although 90 percent of agricultural land is irrigated, a number of rainfed areas remain important including the Bedouin Matrouh coastal area and hinterland, especially for livestock and tree crops such as figs and olives.

1.2 In 1987 the Ministry of Agriculture and Land Reclamation (MALR) initiated a reform program including removal of crop area assignments and delivery quotas, abolition of feed and fertilizer subsidies, promotion of the private sector, raising land rents, privatization of public agricultural production companies, and liberalization of agricultural product prices. Impressive gains in output followed as farmers responded to improved technology and price incentives. The growth rate of 4 percent is expected to be achieved by the creation of new land through reclamation, increased yields of traditional crops, increased production from high-value horticultural crops, and increased livestock production exploiting a technical comparative advantage in the production of green fodder crops and a cost comparative advantage through low labor costs. The strategy places heavy reliance on the private sector for production, processing and marketing, and many services.

1.3 The MALR still has jurisdiction and control of many agriculture-related services, particularly in frontier areas like the Matrouh Governorate. The services are provided through the Department of Agriculture and Department of Veterinary Services, which are administratively responsible to the Governor but technically responsible to MALR.

1.4 The project area in Matrouh Governorate extends 320 kilometers along the Mediterranean coast from Ras-El-Hekma in the East to Salloum, on the Libya border, in the West, extending some 60 kilometers inland. Annual rainfall averages 147 millimeters along the coast and for about 20 kilometers inland, dropping rapidly inland to about 50 millimeters. There is estimated to be about 33 million cubic meters of surface runoff of which 23 million cubic meters is already harvested leaving about 8 million cubic meters useable still available, only enough to serve an additional arable area of around 7,000 feddans.[2] However, there are widely differing estimates on water availability. Some suggest much more is available.

1.5 Agriculture in the project area is essentially a livestock-tree crop system with cropped barley as a livestock feed. The land is government owned, but the government has recognized the de facto usufruct rights of established tribal territories and the usufruct system of land tenure has been sustained. However, a program to assign land titles has been underway for

2. One feddan equals 1.038 acres.

some years and about 25 percent of land holdings now have titles, thus Bedouin rangelands are gradually being privatized consolidating an on-going process of sedentarization of historically pastoral nomads. About 16 percent of the land is arable with about 113,000 feddans of orchards (the potential is considered to be about 200,000 feddans) and about 128,000 to 290,000 feddans of barley, depending on rainfall. About 43 percent of the area is dense to medium rangeland and about 38 percent is very sparse rangeland. There are about 630,000 small ruminants and 20,000 camels. Some farmers believe the rangeland is degraded, but most believe it is due to drought more than over-grazing.

1.6 The people in the project area are entirely Bedouin. There are six major tribes with 42 sub-tribes, each with about 7 to 9 clans (of about 5 to 7 generations depth). Within each clan there are typically about 50 households with between 7 to 12 hamlets. Nuclear families are rare. Very few any longer live in tents. They are now largely settled with a variable quality of permanent housing but still with movement of livestock to follow grazing needs. However, movement is much reduced over 30 to 40 years ago and degradation is said to have increased. There are long-established community conflict resolution structures and processes, such as camel committees or sheep and goat committees and well-established rules for the resolution of feuds.

1.7 **Objectives.** The stated objectives of the project were: first, *to implement a program of sustainable natural resource management in order to conserve the water, land and vegetative resources of the area;* and second, *to alleviate poverty and to improve the quality of life of the local Bedouin population.*

1.8 **Components.** There were seven main *components*:

(a) Water Harvesting and Watershed Management (US$8.0 million base costs) on about 6,000 feddans, including underground cisterns for supplementary irrigation of orchards, watering livestock, and drip irrigation, construction of small earth and stone dikes to slow surface runoff, for cereal and fodder production, construction of small cement dikes across wadis to slow flood flow and reduce erosion but also trap sediment. This component also included a Soil and Water Management Unit and a Climatological Subunit.

(b) Rangeland and Grazing Management (US$1.8 million base costs). The project supported the planting of trees and shrubs on 12,000 feddans of communal lands and the over-seeding of some 2,000 feddans of deteriorated rangeland. Provision was made for the establishment of small nurseries.

(c) Adaptive Research (US$3.3 million base costs). The project supported the construction of new research facilities at the Matrouh Resource Management Center (MRMC), which was to develop, test, and disseminate relevant technologies for the area's fragile natural resources, and an agricultural training center to train staff. An international advisory panel for MRMC was provided for.

(d) Extension and Training (US$4.4 million base costs) for the establishment of an effective agricultural extension service, including the creation of a small multimedia unit, Subject Matter Specialists, and support for Community Extension Agents (CEAs) through a nominal fee to help in extension and in the formulation and implementation of Community Action Plans.

(e) Rural Finance (US$3.8 million), a pilot credit program as a special loan fund administered on behalf of the government of Egypt by participating banks.

(f) Project Management and Coordination (US$1.8 million base costs), including a Project Coordination Unit (PCU).

(g) Monitoring and Evaluation (US$0.6 million base costs) to cover project activities at the community level, performance of the executing agencies, socioeconomic impact, and changes in the natural resources base.

1.9 The underlying strategy was to develop the structure within the traditional tribal system to make it an effective mechanism to encourage active participation by the local community in sustainable management of the natural resource base and in alleviating poverty. The approach divided the area into 38 Local Communities (LC) based on geographic and tribal profiles. Each LC selected a number of representatives. Each LC prepared and implemented a Community Action Plan (CAP). However, as noted above, due to delays in preparation of CAPs the PCU undertook implementation using preliminary "action contracts" until the CAPs were formulated. Therefore, the CAPs themselves did not directly contribute much to investment or beneficiary selection, although the early stages of the process sometimes did. They will, however, be very important as a basis for the second project.

