

a

**IFAD**

**INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT**

**Evaluation Committee – Forty-third Session**

Rome, 7 April 2006

**KINGDOM OF MOROCCO**

**TAFILALET AND DADES RURAL DEVELOPMENT PROJECT**

**COMPLETION EVALUATION**

**EXECUTIVE SUMMARY**



**TABLE OF CONTENTS**

<b>CURRENCY EQUIVALENTS</b>	<b>iii</b>
<b>ABBREVIATIONS AND ACRONYMS</b>	<b>iii</b>
<b>MAP OF THE PROJECT AREA</b>	<b>iv</b>
<b>EXECUTIVE SUMMARY</b>	<b>1</b>
<b>I. INTRODUCTION</b>	<b>1</b>
<b>II. PROJECT DESIGN</b>	<b>2</b>
<b>III. IMPLEMENTATION STATUS</b>	<b>3</b>
<b>IV. PROJECT PERFORMANCE</b>	<b>4</b>
<b>V. IMPACT ON RURAL POVERTY</b>	<b>6</b>
<b>VI. PERFORMANCE OF THE PARTNERS</b>	<b>8</b>
<b>VII. OVERALL ASSESSMENT AND CONCLUSIONS</b>	<b>10</b>
<b>APPENDIX</b>	
<b>SELECTED FINDINGS FROM THE EVALUATION SURVEY</b>	<b>1</b>



### CURRENCY EQUIVALENTS

#### Exchange rate in 1994

1 Moroccan dirham (DH)	=	USD 0.108
1 USD	=	DH 9.2

#### Exchange rate in 2006

1 Moroccan dirham (DH)	=	USD 0.107
1 USD	=	DH 9.3

### ABBREVIATIONS AND ACRONYMS

AFESD	Arab Fund for Economic and Social Development
DAHA	Hydro-agricultural Development Division of the Ministry of Agriculture, Rural Development and Fisheries
IsDB	Islamic Development Bank
KfW	German Credit Institution for Reconstruction
OE	Office of Evaluation
OPEC	Organization of the Petroleum Exporting Countries
ORMVA	Regional Authority for Agricultural Development
WUA	water users' association



**Source: IFAD**  
*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.*

## KINGDOM OF MOROCCO

### TAFILALET AND DADES RURAL DEVELOPMENT PROJECT

#### COMPLETION EVALUATION

##### EXECUTIVE SUMMARY

###### I. INTRODUCTION

1. Following the closing of the Tafilalet and Dades Rural Development Project, a completion evaluation mission from IFAD's Office of Evaluation (OE) visited Morocco from 11 September to 12 October 2005.<sup>1</sup> The evaluation report elaborates on the mission's major findings. A final workshop was held in Morocco in February 2006 to discuss the recommendations and prepare the groundwork for the agreement at completion point.

2. Located in North Africa, Morocco is home to 30.6 million people, 43% of whom live in rural areas. The population growth rate has been declining for the past ten years and currently stands at 1.6% per annum. The infant mortality rate has fallen in the past decade but remains very high at 47.9 per 1 000 (2004), reaching 56.7 per 1 000 in rural areas. More than 12 million people, or 42% of the population, are illiterate. During the period 1998-2002, average growth rates for GNP and inflation were 1.67% and 1.75% respectively, compared with averages of 4.06% and 5.14% during 1990-1997. Average income per capita is USD 1 310, placing Morocco among the world's low- and middle-income countries. According to government estimates, the poverty rate declined from 16.5% in 1994 to 14.2% in 2004 (national average). However, during the same period the poverty rate in rural areas increased from 23% to 25%. This relatively high rate of poverty is reflected in a 23.6% stunting rate among children in rural areas.

3. The Tafilalet and Dades Rural Development Project was approved by IFAD's Executive Board on 20 April 1994 and entered into effect on 27 March 1995 as a single project financed by two separate loans. The loans – provided directly to the implementing agencies, the Regional Authorities for Agricultural Development (ORMVAs) of Tafilalet and of Ouarzazate with a sovereign guarantee – closed in 2004 and 2005 respectively.<sup>2</sup> Total project cost was USD 52.5 million, financed by IFAD (USD 22.3 million), the Islamic Development Bank (IsDB) (USD 7 million), the Organization of the Petroleum Exporting Countries (OPEC) Fund for International Development (USD 5.6 million), the Moroccan Government (contribution of USD 15.8 million) and the beneficiaries (contribution of USD 1.5 million in the form of labour). The Arab Fund for Economic and Social Development was the cooperating institution and was responsible for project supervision. The project was implemented by the Tafilalet and Ouarzazate ORMVAs, represented in the field by agricultural development

---

<sup>1</sup> The mission was composed of Messrs A. Abaab (agricultural economist and mission leader), A. Abdelguerfi, (agricultural pastoralism specialist) and M. Daoudi (rural engineering specialist); and Mrs K. Rivière (agronomist). A wrap-up meeting was held on 12 October 2005 at the Office of the Secretary-General of the Ministry of Agriculture, Rural Development and Fisheries. Mr F. Felloni, Evaluation Officer, OE, participated at the beginning and the end of the mission. In addition to conducting interviews with Ministry of Agriculture officials in Rabat from 12 to 14 September 2005, the mission visited the field from 15 September to 8 October 2005. Prior to the mission, an approach paper was prepared and submitted to stakeholders (May 2005); a reconnaissance mission (June 2005) was conducted by Mr Felloni; and a rural survey was carried out in both project regions (August 2005) under the direction of Mr M. Mahdi (École Nationale d'Agriculture de Meknès). The evaluation team would like to thank the Moroccan technical offices at the central and regional levels for their support to the mission.

