Report Number : ICRR0021307

1. Project Data

Project ID	Project Name
P093719	MA-Modern. of Irrig. Agric.in OER Basin
Country	**Practice Area(Lead)**
Morocco	Water

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
IBRD-78750,TF-92827	30-Jun-2016	115,500,000.00
Bank Approval Date	**Closing Date (Actual)**	
27-May-2010	31-Dec-2017	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	70,000,000.00	1,000,000.00
Revised Commitment	70,000,000.00	996,959.83
Actual	62,358,190.39	996,959.83

Prepared by	Reviewed by	ICR Review Coordinator	Group
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2. Project Objectives and Components

a. Objectives

The original Project Development Objectives (PDOs) as stated in the Loan Agreement (Schedule 1, page 6) and in the Project Appraisal Document (PAD, page 3) were:

"To increase the productivity and to promote more sustainable use of irrigation water to overcome current and future water deficits for the participating farmers in the Project Area (the Oum Er Rbia basin).

The PDO was revised through a Level 1 restructuring on November 4, 2015. The revised objective as stated in the ICR (page 1) was:

"To increase adoption of more efficient irrigation technologies by the participating farmers in the project area". At the time of the restructuring, US$46.70 million of the IBRD Loan had been disbursed, 64 percent of the final disbursed amount.

This Review will carry out a split evaluation.

b. Were the project objectives/key associated outcome targets revised during implementation?
Yes

Did the Board approve the revised objectives/key associated outcome targets?
Yes

Date of Board Approval
04-Nov-2015

c. Will a split evaluation be undertaken?
Yes

d. Components

There were three original components (PAD, pages 5-6).

One. Improving the Water Service. Appraisal estimate US$90.00 million. Actual cost US$84.52 million. This component aimed at modernizing off-farm irrigation systems so that the participating farmers could receive irrigation water on demand and at sufficient pressure for on-farm drip irrigation equipment. (The farmers were expected to finance the on-farm irrigation equipment investments, through a 100% subsidy from the national Agricultural Development Fund). Activities included: (i) financing studies on topographic works and laboratory tests: (ii) technical assistance for monitoring works: (iii) upgrading some main canals to install the flow-regulation systems required for on-demand irrigation: (iv) constructing feeder pipes, pumping stations, filtration stations and distribution networks.

Two. Supporting farmers. Appraisal estimate US$4.45 million. Actual cost US$3.82 million. This component provided assistance to participating farmers to make use of the new irrigation equipment for growing high-value crops. Activities included: (i) helping farmers enter into legally-binding agreements with agro processing companies to secure access to markets for high-value crops: (ii) financing a Market Information System in each Regional Agricultural Development Office (the French acronym - ORMVA) to provide information about prices to farmers and purchasers of agricultural output: and, (iii) financing mobile laboratory equipment to monitor performance of the new irrigation system.

Three. Supporting Implementing Agencies. Appraisal estimate US$5.00 million. Actual cost US$3.39 million. Activities in this component financed training, technical assistance and computer equipment to the Ministry of Agriculture and Fisheries (MAPM) for designing and implementing the technical and management tools to be used by the three Regional Agricultural Development Offices (ORMVAs) (including design of the Monitoring and Evaluation (M&E) system, a remote sensing study for measuring evapotranspiration at project closure, and designing the market information and irrigation alert systems).

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project cost. The actual project cost was US$91.73 million, 79.4% of the appraisal estimate of US$115.5 million. The difference reflected lower costs as compared to the appraisal estimate due to a combination of factors including, savings associated with the bidding process (actual cost of component one activities which represented 90 percent of the project cost, were about 10% lower than estimated at appraisal) and exchange rate changes between the Euro and the US$ during implementation.

Project financing. The project was financed by an IBRD loan of US$71.00 million and a Bank-managed Trust Fund (TF-92827) Grant of US$1.00 million. US$62.35 million of the Loan was disbursed. The lower amount reflects exchange rate changes during implementation. US$0.99 million was disbursed from the Trust Fund. There was parallel financing for complementary activities on water policy from the European Union (EU) and the African Development Bank (AfDB), on water and sanitation activities from the German Development Bank (KfW), the European Investment Bank (EIB) and the AfDB, on irrigation activities from the EIB and water storage activities from the Arab Funds.