2. Findings[3]

2.1 The project design largely delivered what it set out to do, but with a substantial, and appropriate, swing from the environmental objectives towards the welfare objectives — very little on rangelands, much more than was planned on water cisterns for domestic use and supplementary irrigation. There were a number of important achievements in agricultural or horticultural intensification. As a first community participation program, it made an important local and national contribution in learning processes for community driven development. Indeed, it has been a valuable national laboratory, albeit in a somewhat atypical (for Egypt) social and physical environment. However, there were a number of weaknesses that affected poverty focus, efficiency, and sustainability:

- The Community Action Plans (CAPs) were so delayed that they played a limited role in project interventions. While there was consultation, much of the project allocation was still done on the basis of top-down planning with consultation

3. The Bank Region largely concurs with the OED findings but points raised by them are noted at the relevant place in the report.

mostly with elected male leaders only. However, the CAPs were completed between 1996 and 2000 and will now play an important role in the follow-on project (para. 3.7).

- The total project cost per household of $3,167 ($33,060,000 divided by 10,440 households) was high relative to most projects globally,[4] although this is partly due to the high costs of household water cisterns for domestic water. There is a need to explore lower costs through cost recovery, institutional process savings, complementarity of support services, greater hand-over to communities, etc. (para. 3.17).

- Some assumptions in the economic rate of return analysis seem optimistic. First, no increased productivity is attributed in the without project scenario. Second, ICR estimates of adoption of improved technologies in barley and in forage appear optimistic against what is observed in the field. However, the substantial achievements, far beyond the target, in the provision of cisterns for domestic water is likely to have a high, although difficult to estimate, health and labor saving benefit. If it could be valued, this benefit would probably counteract any downward adjustment in the barley or forage productivity benefit streams (para. 3.18).

- Notwithstanding attempts to direct investments towards the disadvantaged, as is often the case with interventions related to land and water, the data still show some regressive bias towards the larger landowners (para. 3.12).

- The privatization of rangelands, which is being undertaken by Bedouin choice and with government support, is likely to make future improvements in rangeland management very difficult. There is also the risk of the poorer households losing land in a "land grab" (para. 3.32).

- There are questions about sustainability. First, the new government and community-level processes introduced (many of them quite late in the project) remain fragile and may not even achieve full sustainability by the end of the second project, particularly for elements related to development for women which are more difficult and started later. Second, recent substantial salary reductions have contributed to an alarming loss of staff, if not morale. Third, the future of the Matrouh Adaptive Research Center (MARC) is in doubt in the absence of an institutional "home" and yet adaptive research is still extremely important. Fourth, the re-absorption of the Project Coordination Unit (PCU) back into the parent departments is a sustainability "debt" from separating it in the first place that is still to be paid off (para. 3.25 to 3.33).

4. See OED report "The Next Ascent – An Evaluation of the Aga Khan Rural Support Program, Pakistan" Table C1 for some comparators. For example, the average for that program was about $385 per household over 5 years and for IFAD Pakistan Barani Project about $705 per household. IFAD's average globally was estimated to be about $420 per household.

Mostly, these weaknesses have been thoughtfully addressed in the follow-on project.[5]

LESSONS

- Participatory approaches take time. They need an initial phase-in period of skills development and community interaction alongside sufficient investment incentives to motivate participation.

- Participatory approaches involving women in a highly traditional society are likely to take even longer to reach some minimum level of sustainability.

- Independent PCUs are tempting for immediate implementation benefits in a bureaucracy, but they have a cost subsequently in terms of sustainability. They may be justified initially, under some circumstances, in a pilot demonstration of new processes if the alternative is failure. However, such a pilot still leaves the longer-term institutional questions unanswered and institutional sustainability lies at the heart of the development process.

- Addressing shorter-term welfare and poverty is an important precondition for ultimately addressing longer-term natural resource sustainability.

- Participatory development processes at the village level have the potential to improve all public services and reduce overall consultation burdens on the community. Yet, difficulties of coordination between programs often limit such processes to only one program, leaving others to follow different approaches with the same community. This is less effective and efficient.

FUTURE DIRECTIONS

2.2 For both the Bank and the borrower a number of issues warrant attention in the sector in the Matrouh Governorate for the future:

2.3 The quite detailed community-based processes for investment prioritization developed under the MRMP are different from the more traditional, more wholesale, approaches followed by other national programs such as the Social Fund and Shrouk. The application of the same or similar processes through the same groups for all programs would be much more efficient and would improve local, governorate, and national coordination. Coordination needs to be at *community* level as well as governorate and national levels.

2.4 The rangeland privatization currently underway with government support, while a complicated issue, has the potential to make improved rangeland management more difficult and to result in the poorer households and sub-clans losing land access. A study of this issue

5. At the time of writing the follow-on project was awaiting cabinet clearance.

is needed to clarify what ownership patterns are emerging and how reciprocal grazing arrangements are actually changing.

2.5 Adaptive Research remains extremely important for the future. The Project Appraisal Document (PAD) for the second project seems to suggest that technologies are now largely known and it is now more an issue of extending them to farmers. A similar view is expressed in the 2001 IFAD Formulation Report. This OED PPAR differs on that assessment, finding many remaining unresolved technical questions and technical opportunities still needing substantial further adaptive research.

2.6 Representative farmers should be on the Project Coordinating Committee to enhance local involvement.

2.7 The need for individual or family IDs to receive investment assistance in such a participatory project should be questioned since the community itself should be able to identify those who should not receive a benefit (the issue of "double-dipping"). But, in any case, if IDs are really required by government, all potential beneficiaries should be assisted to get IDs quickly so that there is no risk of a bias against the poor.

2.8 Processes need to be further refined to target the poor. Poverty targeting is never easy in agriculture because of the link between physical land and water investments and land asset ownership, but ways can be found to target poverty-focused investments. Such approaches may have some costs in the context of a physical watershed catchment context, but they should have benefits in a social/livelihoods context.

2.9 Maintaining staff incentives for the next project will be extremely important for sustainability. The success of the first project has been largely due to skilled and unusually dedicated staff. It would be most unfortunate to see this dissipate.