<sup>2</sup> Specifically, on 19 May 2004 and 31 October 2005.

centres. The Ouarzazate ORMVA received funding from the German Credit Institution for Reconstruction (KfW) for support to irrigation water users' associations, but KfW was not a direct partner of IFAD or IsDB nor was OPEC.

4. The approach followed in this evaluation is in line with the methodology defined by IFAD, which employs three main criteria and a rating system. The criteria are as follows: (i) the project's impact on poverty reduction; (ii) project performance as measured by relevance of objectives, effectiveness of implementation and efficiency of achievements; and (iii) performance of project partners. The mission consulted numerous technical and socio-economic documents as well as general documentation and scientific publications relating to the project's areas of intervention. During the mission, interviews were conducted with many institutional actors at the central, regional and local levels involved in project oversight and/or implementation, and with a sample of beneficiaries in both project regions. The mission also benefited from the results of a rural survey conducted by OE in August 2005 in both project regions. This survey covered 17 grass-roots organizations selected to represent the different types of cooperatives and associations formed or supported by the project and 274 households sampled randomly, including households in and outside the project to provide the evaluation with a better guide to impact attribution.

## II. PROJECT DESIGN

5. The main objectives of the project were to: (i) improve crop and livestock productivity (under extensive and intensive management) and protect environmental resources; (ii) construct basic rural infrastructure to improve mobility and health; (iii) develop and strengthen grass-roots organizations; and (iv) promote the empowerment of women.

6. The project included numerous components, which, for simplicity's sake, can be classified into three main categories: (i) development and rehabilitation of irrigation and rural infrastructure (77% of project costs, of which 69% was for irrigation); (ii) development of extensive livestock management on rangelands, development of intensive livestock management, and anti-desertification measures (13%); and (iii) agricultural extension, support to grass-roots organizations and income-generating activities, particularly for women (11%).

7. Covering the contiguous Tafilalet and Dades regions, the project area was located in south-east Morocco along the southern slopes of the Atlas Mountains, a part of the pre-Saharan region. The project area measured 90 300 km<sup>2</sup> (12.7% of the national territory), of which 80 500 km<sup>2</sup> was in Tafilalet and 9 800 km<sup>2</sup> in Dades. In the Tafilalet ORMVA region, the project covered the province of Errachidia and the Bni Tadjit *cercle* (an administrative division within the province of Figuig); in the Ouarzazate ORMVA region, it covered the Dades Valley to the north-east of the province of Ouarzazate, which is part of the Upper Draa watershed. The climate is continental and arid. Precipitation ranges from 70 mm in the extreme south, at Erfoud, to 290 mm in the extreme north, at Imichil. These climatic conditions preclude the practice of rainfed agriculture and necessitate the use of irrigation.

8. The rural population in the project area was estimated at 732 000 in 1993, or some 92 420 families. At the time of project formulation, more than half of the farmer and herder families in the project area were estimated to be living below the poverty line (according to World Bank studies), then set at USD 225. The project was to benefit: (i) 42 500 small farmers in poor areas in the irrigated sector, with high population density (through improved water and land management); (ii) 30 000 inhabitants of isolated mountainous areas (through road works); (iii) 14 000 inhabitants of disadvantaged villages (through improved access to drinking water); (iv) 7 720 small herders and 120 herders and breeders of D'man sheep; (v) 1 260 women farmers and 9 600 women and young people (by means of raising of goats and sheep, including D'man sheep, and literacy and other training through the development of outreach centres).

9. The project implementation period was marked by a difficult national macroeconomic juncture – particularly between 1998 and 2002 when GNP grew very slowly (1.67%) compared with the prior annual growth of 4.06% in 1990-1997 – and by a period of drought that placed significant constraints on project interventions. The adverse effects of drought were particularly felt during 1997-2000.

10. On the positive side, the project's start-up coincided with a new phase in the country's political life, characterized by an accelerated political liberalization beginning in the second half of the 1990s. In parallel, the participatory approach emerged as an instrument to ensure locally managed sustainable development. In terms of the regional economic context, new prospects for overall growth have been opening up more recently in Tafilalet and Dades, mainly thanks to the promotion of new economic subsectors such as tourism and film-making.

11. No major changes were made to the project's design, general orientation or components. Minor changes were introduced during project implementation in response to practical field issues, donor requirements and recommendations by support missions.

### III. IMPLEMENTATION STATUS

12. Benefiting from a two-year extension of loan closure, the project's physical implementation rates were generally good, and in some cases exceeded the component targets. Concerning the first category of components (development and rehabilitation of irrigation and rural infrastructure) in Tafilalet, seven floodwater perimeters were rehabilitated (9 170 ha), 72 pumping stations were created or rehabilitated, and approximately 55 km of *khettaras*<sup>3</sup> were upgraded. This corresponds to virtually 100% of the target. Instead, in Dades the achievement for the rehabilitation of irrigation canals was 34% but completion is planned for end-2006. The delay can be attributed to the 2.5% financial contribution that KfW requests of beneficiaries prior to commencing work. The project created 24 irrigation water users' associations (WUAs) and six federations of irrigation WUAs in Tafilalet, and 86 irrigation WUAs in Dades (100% of target for both) – all set up before the beginning of infrastructure works. In Dades, potable water, flood protection and transportation infrastructure work is close to completion, and has resulted in 16 water supply systems of the 17 projected (the remaining one is now under way), construction of close to 12 km of dykes to protect waterways and rehabilitation of a 15 km stretch of the Toundoute-Iminoulaouen road. Since projections overestimated this stretch by 4 km, a balance of close to USD 333 000 remains under the OPEC loan.