Borrower Contribution. The appraisal estimate was US$45.50 million. Actual contribution was US$30.70 million (this did not include the government subsidies to the participating farmers for financing drip irrigation equipment).

Dates. The following changes were made through a Level 1 restructuring on November 24, 2015. (1) The PDO was revised as the original PDO was deemed to be unrealistic in terms of what could be achieved within the project timeframe. (2) The Results Framework was revised to align with the revised PDO. The original PDO level indicators were dropped and new indicators were added (see Section 9 below). (3) The safeguards policy on Safety of Dams was triggered (discussed in section 10a). and (4) The closing date was extended by 18 months in order to complete the ongoing irrigation network infrastructure and technical assistance activities that had been subject to delays in the initial years. The project closed on December 31, 2017.

3. Relevance of Objectives

Rationale

Original PDO. The PDOs were relevant to the government strategy. The agricultural sector was the primary user of surface water, accounting for about 85% of the withdrawals. At appraisal, the sector was subject to restrictions in water availability due, inter alia, to a reduction in supply from dams, increased demand for potable water, and the priority given to industrial uses. The pressure on agricultural water uses and the reduced availability for irrigation had resulted in farmers increasingly drawing water from groundwater sources, with attendant aquifer depletion. The Government strategy articulated in the "*Morocco Green Plan*" issued in 2008, underscored the need for promoting high value agriculture and supporting sustainable agriculture in irrigated areas. In the same year, the Government launched an irrigation strategy - *the National Plan for Saving Water in Irrigation*. This plan aimed at modernizing a third of the country's large scale irrigated schemes covering about 220,000 hectares (ha), including 145,000 ha in the Oum er Rbia Basin). The government-financed Agricultural Development Fund included subsidies for on-farm drip-irrigation investments, amongst other things.

The PDOs were well-aligned with World Bank Group Strategy. At appraisal, the third pillar of the Country Partnership Strategy (CPS) for the 2010-2013 period highlighted the importance of "sustainable development in a changing climate". The PDO were also consistent with the CPS for the 2014-2017 period, which emphasized the need for increasing the productivity and value added of the agricultural sector.

The original objectives were, however, unrealistic in terms of the project timelines. The project activities aimed at laying the foundation for increasing water productivity and sustainable use of water resources and the original objectives were deemed to be achievable only after project closure.

Revised Objective. **High**. The revise PDO aimed at increased adoption of more efficient irrigation technologies by the participating farmers. The revised PDO more realistic in terms of the project timeframe.

Rating
High

4. Achievement of Objectives (Efficacy)

Objective 1
Objective

Original Objective One. To increase the productivity of irrigation water to overcome current and future water deficits for the participating farmers in the project area (the Oum Er Rbia Basin).

Rationale

Theory of change. The project activities aimed at increasing the area and number of participating farmers with access to drip irrigation. Given that the project activities only aimed at laying the foundation stone for increasing water productivity and sustainable use of water resources, the original objectives of increasing water productivity and sustainable use were unrealistic and deemed to be achievable only after project closure.

Outputs (ICR, pages 34-35).

- 34% of the participating farmers were using drip irrigation at project closure. This was short of the target of 50%.
- 43% of the land area in the project area was equipped with drip irrigation. This was short of the target of 70%.
- In three of the eight sectors irrigation network infrastructure investments were completed in 2014 and farmers were using drip irrigation for the 2016-2016 and 2016-2017 cropping seasons (In Ittihad and Omrania, Tadla: and Quest 1, Doukkala). In Tadla, there was a 100% in area under high-value added crops (100% increase in area under vegetables as compared to the target of 9%, and a 788% increase in area under fodder corn as compared to the target of 510%). There was no increase in land area under tree crops as targeted. In Doukkala, there was a 2,566% increase in land area under vegetables as compared to the target of 300%. The area under fodder corn in Doukkala increased from zero to 520 hectares (Ha) as compared to the target of 100 ha.
- Eight partnership projects were formed by the participating farmers with agribusiness in Tadla as compared to the target of ten (Two additional partnership projects were ongoing for milk and olive oil at project closure). There were ten partnership projects in agribusiness in Doukkala as targeted.
- The target relating to the number of participating farmers who applied for groundwater authorization was not achieved in Tadla due to regulatory changes. There was no groundwater in Doukkala.

Outcomes.