3. Analysis

OUTCOME

3.1 Outcome is rated **satisfactory**. The project was relevant and effective although, with a borderline ERR, of somewhat marginal efficiency depending on the value assigned to domestic water and the associated health benefits and the water transporting burden on women and children, including children's education.

In the end the project met more objectives related to welfare than to environment (defining cisterns as predominantly welfare investments). But this shift was relevant to people's needs.

RELEVANCE

3.2 Relevance of the project is assessed as **substantial.**[6] The objectives were clearly consistent with both the Bank's and borrower's strategy, both at the time and now. However, the trade-offs between the natural resource management objective and the poverty objective were not fully faced at appraisal. The greater focus on poverty now intended under the follow-on project probably would have been better also in the first project to deal aggressively with poverty first, enabling a transition to more longer-term environmental concerns in the second project once immediate short-term human needs were met.

EFFICACY

3.3 Overall, efficacy—the extent to which the project objectives were achieved taking into account their relative importance—is rated as **substantial**. However, within this rating there are definitional questions related to the extent to which particular investments contributed predominantly to one or other of the two main objectives — environment or poverty/welfare. In this first project, the environmental objective appears to have been given prominence in project design. Yet with the substantial increase over what was planned in investment in water cisterns, largely for domestic or livestock use, and the substantial reduction in treatment and management of rangelands over what was planned, it appears that the project swung away significantly from the priority environment objective towards the poverty, welfare, and growth objective. (It is argued here that the substantial increase in investment in water cisterns represents more a poverty intervention than an environmental intervention.[7]) Thus, longer-term environmental impact was less than intended, and shorter-term welfare impact more than intended. But this was probably an appropriate redirection and it has been sustained into the proposed follow-on project. In the absence of any significant gains in rangeland management beyond the forage planting, achievement of the longer-term environmental objectives was modest.

Physical Achievements

3.4 The Impact Study of July 2001 found the following: 58 percent of potential beneficiaries believed they had increased incomes as a result of the project; large and medium farmers gained more than small farmers (54 percent of small farmers estimated net income increase against 31 percent for medium farmers and 23 percent for large farmers); adoption of the improved barley variety varied widely across Districts but was about 50 percent of crop

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6. One relevance question for which there is so far insufficient data to answer is whether project investments such as domestic and livestock water sources that enable people to remain in this very dry area are even appropriate. They are appropriate if average past rainfall is sustained but arguably inappropriate if the recent three years of drought and earlier dry spells were to be revealed to be the early stages of a longer-term decline in rainfall. So far rainfall data does not support such a finding. Unfortunately, meteorological stations are insufficiently spread inland to pick up this type of information in the inland rangeland zone.

7. For water investments to qualify as serving predominantly environmental objectives they would be expected to impact on the hydrological cycle itself in some way — which was not the case in this project.

producers, somewhat less for small producers, somewhat more for large producers[8]; 58 percent of households were supported by the project to get one or more water harvesting structures — 43 percent of those supported were small farmers, 29 percent medium, and 28 percent large. About 51 percent of the total sample benefited from project supported horticulture improvement with the largest share (about 40 percent) going to small farmers. About 36 percent of the total sample benefited from the livestock improvement technologies disseminated by the project. About 40 percent of the total sample benefited from range improvement technologies, but there were few changes in grazing management practices. However, the survival rates of planted forage on 66% of Selected Range Management Areas (SRMAs) were reported to be over 70% which is good for such an environment and fodder units produced are estimated at many times the appraisal projection. Beneficiaries transplanted over 400,000 seedlings of fodder shrubs, 47 percent by large range holders, 39 percent by medium, and 14 percent by small.

3.5 Data on actual outcomes or impacts are limited. Survey data and field observation show that there has been an increase in water storage. Observation at treated sites suggests some improvement in erosion control and land management generally. Remote sensing imagery suggests some improvement in vegetative cover but, surprisingly, more improvement in the inland range areas than the intermediate zone and, given the lack of progress on range management, this is probably not an attributable project impact. Thirty-eight Community Action Plans were implemented, the same number as planned, but as noted, these were initiated quite late so they only partially impacted the community processes and investments. Some 1.2 million cubic meters in water storage facilities were constructed, exceeding the appraisal target by about five times. 4,236 feddans of crop and rangeland benefited from dike construction, a little over half the total dike-fed area planned under both water harvesting and watershed management components. Shrubs were planted on 18,224 feddans and over-seeding carried out on 4,710 feddans of rangeland (about 50 percent higher than planned). 6.4 million fodder shrub seedlings were transplanted, some in large fenced areas, some in small fenced areas, and some in barley fields.

3.6 The project got off to a very slow start, disbursing only 19 percent of funds by the fourth year. This was partly because implementation had been embedded within the technical departments of the Governorate and the PCU had no authority. While fixing this through creating a semi-independent PCU with all the implementation capacity gave the project a new lease of life at a critical juncture, it also leaves it with a substantial institutional burden for the future in relation to sustainability and the challenge of re-absorption back into the technical departments in due course.

The community processes put in place involved substantially more participatory consultation than other programs in Egypt. Such participatory processes could contribute to all programs while enhancing operational efficiency and coordination at the community level.

Efficacy of Community Processes

8. Mission interviews in the field did not support such a high percentage.

3.7 As noted above, the establishment of the community processes mostly came too late. Moreover, the focus group discussions for this assessment in the field suggested that, at the start, most communities did not fully understand the approach. It was a new concept and staff themselves were not familiar with it either. The focus goups also suggested that, with increased understanding, for the second project communities are tending to chose younger more educated persons to represent them. There were delays in training so that the community planning exercises only started in the last two to three years. The majority of investments financed under the project were therefore not selected on the basis of the full community involvement but through a shorter, less documented, process. This arose mainly from pressures to disburse funds. However, it could be argued that quick investments were needed not simply for disbursement *but to sustain community and leader interest in the development of the processes*. Indeed, a number of NGOs globally do follow a practice of quickly putting in a community investment selection upfront as the initial enticement.