13. For the second category of components (livestock and natural resource protection), more internal distinctions need to be made. Concerning extensive livestock development, the project created 16 pastoral cooperatives (100% of target), placed 110 200 ha of rangeland in fallow (67%) and planted 4 600 ha of fodder crops (71%). Regarding intensive livestock development, seven herder cooperatives were organized to improve D'man sheep stock in Dades, bringing together 166 herders with 8 140 head of sheep; 98 breeders joined the National Association for Sheep and Goat Raising (ANOC) and 9 169 head were selected (141% of target). In Tafilalet, five new cooperatives for D'man sheep stock were created and six were strengthened, bringing together 611 herders with 15 095 head of sheep; 66 breeders joined ANOC and 8 296 animals were selected (415% of target).

14. Within the natural resource protection activities, the achievement rate for work to stabilize sand dunes using cross-ruling by palm branches was 444% of the original project target, while for the installation of fibre-cement sheeting it was 85%.

15. Finally, in terms of the third category of components (extension, grass-roots associations and income-generation for women), in Tafilalet, 29 women's cooperatives were set up (242% of target) for D'man sheep breeding, with 1 330 members having received 2 660 sheep on subsidized credit. In

---

<sup>3</sup> *Khettaras* are traditional underground drains built to capture groundwater and provide water for irrigation.

Dades, under the goat milk programme, extension and equipment provided to the Skoura station enabled it to double its production capacity. In Tafilalet, 113 women's centres were equipped – compared with the target of 29 (390%) – and 14 women monitors were trained. In Dades, a women's section was set up within the outreach division of the Ouarzazate ORMVA and 13 women's centres were rehabilitated and equipped – compared with the target of four. Activities planned with respect to institution-building for both ORMVAs were generally completed overall (equipping of agricultural development centres and provision of vehicles, computers and training). The number of awareness-raising and training sessions for farmers and women exceeded targets set for both ORMVAs and covered all priority subsectors.

#### IV. PROJECT PERFORMANCE

16. **Overall relevant objectives.** The project was aligned with the National Irrigation Programme, the agricultural policy favouring rainfed cropping areas introduced in 1988, the Five-Year Plan for 2000-2004 (assigning priority to mountains, oases and border areas) and the 2020 Rural Development Strategy, the National Date Palm Plan, and the National Rangeland Development Strategy. The project was also consistent with the poverty reduction strategy adopted by IFAD following a programming mission to Morocco in 1983. Moreover, the project area (pre-Saharan) was also indicated as a strategic area in the 1999 country strategic opportunities paper for Morocco. The project's overall goals to improve living conditions (providing access to drinking water and building roads to open up isolated areas) were highly relevant in an area where basic infrastructure indicators were among the lowest in the country, representing a major constraint for economic and social development and rural poverty reduction.

17. **Some weaknesses in the design.** In view of IFAD's specific mandate, some weaknesses can be identified in the original project design: (i) the rather generic definition of the target group (categories of beneficiaries, such as pastoralists or women farmers, were identified, but such categories are broad, and important disparities exist within each group); (ii) the large number of components and subcomponents to be carried out (equivalent to two or three typical IFAD projects) with limited identification of synergies and linkages among components and practical means to achieve such synergies. In addition, there was also a risk embedded in the choice of the rangeland management approach drawn from another IFAD project in the eastern region.<sup>4</sup> At the time the Tafilalet and Dades project was formulated, the implementation of that project had just started and the available empirical experience was still limited.

18. **Effectiveness.** Despite the difficulties encountered during implementation and at the ten-year point, the project's overall objectives were achieved. To take them in turn, and considering the taxonomy of the objectives provided in paragraph 5, there was an increase both in agricultural productivity, for example an increase in oil production yields (+30%) and in vegetable garden produce yields (up to +80%), and in livestock productivity (under intensive management), such as an increase of +14% in fertility of D'man sheep and a 11% reduction in mortality. Concerning the protection of environmental resources, water management measures for flood control were found to be appropriate. Results were more limited in sand dune fixation and rangeland fallow. In the former case, this was due to the absence of accompanying biological protection measures. Concerning rangeland fallow, project data show that only on a small proportion of surfaces (24%) were fallow agreements adhered to. This was due to a number of conflicts over a complex traditional system of access to rangelands, which was challenged by progressive individualization.

19. The construction of basic rural infrastructure meant easier (in terms of time) access to transportation and to safe water in the respective communities. The development of grass-roots organizations led to the nurturing of a number of strong WUAs for both irrigation and potable water

---

<sup>4</sup> The Livestock and Pasture Development Project in the Eastern Region.

and of pastoral cooperatives that respectively maintain irrigation and water infrastructure and organize and represent the interests of their members vis-à-vis public institutions. Through the activities dedicated to them (women's centres, cooperatives), women had greater economic and income-generating opportunities, although the percentage of women covered in the area was very low (around 5% in the Dades region).

20. **Practical targeting approaches.** The definition of the target group given by the project formulation was quite loose (there can be significant social differentiation within the envisaged categories of beneficiaries). However, during implementation, the project agencies adopted pragmatic approaches, which led to satisfactory outcomes in terms of avoiding the systematic exclusion of poorer households. Two typologies deserve some discussion. In the case of development and upgrading of collective infrastructure (irrigation, potable water), project activities covered all the households (including the poorest ones) in the selected sites. This seems to be a valid criterion as the exclusion of wealthier households from collective infrastructure was both economically impractical and undesirable. In the case of services rendered to individuals (training and extension), the data collected by the evaluation suggest that poorer households were not excluded systematically, because extension packages were generally simple and affordable also to more disadvantaged people.<sup>5</sup> Nonetheless, the notion of targeting should not be confined to the identification of poor areas, subgroups or individuals. It should include the planning of a set of integrated activities that respond to the needs of those areas, subgroups and individuals. From this "spatial integration" point of view, results were less satisfactory. Potential synergies among components were not always exploited (for example, canals were rehabilitated without protection from sand; irrigation schemes were developed without implementing water management extension activities in the same sites, thus increasing the risk of soil erosion), and in several cases this meant that activities were dispersed over a large area.