- An assessment was made at closure through monitoring surveys conducted by the Regional Development Offices (ORMVAs). This covered three of the eight sectors where network improvements were completed in 2014 and where farmers were using drip irrigation for the 2015-2016 and 2015-2016 cropping seasons (Ittihad and Omrania in Tadla and Quest 1, Doukkala). The assessment showed that productivity per unit of water delivered increased to 4.2 Moroccan Dirham (DH)/ cubic meter (c3) as compared to 2.5 DH/c3 at the baseline. This exceeded the target of 4 DH/c3 in Tadla. Productivity per unit of water delivery increased to 5.3 DH/c3 in Doukkala as compared to 3.5 DHc3 at the baseline. This exceeded the target of 4.0 DHc3. However, the network improvement took place on only 30 percent of the total project area.
- The ICR (page 12) notes that three additional sectors representing 45% of the area had the first cropping season under drip irrigation at the time of ICR preparation and data on impacts were to be made

available following the harvest of summer crops (November 2018). The last two sectors accounting for the remaining 25% of the project area were expected to have the first cropping season under drip irrigation in the winter of 2018-2019, with data on impacts available following the harvest of winter crops in June 2019.

- An assessment made using remote sensing techniques by the Royal Center for Remote Sensing indicated that water productivity per unit of water consumed in Tadla increased from 33% at the baseline to 66% at project closure. This represented a 206% increase relative to the baseline. There was no target for this indicator.
- The increase in agricultural production per farm increased by 166% at project closure as compared to the target of 30% in Tadla and in Doukkala by 142% as compared to the target of 30%.
- Although the outcomes pertaining to this PDO were realized before project restructuring, this represented activities on less than a third of the total project area.

This objective was dropped after project restructuring.

Rating
Modest

Objective 1 Revision 1
Revised Objective

The revised objective adopted after project restructuring was to increase adoption of more efficient irrigation technologies by the participating farmers in the project area.

Revised Rationale

Theory of Change.The revised PDO aimed at increased adoption of more efficient irrigation technologies by the participating farmers. The revised PDO was more realistic in terms of the project timeframe.

Outputs (ICR, pages 33-34).

- The irrigation network infrastructure investments were completed in the three project areas (Tadla, Hauoz and Doukkala) as targeted.
- 22,062 ha of the land area was provided with new/improved irrigation or drainage services at project closure. This exceeded the target of 21,167 ha.
- 43% of the project area was equipped with improved irrigation technology as compared to 4% at the baseline. This was short of the target of 70%.
- 181 youths (including 18 girls) having secondary education were trained in areas pertaining to efficient irrigation technologies.

Outcomes.

- 6,811 farmers directly benefitted from the project at project closure. This exceeded the target of 6,211 farmers. 9% of the beneficiaries were women. This exceeded the target of 2%.
- 2,305 farmers (including 230 women) adopted improved agricultural technology at project closure. This represented 74% of the target of 3,100 farmers. The ICR (page 11) notes that in the remaining project area, the installation of irrigation works is ongoing and by December 2018, 3,300 farmers are expect to adopt the improved agricultural technology.

Revised Rating
Substantial

Objective 2
Objective

Original Objective 2. To promote more sustainable use of irrigation water to overcome current and future water deficits for the participating farmers in the Project Area (the Oum Er Rbia basin).

Rationale

Outputs.

- The outputs described above under original objective one are also relevant to this objective.

Outcomes.

- As a result of improvements in service delivery of water (with water available on demand rather than on rotation) to 30% of the total project area, there was a 43% reduction in the volume of groundwater abstraction in the project areas in Tadla. This exceeded the target of 20%.

Although the outcomes pertaining to this PDO were realized before restructuring, this represented activities only on 30% of the total project area.

This objective was dropped after project restructuring.

Rating
Modest

Objective 2 Revision 1

Revised Objective

This objective was cancelled after project restructuring.