3.8 The structures and processes put in place under this project were arguably the first partial community development project processes attempted in Egypt. The mission held discussions with managers in a number of other projects and programs for comparators — including the Social Fund, the Population Project, and the Shrouk Project, and, at the governorate level, with health and education ministry staff. Based on these comparators the Matrouh Resource Management Project has clearly progressed much farther than these other programs in the establishment of participatory processes although not as far as a full Community Driven Development (CDD) process, and, inevitably, at considerable cost — such participatory processes are staff intensive and not cheap. As a result there is, in fact, a significant disparity between the detailed interaction and planning that has been going on under MRMP and the more arm's-length, wholesale process under most of the other programs. For efficiency, all programs could benefit from a common (rather than parallel) community interaction prioritization process, perhaps with special-interest subgroups, particularly to support the poorer households and women. A common participatory process would be more efficient at the community level by reducing meetings and addressing coordination and trade-offs and thus, ultimately, spreading program overheads.

3.9 Questions remain about the extent to which the participatory approach was really put in place *sustainably,* and about the extent to which it reached a depth to at least begin to address the poverty aspect. In assessing performance on this due regard needs to be given to the exceptionally traditional nature of Bedouin society and the place of women. Realistic expectations about rates of progress in such a traditional society are important. The focus group discussions suggested that more attention to socio-economic characteristics at the outset would have helped, including, for example, better understanding of the strong and quite widespread Islamic concerns about credit and some informational campaigns to develop and present acceptable options on this issue. The project supported the creation of local community committees that were project-specific, but with overlap with the existing community decision-making structures. The representatives were selected by common consent rather than elected and have clearly been, if not entirely the elite, certainly mostly the less poor. While the project consultative and planning processes do appear to have put some pressure on the traditional system to avoid "elite capture" and to accommodate the needs of the disadvantaged, the data quoted in this report on the extent to which the distribution of

investments still did not match the distribution of households across land-holding size classes shows that it was not entirely successful. The concerns raised in this report about range privatization is part of the same issue. For the future, these committees (LCs) remain vulnerable in the absence of a project funding flow and a "home" within the established decision-making system. A follow-on project will help to consolidate their status and move further on mechanisms to empower the disadvantaged[9]. *The objective should be to consolidate a permanent place for such community driven planning with an equity focus, linked to the existing decision system and able to challenge and support, but not supplant, that system.*

Efficacy of Matrouh Adaptive Research Center

3.10 The center carried out some important work during the project in a number of areas, including barley[10] and forage production, livestock genetic improvement, urea treatment of straw, improved pruning and biological pest control in olives and figs, and applying demand-driven adaptive research procedures. Some of this work has continued since the project close[11] while funds are awaited from the follow-on project. An International Advisory Panel (IAP) consisting of four experts — in soils and water, rangeland management, animal husbandry, and farming systems — made a very important contribution in the early stages of MARC development. However, much adaptive research work remains to be done to address further location-specific technical questions and to further develop improved varieties.[12] With respect to knowledge transfer, based on farmer responses, only 4% named mass media and sources other than personal contact as their source of technical information. There appears to be room for substantial improvement in this area. Appropriateness of content and relevance of messages needs investigation. Are the current off-the-shelf technologies really as applicable and adapted and risk accommodating to the range of soil and water micro-environments as they are claimed to be?

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[9] The borrower comments (Annex B) that in the second phase representatives of local communities will be in the Project Coordination Committee as well as other local and regional committees to enhance local involvement.

10. The ICR says that a notable achievement was the selection of the improved barley variety Giza-126. But this variety was actually released earlier than the project although the extension of this variety to farmers was strongly supported by the project.

11. The mission observed a workshop with farmers related to selection of awnless barley varieties organized by MARC with assistance from an ICARDA scientist.

12. In the forage research, one weakness is that the main experiments have compared forage growth inside and outside enclosures using cutting at different heights and times. While this gives useful information about forage productivity under the defined management conditions (which may only partially model livestock harvesting) the comparative productivity of forage outside the fence is still not known because this control is harvested to an unrecorded extent by livestock outside the fence. (In dryland forage research with an environmental focus there is always the risk that volume of standing forage is equated with productivity. Often - although by no means always because of the benefits of animal impact - the most visually impressive groundcover is evident in 100% closure plots, but these will have given zero productivity!)

Efficacy In Reaching Women and the Poorer Households

Notwithstanding what seem to have been genuine attempts by the project and communities to direct investments towards the disadvantaged, because of land ownership patterns the data suggests that most types of investment still went disproportionately to the less poor.

3.11 With respect to the extent of *women's involvement*, the Matrouh Bedouin society is possibly the most conservative social situation ever addressed by a Bank project.[13] Initially, there was no Women in Development (WID) component to speak of. A WID component was finally initiated in 1996, but even then the budget was too small and the program far too tentative for a society in which women have played no significant role in decision-making. The women's component was later expanded substantially in an agreement between the borrower and the Bank, expanding the areas of support, adding a credit revolving fund, and increasing training.

3.12 With respect to reaching the *poorer households*, since the project interventions were almost entirely aimed at individually owned assets, such as the provision of privately owned water cisterns, dikes on private land, and horticulture trees, rather than at communal assets, such as rangeland, targeting of investment grant support was important since there was little in the investments of a communal nature as a backstop for the poor. In mission discussions the community leaders claimed that they had attempted to direct support towards the disadvantaged, and there was anecdotal evidence that this had occurred. However, the data suggest this was not entirely successful. For example, water harvesting structures, the most important element in the project support, were distributed 43 percent to small farmers, 29 percent to medium farmers and 28 percent to large farmers (see Impact Study 2001). However, the percentage of small farmers in total beneficiaries is actually 54 percent, medium farmers 26 percent, and large farmers 20 percent. (These important comparisons between distribution of the different size categories of farmers and the distribution of benefits were not made either in the Impact Study or the ICR, although the data were there.) Similarly, beneficiaries from horticulture improvement were distributed across the total sample in the ratio of 41 percent small farmers, 31 percent medium, 28 percent large. Thus, the distribution of water harvesting structures and horticulture support failed to match even the distribution of land asset ownership in the population and thus was actually somewhat regressive with respect to equity, particularly since large farmers already had, at the outset, more cisterns or reservoirs and orchard trees than small farmers[14].