21. **High efficiency in the main components.** Efficiency was examined by comparing unit costs (per hectare or per person) with benchmarks set by other similar projects or interventions in Morocco and the Maghreb. In some cases, a simple cost-benefit comparison was made. An overall high level of efficiency emerges in the case of the main components, due to the good technical skills of project staff and the selected private enterprises. For example, irrigation development costs were comparable with or lower than typical subsectoral benchmarks; households were served with potable water at very competitive production costs (USD 0.22/m<sup>3</sup> up to 40 m<sup>3</sup> against USD 0.28/m<sup>3</sup> up to 24 m<sup>3</sup> and USD 0.90 to USD 1.35 and beyond, for comparable services provided by the National Authority for Potable Water); and the costs of training women in artisanal activities were very low when compared with expected returns (an average cost of training of USD 37/woman in Tafilalet and USD 44/woman in Dades, it being estimated that, following training, three fourths of the women could have expected gains of between USD 50 and USD 112/month).

22. **Lower efficiency in smaller components.** Other subcomponents (smaller in terms of share of project costs) were less efficient. These include the milk and cheese production station under the goat milk programme (plant capacity was used at 3%), some D'man breed selection efforts (due to limited market responsiveness), and the inadequate progress achieved in crop processing and conditioning. There are common denominators to these experiences: (i) their weak technical/financial feasibility had not been fully studied during formulation; and (ii) these activities extended beyond the ORMVAs' mandate and consisted of direct involvement of public authorities in enterprise activities (product processing and marketing) where the implementing agencies did not have comparative advantages.

---

<sup>5</sup> To take two examples, the percentage of small (2 ha or less) landholding households to the number of participants in the extension groups was comparable with their proportion to the total population (80-90%); the D'man sheep subcomponent in fact targeted vulnerable women: no fewer than 60% were widowed or divorced (thus potentially lacking sources of income and agricultural labour supply).

## V. IMPACT ON RURAL POVERTY

23. Due to the lack of specific monitoring and evaluation of project activities, the evaluation team derived its conclusions by triangulating among several sources such as documentation, the OE quantitative and qualitative rural survey, direct observations and field discussions.

24. Through its various components, the project led to an improvement in material and financial household resources. According to survey results, project beneficiaries were more likely than the control group to report an improvement (and conversely, less likely to report a reduction) in income-generating opportunities and in the availability of animal feed and water for irrigation (with some exceptions in the case of Tafilalet), which are essential elements in supporting household livelihoods (see Appendix, Table 1). Although women-related activities had a limited quantitative outreach, they were nonetheless successful in increasing women-controlled income flows, which could reach 20% of the average annual income per capita in Morocco.

25. The project had a significant impact on human resources in terms of access to formal education, technical skills and health. For instance, school enrolment rates rose in the commune of Iminoulaoune after the road was built (30% for boys and 2% for girls before the road, compared with 73% and 35% respectively after the road); and the school absenteeism rate dropped for girls with the introduction of potable water supply, which had important repercussions on health and hygiene practices. The considerable time saved on activities such as maintenance of *khetaras* and fetching water could be applied towards income-generating activities. In the case of potable water, around two to three hours per day could be saved. As a term of comparison, the same amount of time spent embroidering would fetch around USD 34 per month, which is close to 30% of the annual per capita income in Morocco.

26. **Social capital.** The project made it possible to strengthen: (i) the remarkable, if still incipient, development of associations and cooperatives, favouring participation and ownership of local development by beneficiaries and their representative institutions; (ii) solidarity and information exchanges among the members of associations; (iii) the development of professional organizations partnering with the administration for local development; and (iv) the creation of a forum for dialogue and voicing of grievances, competition for farmers and herders, and emancipation for rural women. Socio-economic differences among the members of associations and cooperatives may be reflected in disparities in decisional power and in access to services. While these grass-roots organizations are not perfect democracies, in several instances it was observed that very poor households could access core services, for example the provision of potable water, water for irrigation or the vaccination of livestock.

27. The project's impact on household economic and food security can be measured by eliciting the perceived household consumption trends. According to the OE survey, about 80% and 60% of project respondents in Tafilalet and Dades respectively reported improvements in food security against only about 40% and 30% in the control groups (Appendix, Figure 2). In addition, according to the results of qualitative interviews with women beneficiaries, the income-generating activities dedicated to women led to a marked improvement in nutrition and diet diversification in their households as protein and micronutrient-rich types of food (meat, eggs, milk and vegetables) became more easily accessible.

28. Although no precise technical studies of environmental impact were available, field discussions and visits to the sites suggested significant areas of impact. Examples include flood protection for farmland in areas with soil constraints, reductions in solid waste in waterways and in reservoir siltage, and technical and cultural heritage protection (valleys, oases, *khetaras*). In the case of soil fertility, the survey data showed that households covered by the project were less likely to report soil fertility loss than control households (although no soil testing exercises were conducted). Instead, regarding pastures, the vast majority of respondents reported a decrease of their availability without strong

differences between project and non-project observations, suggesting that this might indeed have been an area of more limited progress (Appendix, Table 2).

29. **Impact on institutions.** The analysis here concentrates on the increased capacity of public institutions to deal with poor households in the project area. Within the two ORMVAs, the project clearly had an impact on officers' operating capacities through improvements in mobility, skills and technical resources. Working methods and approaches were conceptualized, formalized and improved, particularly in the areas of agricultural extension, rangeland development and organizations of farmers and herders. By strengthening the women's division of the Tafilalet ORMVA and by creating a women's division in the Ouarzazate ORMVA, the project lent momentum to the existing strategy to develop extension activities to benefit women. These were important achievements in spite of the already noted limited quantitative outreach.