Revised Rationale

Revised Rating

Not Rated/Not Applicable

Rationale

Although the outcomes of the original objectives were realized before restructuring, this represented activities on less than a third of the total project area. The three original outcome indicators - increased water productivity, reduced groundwater consumption, and increased value of agricultural production for each type of farm - were unrealistic in terms of the project timeframe. According to the PAD, project activities aimed only at laying the foundations for their future achievement. Efficacy before restructuring is, therefore, rated as Modest. Given that the revised outcomes were largely realized after project restructuring, efficacy of the revised objectives is rated substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic Analysis. Ex ante and ex post economic analysis was conducted for the “Improving the Water Service” (component one) activity in the Ittihad and Omrania sectors: Tadla: Quest 1 and s6, Doukkala and N'fis, Haouz. This accounted for 78% of the appraisal estimate of project cost and 92% of the actual cost. The economic benefits were assumed to come from increased value-added of production due to a combination of factors including, increase in cropping intensity, agricultural yield improvements and shifts to higher value-added crops. The project costs included investment costs of the water networks and the cost of the on-farm irrigation equipment. The average ex post Economic Internal Rate of Return (EIRR) was 21%, as compared to an average ex ante EIRR of 18%. The higher ex post EIRR was due, inter alia, to a greater than anticipated increase in the value added of production and lower project cost at closure due to the savings associated with the bidding process. Although these results pertain to only about 30 percent of the planned project area, there is no reason to assume that they would not be attained more widely once the investments in the remaining area have been completed.

The ICR (page 13) notes that the project's network costs compared favorably with international benchmarks, as shown by an analysis undertaken by the supervision team in the final year of project implementation. The modernization costs under the project ranged between US$4,600 and US$6,600 per hectare (ha) which was lower than in comparable cases in nearby Spain (US$4,900 to US$8,400 per ha).

Administrative and Operational Issues. The project was subject to implementation delays following effectiveness due to suboptimal sequencing of activities, procurement delays, consequently tardy installation of improved irrigation technologies by farmers, the longer than expected time required for preparing documentation (especially related to land ownership) for assessing the subsidy by the participating farmers, and delays in developing partnership agreements between the new agricultural-food chains and the participating farmers. These issues were however largely resolved through an 18 month extension to the project closing date.

Efficiency Rating
Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	21.00	78.00 ☐Not Applicable
ICR Estimate	✓	18.00	92.00 ☐Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

Original PDO. Although the original PDOs - to increase the productivity and to promote more sustainable use of irrigation water to overcome current and future water deficits for the participating farmers - were highly relevant to the Bank and Government Strategy, they were unrealistic with respect to the project timelines. Most expected outcomes would likely materialize only after project closure. Although outcome targets were largely achieved, this occurred in an area representing only about 30% of the total project area. Efficacy of the original PDOs, therefore, is rated Modest. Efficiency is rated as Substantial, in view of the relatively high EIRR, the realization of cost savings compared to appraisal estimates, and the successful completion of activities planned under the restructuring. Outcome before restructuring is assessed as Moderately Unsatisfactory.

Revised PDO. The relevance of the objective to the Bank and Government remains High. The revised objective was realistic in terms of the project timeframe and reflected a tighter and more robust theory of change. Efficacy of the revised single PDO, to increase adoption of more efficient irrigation technologies by the participating farmers in the project area, is rated as Substantial, given that most intended outcomes were achieved. With substantial efficiency the overall outcome of the revised project is rated Satisfactory.

Weighting by the shares of disbursements before and after restructuring, the overall rating is Moderately Satisfactory.

a. Outcome Rating
Moderately Satisfactory

7. Risk to Development Outcome

Technical risk. There has been increase in the value of agricultural production of the participating farmers using efficient irrigation technologies. This is likely to encourage the Water User's Associations, the irrigation companies and the respective Regional Agricultural Development Offices to complete and extend the ongoing works.

Government Commitment. Commitment to the ongoing activities is expected to remain strong, thereby making it probable that the subsidy to on-farm equipment by the national Agricultural Development Fund will continue to be funded.

Overall, therefore, the risk to development outcome is considered to be low.