13. For example, the Bank OED mission (a man) and the local consultant (a man) were completely unable to talk to any Bedouin woman in the field.

14. The Bank Region notes that, under Phase 2 during the CAP process, communities are being asked to define and agree criteria to describe the poorer households in a transparent manner. Lack of legal documentation can represent additional barriers which it is hoped can be addressed by coordinating with GOE services such as health, education, etc. The borrower comments (Annex B) that benefits distribution is not determined only by economic conditions as it fluctuates over time in the region because of rainfall uncertainty but also by technical issues, etc.

Lack of ID cards appears to have prevented some poor from benefiting from certain investments

3.13 The poverty focus appears to have been somewhat affected by the need for identity cards (IDs) for households to be able to receive public funding support, at least for certain investment items. IDs can be individual or family, but they rely on birth registration, which tends not to be done by the poorer households or those in the more remote areas — who also tend to be poorer. While the project made a major effort to creatively get around the government ID requirement, a significant number of households probably were not able to access some types of benefits for lack of an ID. Work is underway already to try to address this issue for the follow-on project.[15]

Failure of the Credit Component

3.14 The credit component never got off the ground except, eventually, in the form of a small LE260,000 revolving fund established for the WID program, which achieved a 98 percent recovery rate. Negotiations with local banks fell through due to lack of collateral and the Islamic proscription against paying interest. The problems were largely predictable, and, as is evident from the files, were raised by staff during preparation and appraisal, but they seem to have been largely ignored by Bank management. Lack of credit is an important constraint to agricultural development in the area although some credit is obtained through the agricultural cooperatives. It is unfortunate that, following the earlier failure, more work was not done under the first project in exploring this issue further since, under the planned second project, it is now proposed again to initiate a study of the issue and to develop recommendations for how to proceed further. Thus, after more than 10 years, planning for this component under the second project is really no further forward than it was at the start of the first project.[16] Often insufficient attention is given to savings as well as lending. In this livestock-based society safe and trusted savings opportunities may be even more important than being able to borrow.

After ten years there has been no progress on credit and the new project still has to carry out a study. This could have been done earlier. The study should not neglect the forgotten side of credit — savings.

15. The purpose of using IDs in this way — which affects other projects also — is largely to avoid "double dipping." However, with the type of community consultation processes established under this project the community itself and the elected leaders should be able to spot any "double dipping" without the help of IDs.

16. Presumably what is needed is some form of micro-credit arrangement either through producer associations or with joint and several liability within community groups, with service fees upfront in lieu of interest rate, which is not a burden on government, and with no reliance on collateral which would call for close association with community groups to enhance lender knowledge. The borrower comments (Annex B) that the project conducted two studies on the implementation of the Credit Component during the preparation of the second phase. The component will be implemented independently by a consulting firm.

Monitoring and Evaluation and Management

3.15 As is so often the case, monitoring and evaluation started too late. Once operational, the M&E Unit established databases for each community, utilized GIS technology, and carried out a number of studies including the Impact Study. The Impact Study undertaken in the last year of the project was of some value, but in the absence of quantitative baseline data its contribution was limited. Analysis was focused largely on percentage adoptions as opposed to quantified impacts, so it could not show incremental gains in productivity. Impacts on women were not adequately measured in view of the restrictions on interactions for female members of the household. The M&E Unit was not adequately staffed to handle the WID aspect. For the follow-on project, now that the M&E Unit is well established, the baseline survey has already been completed. Notwithstanding initially weak M&E, project management was strong in the second part of the project.

EFFICIENCY

3.16 Efficiency is rated **substantial,** but with reservations — some elements of the benefit stream may have been unrealistic and costs per household were high relative to other projects. With an overall ERR estimated in the ICR at 13 percent, very similar to the 12 percent estimated at appraisal, there is limited room for downward shifts in benefits. Sensitivity analysis suggests that, if the ICR calculated benefits fell about 20 percent, the ERR would fall below the opportunity cost of capital.

There are a number of reasons — related to adoption levels, productivity, and attribution — why the ERR may be overestimated. But uncounted environmental and social welfare and health benefits probably counterbalance this.

High Costs per Household

3.17 For Egypt as a whole, and for the Matrouh Governorate, there is an issue of depth versus coverage. This was a high-cost project in terms of total project costs per household assisted. At $3,166 ($33.06 million for 10,440 households) over 9 years it is at the top of the range compared with other natural resource management projects globally.[17] In particular, the SRMAs were very costly on a household basis and, due to the need for the minimum 25-feddan forage land, went to the wealthier households, although sub-clan arrangements seem to have spread those benefits somewhat further. While dryland areas like Matrouh are particularly challenging and therefore might warrant above-average levels of expenditure *initially* to achieve some

17. See Table C1 in OED's 2002 Pakistan Aga Khan Rural Support Program Evaluation for some global comparators which mostly range from about $300 to $1,000 per household. IFAD averages about $420 per household over about a six-year project period. The borrower comments (Annex B) that costs are not high in relation to the physical and socio-economic circumstances of the area. OED notes that there is certainly a case to spend substantial amounts to catch up with other areas better endowed for infrastructure. However, it is still, comparatively, a high figure.

threshold of action, the low productivity of such areas might also suggest that only below-average levels of expenditure per household could be justified.