30. ORMVA staff were exposed to consultation with grass-roots associations and cooperatives. Changes in attitudes and mentality require time but some progress was already visible by project end. In the particular domain of irrigation and water management, the traditional practice was for scheme design and implementation to rely exclusively on the engineer, with beneficiaries preferences relegated to second place. Some change was observed in the Dades region, where a number of irrigation WUAs started to take part in validating the design of activities affecting them, and in monitoring the results. In some cases, this kind of grass-roots participation enabled changes to be made to water management schemes to better adapt them to beneficiaries' needs and priorities.

31. **Gender.** The evaluation found that rural women in the project area were beginning to develop an awareness of their social and economic roles and opportunities. Women's cooperatives had been created, and new opportunities for accessing technical skills and income sources had been provided, albeit to a limited number of beneficiaries. On the other hand, some cooperatives and associations set up to promote women continued to be directed almost exclusively by men, who cited, as a reason for the creation of women's organizations, the decline of activity by women in farming operations following several dry years, together with unemployment among the few educated women in villages.

32. **Long way to sustainability.** The sustainability of the impact mentioned above remains contingent on future developments in the socio-economic and socio-political environment (economic growth, strengthening of the democratic process, development choices and strategies), on the capacity for action and adaptation on the part of local actors and on steps taken by the administration to build on results. Among the positive predictors of sustainability is the partnership approach pursued by both ORMVAs with associations and cooperatives, which is expected to raise project users' motivation, enthusiasm and the sense of ownership. Another important asset is the sound financial position of all WUAs visited (although the financial resources that they raise normally cover recurrent costs and only rarely provide for the depreciation of equipment). Risk factors include: (i) the fragility of pastoral cooperatives, which are still largely dependent on technical, financial, material and human resources provided by the ORMVAs; (ii) the limitations of cooperatives as associations initiated by the ORMVAs under the project; these are often small artisanal enterprises that are increasingly faced with market competition; (iii) the nature of the close outreach methods practised by the ORMVAs under the project, which require significant human and material resources that may be lacking now that the project has ended and/or upon the departure of experienced technicians under the new voluntary retirement programme offered to government officials; and (iv) the absence of integration and synergy among components on selected sites.

33. **Innovation and replicability.** Process and technical innovations emerged during project implementation. The concept of participatory development was a major procedural innovation. In spite of several shortcomings, the capacity of ORMVA staff for dialogue with grass-roots organizations clearly improved. In the case of small-scale irrigation, "participation" seemed initially to be restricted to financing and maintenance of infrastructure by the users (a restrictive definition

proposed in the project design). Nevertheless, in Dades a new phenomenon started to emerge. Some irrigation WUAs began to take part in validating the scheme design and in monitoring implementation and outcomes. The encouraging results led the Hydro-agricultural Development Division of the Ministry of Agriculture, Rural Development and Fisheries (the “Ministry of Agriculture”) to choose Ouarzazate to organize a national seminar on the participatory approach to irrigation (2004) with a view to country-wide replication.

34. In terms of technical innovations, two cases were observed. First, in implementing the potable water component, the Ouarzazate ORMVA opted for water supply through individual household connections, whereas the vision in the 1990s (and the original project design) called for supply by a public hydrant. Thanks to the project and its activities in 29 project sites aimed at extending access to all households, including the poorest, this option was ultimately selected and expanded at the provincial level. Household connections dramatically changed the way homes operated and saved time for women by reducing their workloads. Second, water-saving technical options were the object of a technical assistance grant.<sup>6</sup> Some interesting combinations of pooling of water from *khettaras* in order to rationalize water use were tested, but the first trials took place too recently and the technique needs to be further experimented and assessed before its replication on a larger scale could be initiated.

35. **Overall impact assessment.** Despite a complex design, a rather large number of components (not always combined with a clear integrative strategy) and a vast intervention area, the main project objectives were generally attained, with some exceptions for the rangeland management component. Innovative approaches and methodologies have started to be introduced by the ORMVAs. The evaluation mission noted significant areas of impact, particularly concerning the increase or protection of physical and financial assets, improvement in food security and diversification of diet. Nevertheless, the project’s achievements remain vulnerable for many components, essentially because grass-roots organizations and cooperatives, the backbone of the social capital generated by the project, will inevitably depend on the support of the ORMVAs and will have to face market competition. While better linkages with the private sector, financial institutions and NGOs are important ingredients for an exit strategy, it is also clear that prolonged technical and financial support by public authorities is called for. A rapid exit by public agencies and the lack of a strategic vision for comprehensive sustainable development in these disadvantaged regions constitute serious threats to the sustainability of the activities and innovations introduced by the project in Dades and Tafilalet.

## VI. PERFORMANCE OF THE PARTNERS

36. In the case of IFAD, the project was well aligned with the overall development priorities and concerns for the project area and with IFAD strategic documents. However, some ambiguity was noted in the definition of the target group, and the design was not entirely clear on the spatial integration of the numerous components, perhaps a sign of an overambitious formulation. IFAD carried out a number of support missions during implementation to compensate for the scant number of supervision missions carried out by the cooperating institution. The reports produced by these support missions were of commendable quality from an analytical point of view, and it was clear from discussions with project staff that these missions had stepped up activities and contributed to improved overall project implementation.

37. The cooperating institution, the Arab Fund for Economic and Social Development (AFESD), conducted a very limited number of supervision missions (three in about ten years). In spite of this

---

<sup>6</sup> This is a USD 1.6 million grant to the Centre for Advanced Mediterranean Agronomic Studies for testing effective methods of participatory water management, originally meant to be implemented in Armenia, Egypt, Morocco and Tunisia.

limited contribution, the ORMVAs reported to the evaluation mission their satisfaction with AFESD's responsiveness in terms of financial management. In selected cases, however, budget overruns were authorized that necessitated verifications and corrections within IFAD. Also, project supervision by AFESD was limited to physical and financial aspects, which was inadequate for a project of this scale. Given the insufficient input to approaches and methodology, physical programmes could not always be linked to objectives in an integrated way in time and space.