8. Assessment of Bank Performance

a. Quality-at-Entry

This project was prepared based on the experience of the earlier Bank-financed Second Large Scale Irrigation Project and the Water Resources Management Project which funded a pilot of installing drip irrigation on ten small farms. Lessons incorporated at design included incorporating on-farm irrigation improvements and integrating efforts to improve agricultural productivity, rather than addressing them as a separate project (such as had been done in the case of the Irrigation Areas Agricultural Services Project). Given that, at preparation, the government was in the process of reformulating its national approach to agricultural extension, design included technical assistance within the “Supporting Farmers” component. This helped to engage participating farmers in a dialogue concerning technical and agronomic elements, while the wider agricultural extension discussion was the responsibility of the

government. Risks identified at appraisal included the possible non-achievement of higher agricultural value-added. This was rated high given that higher value-added production was dependent on investments in post-harvest infrastructure. Risks associated with farmer participation were also identified. Mitigation measures included financing technical assistance activities aimed at identifying the highly-motivated farmers in the first phase of the project. With the mitigation measures, the overall project risk was rated as Moderate. Most project activities were to be implemented by the three Regional Agricultural Development Offices (ORMVAs) under the supervision of the Directorate of Irrigation and Rural Infrastructure (DIAEA) in the Ministry of Agriculture and Marine Fisheries, except for some technical assistance and training and cross-cutting activities that were to be directly implemented by DIAEA. The arrangements made at appraisal for Monitoring and Evaluation design (Section 9a) and safeguards and fiduciary compliance were appropriate (Section 10).
Given the insufficient time allowance for the achievement of the original objectives, Quality at Entry is rated Moderately Satisfactory.

Quality-at-Entry Rating
Moderately Satisfactory

b. Quality of supervision

18 Implementation Status Results (ISRs) Reports were filed over a eight year period, implying an average of more than two missions per year. The ICR (page 24) states that the supervision team included staff with expertise in technical, environmental and social issues. This aided compliance with safeguards policies (Section 10 below). Combining supervision of this project with that of the second phase of the Large-Scale Irrigation Modernization Project approved in 2015, was an efficient use of Bank and government resources. The restructuring of the project was appropriate. The objectives were rendered more realistic, and the timeframe that was needed to complete ongoing works was lengthened. Adequate arrangements were made during implementation for the additional safeguards triggered at restructuring.

Nevertheless, in view of the delays in implementing component one and two activities and the implications for the time needed to achieve the original PDO outcomes, it would have been preferable to hold the Mid-Term Review earlier than in December 2014. Further, there was a gap of nearly a year between the conclusions of the Mid Term Review and Board approval of the restructuring in November 2015. Eventually the closing date was extended by an additional 18 months at restructuring.

Quality of Supervision Rating
Moderately Satisfactory

Overall Bank Performance Rating
Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The three original outcome targets - increase in water productivity (defined as increase in the value of agricultural production for a given amount of water), reduction in groundwater consumption and increase in value of agricultural production for each type of farm throughout the project area, were unrealistic in terms of the project timeframe, given that project activities aimed only at laying the foundations for their achievement.

The M&E design envisioned that indicators on water productivity, groundwater reduction and increases in agricultural production were to be monitored through surveys at project start and at closure. The M&E systems for tracking indicators on progress towards network and on-farm investment were appropriately designed. M&E design also included experimentation on measurement of water consumption through remote sensing - an approach deemed to be cost-effective as compared to direct measurement through a sample. The Department of Irrigation of the Ministry of Agriculture and Marine Fisheries (DIAEA) was responsible for M&E management and the information for monitoring was to be provided by the respective Regional Agricultural Development Offices (ORMVAs).

b. M&E Implementation

With the revision of the PDO following project restructuring, the Results Framework was modified and the original outcome indicators were dropped. The original intermediate indicator on the adoption of improved irrigation technologies became an outcome indicator and core Bank indicators, such as the number of direct project beneficiaries (including female beneficiaries) and the number of farmers adopting improved irrigation technology by closure, were added.

The water monitoring using remote sensing techniques was put in place as envisioned at design.

c. M&E Utilization

The information provided by the M&E system was used for decision-making during implementation and for monitoring project performance at closure.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was classified as Category B for purposes of environmental assessment. As well as Environmental Assessment (OP/BP 4.01), the Involuntary Resettlement Safeguards safeguard (OP/BP 4.12) was triggered at appraisal. According to the PAD (page 16), an Environmental Assessment was conducted and an Environmental Management Plan (EMP) prepared at appraisal. It also notes that land acquisition was anticipated for building irrigation infrastructure (such as water pipes, reservoirs and pumping stations). A Framework Land Acquisition Plan (FLAP) was prepared and publicly-disclosed (PAD, page 16).