The Economic Analysis

3.18 Five areas in the economic analysis are of concern. *First*, the economic analysis carried out for the ICR does not accommodate any "without project" yield increases[18]. There has been a steady trend of yield increases in barley, which one would have expected to continue through the project period. In other words, it is unlikely that all yield gains can be attributed the project[19]. *Second*, the rangeland benefits estimated in the ICR at LE400 per feddan are high for such a dry area and these constitute about half the aggregate benefit stream.[20] Moreover, there remain a number of technical questions about forage, for example, salt content in atriplex, tannins in acacia, and lack of progress with rangeland management regimes. *Third*, the adoption levels of improved barley assumed, which reached approximately half the cultivated barley area (project staff claim 45,000 feddans, the economic analysis says 56,880 feddans), seems optimistic given the low numbers of households in randomly selected communities interviewed by the mission who acknowledged the use of improved barley varieties in recent years. However, some of this is explained by the three recent dry years, which focus groups suggest has impacted on both farm and off-farm productivity and incomes. But also relevant in assessing the realism of the agriculture benefit stream is that there has been an intermittent lack of availability of appropriate barley varieties from the Ministry of Agriculture. Furthermore, the improved technologies are much more location-specific than is modeled in the simplified ICR analysis. For example, the second cross-cultivation recommendation contributing to the claimed higher yields is profitable in shallower harder soils but is risky due to wind erosion in sandy soils and not recommended there. *Fourth*, the cost stream in the economic analysis provides for no maintenance costs beyond the project period. At least the substantial rangeland benefits would need continued technical support for many years to come and also, probably, some of the crop technology benefits, for example horticulture. *Fifth*, there are questions of attribution of benefit streams, for example, the barley variety Giza 126, which has been so important in increasing barley productivity, was actually released in 1986, well before the project,

18. The Bank Region notes that the number of farmers using the barley package in any "without project" scenario would have been small, that seed availability would have been limited, and that data was weak to make such assumptions. OED argues that it may not have been as small as is suggested and that the pre-project trend would have given some indication.

19. It is noteworthy that barley farmers still quote yields in terms of ratio of grain harvested to seed, a practice that is usually consistent with land surplus or at least relatively recent land surplus and low yields. (It is a yield measurement practice that persisted in many parts of Europe well into the 18th century.) Its persistence here may be indicative even now of a phenomenon of plantable land surplus in rainfall surplus years. It is perhaps also indicative of such wide annual variability of plantable moist land due to rainfall fluctuations and very shallow surface depressions that good seed (saved or purchased) can become the constraint in high rainfall years.

20. At the level of benefits implied by the ICR model, which suggests that forage exhibits four times the profitability of barley, one would expect to be seeing a very substantial shift from barley to forage shrubs on barley land. This is not happening. The Bank Region agrees that LE 400/fedan is likely on the high side but notes that data was scarce.

suggesting that at least some of the benefit streams from increased barley production belong elsewhere.

3.19 *However*, against the above factors that would lower the rate of return, the ERR estimated in the ICR does not include the more difficult to calculate environmental off-site and beneficiary health and some welfare impacts, the latter from the substantial increase in relatively clean domestic water from cisterns including the social impact of reduced water-collection labor[21]. Such benefits would shift the benefit stream back in a more positive direction. For example, water cisterns in some strategic locations have enabled the placing of schools where a school was not possible before and increased domestic water releases children from water carrying burdens so that they can go to school. Also, there was evidence from field visits that some additional private investment had been triggered by infrastructure investment such as roads. Again on the positive side, while there is a very limited land market because of modest levels of land adjudication, a few land price increases quoted to the mission did seem to reflect quite optimistic expectations of future land returns. Finally, the economic analysis for the new project suggests a satisfactory rate of return. Weighing all the above factors it is concluded that the true ERR is difficult to estimate but probably marginally above the opportunity cost of capital.

Cost Recovery

3.20 Initially cost recovery levels, at 60%, proved too high for the poorer households, at least for the water harvesting investments. This changed when the World Food Program provided 40% leaving a 20% beneficiary contribution. While high levels of contribution enable greater spread with limited resources it also selects against the poorer households. Some form of differential contribution, as suggested by the IFAD 2001 Formulation Report for MRMP II may be an option but differential contributions can also be divisive in community-based approaches.

INSTITUTIONAL DEVELOPMENT

3.21 Institutional development is rated **substantial** both at community and government institutions level. It was particularly impressive relative to other community development programs, which clearly exhibited significantly less community/public service interaction. However, at the community level it was still only the first step towards the sustainable establishment of community-led decision-making and implementation processes. Much remains to be done under the second project, particularly to enable the poor to have a voice, to develop processes and skills for greater involvement of women, and to develop longer-term

21. One circumstance in which the benefits of an increased number of cisterns for human or livestock use might be questionable would be if the recent string of dry years signaled a sustained decline in average rainfall or deteriorated rainfall distribution since this would suggest a strategy more focused on reducing human reliance on these marginal areas. However, such a rainfall trend in dryland environments usually cannot be picked up in less than about ten to fifteen years and is not at present evident in the rainfall data available, although this data is very limited for the drier inland zones.

community resource seeking and resource planning capacity independent of immediate project funds availability. Under the project, notwithstanding the electing of community members, the traditional mechanisms still held substantial influence but were boosted in their capacity to support project interventions through additional processes, the CAP planning procedure, interactions with government, and skills development.

Given the exceptionally traditional Bedouin society, progress with community participation was impressive. But CDD is still only at the early stages. Much remains to be done with women's involvement, and better poverty targeting is needed.

3.22 There was substantial skills development with the improvement of the capacity of staff in a new and important skills area related to community-driven development. While many of these staff may move on in due course within the ministry, spreading these skills is important for rural development in Egypt more broadly. Indeed, projects like this could be seen as valuable training grounds and laboratories for innovative approaches to rural development.

3.23 The Project Coordination Committee appears to have worked quite well in coordination between ministries with rural responsibilities.[22] The mission met members in other sectors who had found it useful.

3.24 No NGOs were used in the project, though the project did support the formation of an Olive Producers and Processors Association and a Women's Development Association and is now trying to support an association for fig producers. Beyond these and the local Cooperatives, unlike other parts of Egypt, there appear to be no active NGOs in the project area with a rural productivity focus.