38. Due to their internal organization and resource availability, the involvement of other cofinanciers (OPEC, IsDB) in implementation support was limited and they tended to provide physical and financial monitoring mainly to the component that they were directly financing (separate progress reports and monitoring missions). In spite of the contacts that cofinanciers maintained with the Government and ORMVAs, their contribution to problem-solving and strategic issues was less substantial. The IsDB did not take an active part in rescheduling activities and funds after the mid-term evaluation mission, leading to the failure to finance a dam that had been identified and studied.

39. The overall partnership among cofinanciers was characterized by the low level of harmonization among the programmes financed by the various donors and among implementation and monitoring procedures. To all intents and purposes, there were three separate projects in terms of financing, planning, implementation, procedures and monitoring. For instance, no benefit was drawn from the IsDB's presence in Morocco to coordinate monitoring and support activities, and no joint mission or workshop took place to discuss implementation issues.

40. **Government support.** The support provided by the Hydro-agricultural Development Division (DAHA) of the Ministry of Agriculture contributed to the positive results. The procedures requiring submission of the study's proposals to DAHA before commencing studies and works ensured additional control, particularly in terms of technical specifications in contractual documents. However, in the case of other central divisions at the Ministry (for example those responsible for livestock, plants and extension), contacts and exchanges of information with the project were much less frequent, so that the project did not have the benefit of sufficient guidance, nor was project experience adequately disseminated in other regions of the country.

41. The performance of the implementing agencies – the ORMVAs<sup>7</sup> – can be considered satisfactory, as evidenced by the physical goals achieved, disbursement rates and relevance of most components carried out. This demonstrates that both ORMVAs possess sound competencies for managing donor-funded projects (in particular, hydro-agricultural projects). The evaluation survey suggested that the beneficiaries had an overall positive assessment of the degree of attention paid to them by project officials, perhaps with some diverging points from members of pastoral cooperatives in Tafilalet and irrigation WUAs in Dades (Appendix, Tables 3 and 4). Nevertheless, a number of weaknesses interfered with efforts made by the ORMVAs, in particular the limited spatial integration of activities, the unsatisfactory outcome of the monitoring and evaluation system, which failed to produce consistent impact assessments across the components, and the weak partnerships with other public institutions.

42. The agreements made by the ORMVAs with the Provincial Office for Support Services and the Provincial Office for Youth and Sports did not generate a particularly collaborative dynamic, and the provincial offices did not significantly improve the operation of centres renovated and equipped under the project. In short, the partnership among sectoral public agencies present in the region remained tenuous, which did not favour complementarity and harmonization among sectors (tourism and agriculture, for instance, or WUAs for potable water and the National Water Authority). Also, beyond

---

<sup>7</sup> The responsibility for project execution was entrusted to permanent staff of the ORMVAs, without creating a separate ad hoc project management unit.

the joint hosting of the start-up workshop and a few visits, there was little coordination between the two ORMVAs, although they were managing the same project with the same approach and encountering the same kinds of problems.

43. The importance of the partnership between the ORMVAs and grass-roots associations was better understood by project staff, as it is nowadays in Morocco overall. This shift is still fragile, however, with an unequal partnership, with technical issues and resources on one side and on the other only goodwill. Partner associations must benefit from specific support over time, and partnership with populations must not mean an abrupt disengagement by the State and its agencies in the short term, but rather a different kind of engagement, involving adapted financing and learning mechanisms that will lead to a gradual transfer of responsibility.

## VII. OVERALL ASSESSMENT AND CONCLUSIONS

44. Over a ten-year period, the project played an important role in the economic and social development of Tafilalet and Dades. Project performance was generally satisfactory and received high rates in its three dimensions. Impact domains also received high scores based on the evidence collected through surveys, field visits and interviews. Specific activities for women yielded promising results in providing women with training and sources of income and reducing their workloads, but their “weight” in the project design and actual outreach was limited. As previously noted, the main area of concern is sustainability of project activities now that the project is closed. A broader strategic review rather than an operational “quick fix” is called for. Finally, the performance of IFAD, the Government and the implementing agencies was satisfactory, but not that of the cooperating institution and the other cofinanciers (see table below).

**Tafilalet and Dades Project Ratings**

<b>Project Performance</b>		<b>Rural Poverty Impact</b>		<b>Performance of Partners</b>	
Relevance	4	Physical and financial assets	5	IFAD	4
Effectiveness	5	Human assets	4	Other donors	3
Efficiency	5	Social capital	4	AFESD	3
		Food security	5	Government and ORMVAs	4
		Environmental and natural resources	4	Overall partnership	3
		Institutions and policies	4		
		<b>Overarching factors</b>			
		Gender	3		
		Sustainability	3		
		Innovation and replicability	4		

Scale: (6) highly successful; (5) successful; (4) partly successful; (3) partly unsuccessful; (2) unsuccessful; (1) highly unsuccessful. Details are provided in the main report.

45. Enhancing the value of agricultural land has long been a priority for the ORMVAs in view of the imperatives of increasing agricultural production and creating income sources for rural populations. The development needs currently perceived in both regions concern primarily: (i) the protection of fragile ecosystems and the precious heritage of landscapes and technical structures (valleys under development, oases, *khattaras*) that bear witness to the rural populations’ ingeniousness and ability to adapt to a difficult environment; and (ii) the promotion of rural populations and the fight against the poverty and exclusion that place economic and social development in these regions in jeopardy.

46. In consideration of these challenges, there are limitations to agricultural development. This is the typical case of arid regions where natural resources do not support unlimited intensification and development of agricultural production. Hence, the imperative of diversifying income sources is a structural reality in the project area, particularly for poor households so that they can overcome the obstacles of depleted soil and drought. New prospects are opening up for economic and social development in Tafilalet and Dades, through promotion of tourism and the film industry (the latter in Ouarzazate), two activities that did not exist at the time of project formulation and are likely to increase regional growth. Such growth may not automatically translate into poverty reduction, but this is an overall opportunity that cannot be ignored.

47. Based on the above, several recommendations can be made to underpin activities by the ORMVAs in the two project regions and strengthen IFAD's partnership with Morocco for effective poverty reduction and rural development. As a conclusion of the completion evaluation when no second phase is immediately envisaged by IFAD, it seems more appropriate to focus on strategic issues (divided into the following three categories) rather than on operational thrusts.

### **Strategic Vision for Integrated and Sustainable Regional Development**

- (i) Poverty reduction needs to be part of a more comprehensive regional multisector development strategy. This would include greater coordination and consensus-building among the various development partners in these regions. Public authorities will still have to play a key organizational and supporting role in the development process by mobilizing the resources (above all, financing) and skills required. This recommendation is addressed to the ministerial, regional and provincial authorities and departments, with IFAD's support.
- (ii) The oasis landscape in the largest sense (including mountainous valleys) should remain a central concern for rural development projects in the area, not only as a precondition for subsistence but also as a precious collective cultural heritage with potential for economic diversification (including ecotourism) that could be developed profitably and beneficially. This recommendation is addressed in particular to the ORMVAs and the Ministry of Agriculture.
- (iii) It is important to elaborate guidelines to ensure the maintenance of infrastructure investments, particularly for medium- and small-scale irrigation. To this end, the gradual transfer of irrigation system management to WUAs should be accompanied by support for their activities (redeployment of ORMVA staff to strengthen units of WUAs, training for WUAs and upgrading for technicians in their new role as advisers to WUAs). This recommendation is addressed to the ORMVAs and the Ministry of Agriculture.

### **Partnership**

- (iv) The ORMVAs need to update their operating approaches and modalities to perform a mission that is complex, yet stimulating and motivating. Finding motivated and skilled human resources (beyond agricultural techniques) is a challenge that must be met. The ORMVAs should forge partnerships with associations, cooperatives and the private sector to promote sustainable local development. They should also avoid creating or artificially maintaining enterprises that have no chance of sustaining themselves in the absence of public subsidies. This recommendation is addressed to both the ORMVAs and their specialized partners (the Provincial Office for Support Services, the Provincial Office for Youth and Sports, the Social Development Agency and the Authority for Cooperation Development).

- (v) Better coordination is needed among donors, perhaps in the form of a shared agenda for support and supervision (for example, common supervision/support missions, cofinanced by the various donors). Supervision should be continuous and provide institutional support to implementation rather than being confined to the enumeration of financial accounts and physical outputs. Any donor presence in the country offers an advantage that should be used for dialogue with local agencies and authorities. This recommendation is addressed to the donors (AFESD, IFAD, IsDB, OPEC).
- (vi) The results of experience in developing participatory small- and medium-scale irrigation should be studied in depth, e.g. under a research and development programme involving recognized local or regional organizations to draw lessons concerning ORMVA/WUA partnerships for maintaining, protecting and enhancing the infrastructure installed. This recommendation is addressed to DAHA and educational and research establishments.

### **Project Formulation and Targeting and Means of Verifying Achievements**

- (vii) There is a need to simplify project formulation through a more selective definition of components and better targeting of project activities, both geographically and based on the needs of the poor, and consolidate the dynamics of promoting poor populations by undertaking more integrated projects with better coordination of activities from the outset. Women's associations offer good opportunities for training and advancement of rural women and need to be strengthened. A study might be conducted to identify opportunities for income-generating activities by women (including upgrading the quality of their products to be competitive in selected niches) and ways of supporting them. This recommendation is addressed to both the ORMVAs and their specialized partners, the Ministry of Agriculture and IFAD.
- (viii) It is necessary to set up a results-based monitoring and evaluation system that can document impact (changes in household welfare) and help realign activities to the desired socio-economic goals. This is not simply a requirement for donor-funded project implementation, but should become part and parcel of the ordinary management tools of the ORMVAs. In addition, documentation, knowledge management and communication of field experiences and achievements should be reinforced. New information and communication technologies are an effective means of capitalizing on such experiences and exchanging them with other actors nationally and internationally, and should primarily be developed within the ORMVAs by the appropriate divisions, possibly with some external facilitation and support by donors. This recommendation is addressed to the ORMVAs, the Ministry of Agriculture and donors (IFAD, IsDB, OPEC).

## SELECTED FINDINGS FROM THE EVALUATION

**Table 1: Changes in the Availability of Income-Generating Opportunities,  
Feed for Livestock and Irrigation Water**

Changes	Improved (%)				Not changed (%)				Reduced (%)			
	Tafilalet		Dades		Tafilalet		Dades		Tafilalet		Dades	
	Project	Control	Project	Control	Project	Control	Project	Control	Project	Control	Project	Control
Income-generating opportunities	36	17	36	29	57	67	43	21	7	17	20	50
Feed for livestock	80	40	44	0	11	40	14	7	9	20	42	93
Irrigation water	26	10	11	0	26	63	19	0	48	27	70	100

Changes are reported as perceived by interviewees in the preceding five years. The table compares the sample of project beneficiaries from Tafilalet and Dades with control samples.  
Source: IFAD Evaluation Rural Survey (2005).