SUSTAINABILITY

3.25 Sustainability is rated **likely,** although there are a number of sustainability concerns and, in the absence of the follow-on project, it would not have been rated as likely[23]. There is little doubt that many of the investments, particularly those in cistern water storage will be maintained. They are highly valued and many existing cisterns have been maintained for two thousand years — since Roman times. The same almost certainly applies to wadi water control structures. However, there are other sustainability concerns.

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22. As an example of coordination through the PCC, at one meeting there was
and coordinate the visits of mobile health clinics to the project communities and how to manage parasite campaigns.

23 The Bank Region notes that many of the sustainability concerns have been addressed in the second phase. The issue of staff salaries is under discussion with GOE.

3.26 *First*, it is still very early to assess sustainability at all given the barely consolidated community processes. The community groups established generally functioned well towards the end of the project in the decision-making related to project funding. It is somewhat less clear that, in the absence of a project, they would remain active in developing further ideas for community improvement and in seeking other resources; a shift which one would hope for if the community processes were fully embedded. However, there are a few hopeful signs. For example, at a number of the community schools established, two of which were visited by the mission, communities have established a system of collecting monthly teachers remuneration.

3.27 *Second*, the WID activities were very recently started under the first project and have much further to go to reach sustainability. Indeed, the WID activity will quite possibly require a third project to reach sustainability, even if other activities reach that point earlier.

3.28 *Third*, with the second project about to commence, there have been substantial reductions in project staff salaries not simply in absolute terms but relative to other public agencies. The skills built up under the first project were rapidly eroding at the time of the PPAR mission. The government is aware of this and is promising action.

3.29 *Fourth*, with respect to environmental sustainability, there has been no significant achievement in enhancing the sustainability of rangeland management, yet rangelands are the largest portion of the project area, and, being generally upstream within watersheds, lie at the heart of overall land sustainability. Moreover, any action initiated on rangelands under the follow-on project is likely to be a slow process and unlikely to achieve sustainability within one project period.

3.30 *Fifth*, technology remains extremely important but the future of the Matrouh Adaptive Research Center (MARC) is in doubt. It still has no institutional "home" and, at the time of the mission, the number of senior research staff handling component programs had fallen from five to one. While links with ICARDA[24] have been useful and continued links are highly desirable, significant reliance on a CGIAR Institute, with funding issues of its own, is not realistic. The Desert Research Center would appear to be an obvious "home".

3.31 *Sixth*, the Project Coordination Unit (PCU) which, by separating it from the ministry, was able to substantially enhance performance *during* the project, now faces the inevitable challenge of re-absorption both in terms of responsibilities and staff. Generally, OED has found such separate units to have negative sustainability implications even if, for the short project period, they have performed well and benefited from a degree of independence. The follow-on project offers a breathing space on this issue. But it is only a breathing space and does not solve the eventual problem. The design of the

The privatization of rangeland has the potential to be inequitable and will present problems for community management of grazing. A study is suggested.

24. The mission was able to interact in the field with an ICARDA barley breeder working on awnless barley who had found the cooperative work with the project and the farmer interaction in variety selection valuable but who also expressed concern about sustainability.

follow-on project has, appropriately, taken account of this issue in a number of ways including focus on better links with departments at the governorate level in Matrouh to enhance post-project sustainability.

3.32 Related to the issue of rangeland improvement and sustainability related to grazing management, the privatization of rangelands by the Bedouin, which is currently underway with support from the government, is likely to make the optimal use of rangelands very difficult, although such issues are complex. With periods of as much as three to four years of drought affecting both forage and water, and with highly variable spatial distribution of rainfall patterns across dryland range areas, management in large blocks with agreed rules of grazing timing and access is likely to be easier than multiple private reciprocal arrangements between large numbers of individual or subclan owners with individually nonviable grazing blocks. Trading of privately owned grazing rights is likely to be very difficult in practice with so many owners especially in the absence of a system of stock routes. While the shift to privatization of rangelands may have gone too far to halt, the implications of this shift warrant quite urgent study to understand to what extent the poorer Bedouin sub-clans or households are loosing land access, what options remain for reciprocal arrangements, and how technically *and socially* such areas might be better managed for sustainability in the future. It may be that there is a rather small window of opportunity to put in place community grazing arrangements before private ownership precludes a number of choices. In a few countries such rangeland privatization in dry land environments has degenerated into little more than a "land grab" by the wealthy, notwithstanding the existence of traditional social safety nets and reciprocity. This issue warrants a study to better understand what is happening socially, especially to range access for the poor, and what the resource management options and impacts might be.

Water Balance

3.33 Based on experience elsewhere, the mission went to the field with some concerns about water structures up-stream taking water from those lower down and thus, in effect, shifting water uphill from one set of beneficiaries to another. The planning systems in place do attempt to address that concern and to some extent appear to have done so (e.g. by capacity and height of spillway design) But the extreme volumes of peak flow and low frequencies make such planning difficult — highly dependent on such parameters as rainfall intensity and frequency assumptions. The IFAD report rightly notes the importance under MRMP II of planning technology and skills in this area. More meteorological stations inland will be important.

BANK PERFORMANCE

3.34 Bank performance was **satisfactory,** although the almost inevitable slow start could have been better forecast and the problems more promptly addressed. This was an innovative project establishing community based development processes for the first time with few other experiences in Egypt to draw from. Preparation and appraisal was generally sound. During preparation participatory rapid rural appraisal techniques were used. It was generally acknowledged by government staff and beneficiaries that the Bank had brought ideas and skills on community development approaches but there had been also some learning from one

or two precursor projects. The International Advisory Panel on research was important in the transfer of experience.

3.35 Strangely, this project never had a formal Staff Appraisal Report, only a President's Report. However, there was a report called an Implementation Project File in which the 30-page Technical Annex followed a standard Staff Appraisal Report outline, including legal agreements. In this particular case there is no evidence that this drift from normal procedures caused any of the weaknesses identified, and peer reviewer comments were forthcoming and were handled in the usual way. However, potentially such process deviations could reduce exposure to management and peer review comments, at least on issues outlined more fully in the appraisal report than in the shorter President's Report. It is a deviation not to be recommended.