**Table 2: Changes in the Availability of Pastures and in Soil Fertility**

Changes	Improved (%)				Not changed (%)				Reduced (%)			
	Tafilalet		Dades		Tafilalet		Dades		Tafilalet		Dades	
	Project	Control	Project	Control	Project	Control	Project	Control	Project	Control	Project	Control
Availability of pastures	5	4	2	0	28	32	23	14	68	64	74	86
Soil fertility	13	4	1	0	35	14	11	0	52	82	88	100

Changes are reported as perceived by interviewees in the preceding five years. The table compares the sample of project beneficiaries from Tafilalet and Dades with control samples.  
Source: IFAD Evaluation Rural Survey (2005).

## APPENDIX

## SELECTED FINDINGS FROM THE EVALUATION SURVEY

**Table 3: Beneficiaries' Assessment of the Project**

Target group	Assessment				Interested in Participating Again?	
	Very Good	Good	Not So Good	Weak	Yes	No
Herders' cooperatives (Tafilalet)	31%	34%	17%	19%	83%	17%
Irrigation water users' associations (Tafilalet)	60%	32%	8%	0%	100%	0%
Women's cooperatives (Tafilalet)	90%	7%	3%	0%	97%	3%
Potable water users' associations (Dades)	57%	29%	7%	7%	97%	3%
Irrigation water users' associations (Dades)	17%	38%	25%	21%	92%	8%
Women's cooperatives (Dades)	14%	43%	14%	29%	93%	7%
Total	47%	30%	12%	11%	93%	7%

Source: IFAD Evaluation Rural Survey (2005).

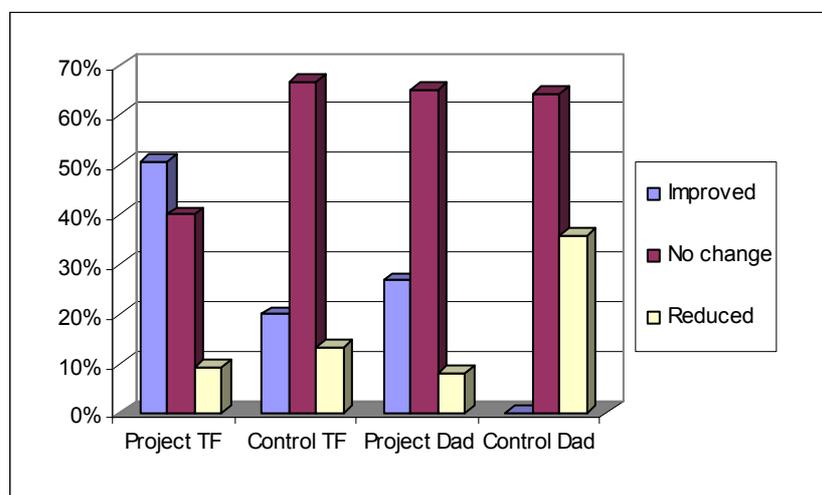
**Table 4: Beneficiaries' Assessment of the Attention Received from the Staff in Charge of the Project**

Target group	Very Good	Good	Not So Good	Weak
Herders' cooperatives (Tafilalet)	19%	32%	20%	29%
Irrigation water users' associations (Tafilalet)	42%	25%	17%	17%
Women's cooperatives (Tafilalet)	87%	7%	3%	3%
Potable water users' associations (Dades)	50%	21%	14%	14%
Irrigation water users' associations (Dades)	13%	25%	46%	17%
Women's cooperatives (Dades)	47%	40%	13%	0%
Total	40%	25%	18%	17%

Source: IFAD Evaluation Rural Survey (2005).

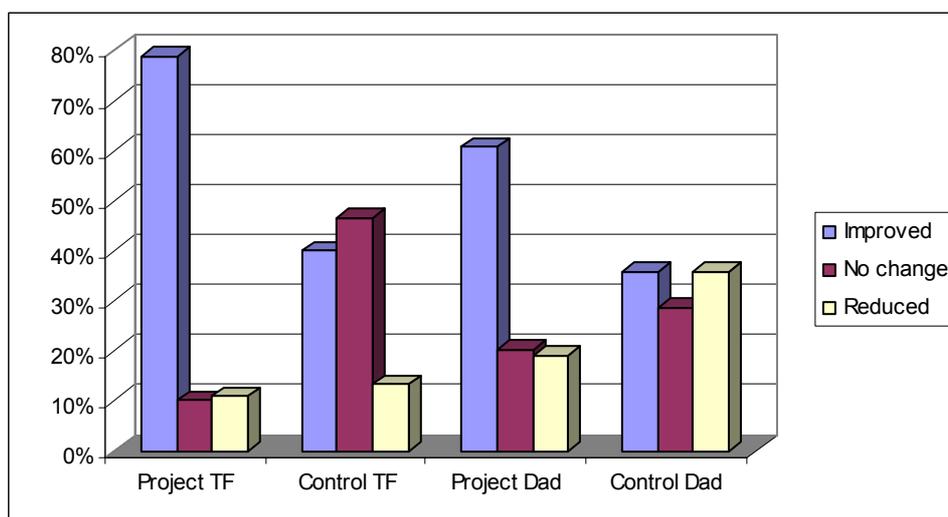
## APPENDIX

## SELECTED FINDINGS FROM THE EVALUATION SURVEY

**Figure 1: Changes in the Availability of Agricultural Extension Services**

Changes are reported as perceived by interviewees in the preceding five years. The figure compares the sample of project beneficiaries (Project) from Tafilalet (TF) and Dades (Dad) with control samples (Control).

Source: IFAD Evaluation Rural Survey (2005).

**Figure 2: Changes in the Availability of Food for Household Members**

Changes are reported as perceived by interviewees in the preceding years. The figure compares the sample of project beneficiaries (Project) from Tafilalet (TF) and Dades (Dad) with control samples (Control).

Source: IFAD Evaluation Rural Survey (2005).