3.36 In any project that takes nearly 9 years to closing there must be questions about early planning and readiness. While borrower performance in the initial three years was not strong, such community-based interventions almost invariably do take a long time. There do appear to have been unrealistic expectations about the speed with which such new processes could be introduced and skills developed, but excusable perhaps in a first country project in this new direction of community participation.

3.37 Supervision was generally satisfactory and flexible. In 1997, a Quality of Supervision Assessment (QSA) had rated some of the supervision aspects as marginal, including focus on development impact, actions taken and follow-up, and relations to donors and other stakeholders during supervision. However, these issues were addressed subsequently and two Mid-term Reviews were undertaken. There was good continuity in the supervision team and close involvement of the country office.

3.38 With respect to the follow-on project, the Bank appears to have absorbed the lessons of the first project very well. Somewhat more focus on the issue of land policy and on the need for strong continued adaptive research would have been desirable.

BORROWER PERFORMANCE

3.39 Borrower performance is rated **satisfactory** on balance. However, implementation over the first four years was very slow with very little implementation of the watershed activities. At that time there was patchy project management commitment to the community approach. But, following the first Mid-Term Review, progress accelerated rapidly under changed management. The project introduced a significant change in the government's approach to communities in the area. The Ministry of Agriculture was able to support the implementation of activities outside its sectoral capacity. The fact that the Minister of Agriculture was also Deputy Prime Minister and party General Secretary assisted coordination. The project was provided by government with a core of very capable and committed staff in a center not widely favored for residence, many of whom are still in place.

Annex A. Basic Data Sheet

EGYPT MATRUH RESOURCE MANAGEMENT PROJECT

Key Project Data (Amounts in US$ million)

	Appraisal Estimate	*Actual or current estimate*	*Actual as percent of Appraisal estimate*
Total project costs	29.53	33.06	112
Credit amount	22.00	21.90	99

Project Dates

	Original	*Actual*
Initiating memorandum	02/1991	02/1991
Board Approval	05/1993	05/1993
Effectiveness	02/1994	02/1994
Closing date	12/2001	12/2002

Staff Inputs (staff weeks)

	Actual Weeks	*Actual US$000*
Preappraisal	34	115.3
Appraisal/Negotiations	62.1	230.6
Supervision*	147.4	534.5
Completion**	9	19.4
Total	252.5	899.8

Mission Data

	Date (month/year)	No. of persons	Specialization represented[1]	Performance rating	
				Implementation Status	Development objectives
Identification/Preparation	02/05/1991				
Identification/Preparation	05/12/1992				
Appraisal/Negotiation	11/06/1992				
Appraisal/Negotiation	04/19/1993				
Supervision 1	06/09/1993	1	Sr. Nat. Resource Spec (1)	1	1
Supervision 2	12/10/1993	5	Sr. Nat. Resource Spec (1); Sr. Agriculturalist (1); Sr. Irrigation Engr* (1); Social Scientist (1)	1	1
Supervision 3	07/04/1994	5	Sr. Nat. Resources Spec. (1); Sr. Agriculturalist (1); Credit specialist (1); Sr. Irrigation Engineer (1); Social Scientist (1)	HS	HS
Supervision 4	11/04/1994	1	Sr. Nat. Resources Spec (1)	S	S
Supervision 5	04/15/1995	5	WID Specialist (1); Nat. Resource Mgt. Spec. (1); Agriculturalist (1); Social Scientist (1); Civil Engineer (1)	S	S
Supervision 6	01/26/1996	6	Nat. Resource Mgt. Spec. (1); Agriculturalist (1); Agricultural Economist (1); Social Scientist (1); Civil Engineer (1); Environmental Spec. (1)	S	S
Supervision 7	07/25/1996	4	Agric. Econ. (Cons.) (1); Sr. Irrig. Engineer (1); Environmental Spec. (1); Agriculturalist/ Range (1)	S	S
Supervision 8	10/24/1997	3	Sr. Irrigation. Engineer (1), Social Scientist (1), Agriculturalist (1), Ag. Economist (1)	S	S
Supervision 9	05/13/1998	4	Team Leader/Sr. Agricult. (1); Pr. Irrigation Engineer (1); Sr. Agriculturalist (1); Sr. Soc. Scientist (1)	S	S
Supervision 10	11/23/1998	5	Pr. Irrigation Engineer (1); Sr. Agriculturalist (1); Sr. Soc. Scientist (1); Sr. Natural Res. Spec. (1)	S	S
Supervision 11	06/07/1999	5	Prin. Irrig. Engineer (!); Senior Agriculturalist (1); Natural Resource Sec. (1); Sr. Social Scientist (1); Social Scientist (1)	S	S
Supervision 12	11/07/1999	3	Principal Irrig. Engineer (1); Senior Social Scientist (1); Senior Agriculturalist (1); Social Scientist (1); Sr. Natural Resources (1)	S	S
Supervision 13	05/31/2000	5	Irrigation Engineer (1); Social Scientist (1); Agriculturist (1)	S	S
Supervision 14	11/15/2000	5	Sr. Irrigation Engineer	S	S

	Date (month/year)	*No. of persons*	*Specialization represented*[1]	*Performance rating*	
				Implementation Status	*Development objectives*
			(1), Agriculturalist (1); Agr. Economist (1), Snr. Social Scientist (!), Financial Mgmt Specialist (1)		
Supervision 15	06/15/2001	2	Agr. Services Spec. (1); Natural Resource Spec. (1); Farmer Org. Spec. (1); Water/Soil Res. Mngmt. (1); Social Scientist (1)	S	S
Completion	02/07/2003		Agr. Economist (1); Natural Resource Spec. (1)	S	S

Annex B. Comments from the Government

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