Safeguard of Safety of Dams (OP/BP 4.37) was triggered with project restructuring, to account for the fact that although the project did not finance construction of dams, an internal Bank review of the water portfolio in Morocco conducted in 2015 identified that 15 dams (of which nine were related to this project) could potentially affect Bank funded infrastructure projects. The success of this project was deemed to depend on the storage and operation of these nine existing dams (restructuring paper, page 8). The review also concluded that the procedures and guidelines for monitoring and managing dams in Morocco were consistent with international good practices, as recommended by the International Commission on Large Dams and hence consistent with the requirements of OP/BP 4.37.

The ICR (page 22) reports that, during implementation, environmental monitoring was based on monthly monitoring sheets provided by the contractors and verified by the environment focal points through regular visits to sites. It states (page 22) that implementation of the EMP was satisfactory.

Involuntary Resettlement. In Tadla, 14 ha of land owned collectively by 301 households, and in Haouz, 50 ha of land owned by 630 private owners, were acquired. Compensation for land and standing crops was based on market prices in the year of acquisition. The ICR (page 23) reports that compensation was made prior to initiation of works for 500 Project Affected Persons and escrowed for an additional 105, many of whom had either not responded or had internal family inheritance disputes.

b. Fiduciary Compliance

The Ministry of Agriculture and Fisheries (MAPM) and the three Regional Development Offices (ORMVAs) were in charge of fiduciary arrangements. These agencies had prior experience with Bank-financed projects.

Financial management (FM). An assessment of the FM capacity of the ORMVAs conducted at appraisal, concluded that the FM arrangements were satisfactory, and the FM Risk was rated as Moderate (PAD, pages 15-16). The ICR (page 24) states that the FM arrangements were satisfactory during implementation. Unqualified external audits were submitted in a timely fashion.

Procurement. An assessment of the procurement capacity of the ORMVAs conducted at appraisal, concluded that it had been weakened through retirement of experienced officers. Procurement risk was therefore rated as high in view of the lack of experience of the new staff with Bank policies. Mitigation measures incorporated at design included a tailored training program for the ORMVA staff (PAD, pages 15-16). The ICR (page 20) notes that there were significant procurement delays in the initial years. These were however resolved as the Regional Development Offices became more familiar with Bank procurement policies and procedures. The ICR does not report any significant procurement issues at project closure, and there were no reports of misprocurement.

c. Unintended impacts (Positive or Negative)

This project supported the process for farmers to acquire on-farm irrigation equipment through subsidies from the national Agricultural Development Fund. This process required documentation for confirming property rights. This enabled many families to resolve issues pertaining to ownership disputes and updating of land titles. Clarification of land rights had positive implications for the finances of the respective Regional Development Offices (ORMVAs), as in the process the farmers paid back their water fee payment arrears.

d. Other

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11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	---
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	---
Quality of M&E	Substantial	Substantial	---
Quality of ICR		Substantial	---

12. Lessons

The ICR (pages 26-27) draws six lessons from the experience of implementing this project. Of these, the three most important are;

(**1) Careful consideration of the land tenure situation may be required at appraisal for irrigation sector activities.** In this project, activities pertaining to on-farm irrigation investments were subject to delays during implementation, in view of the process associated with establishing land ownership rights.

(2) A relatively long implementation period may be required for large scale irrigation sector activities. This project was designed from the beginning as a seven-year operation. Even with this relatively lengthy time frame, the project closing date had to be extended further in view of the delays during implementation.

(3) Tailored procedures may be required for targeting small farmers. Under this project, a 100 percent subsidy was provided for drip irrigation by the national Agricultural Development Fund (FDA). The subsidy was initially designed in the form of reimbursement, but the limited financial capacity of farmers caused the Ministry of Agriculture to allow the irrigation company to be directly reimbursed by the FDA once the irrigation system was in place.

IEG draws the following lesson from this project.

(1) A realistic assessment of the project timelines is required for a robust theory of change. The original PDOs in this project were unrealistic in terms of the project timeframe. This undermined the theory of change and the relevance of the results framework. This issue was appropriately addressed at the Level 1 restructuring.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR is reasonably well-written and candidly discusses implementation problems in the initial years (such as, difficulties associated with completing the process required by the farmers for getting the subsidies from the Agricultural Development Fund and procurement delays). It is also candid in discussing the issues that caused delays in the formal restructuring of the project. The ICR draws relevant lessons from the experience of implementing this project. The ICR is unduly long and would have benefitted from more stringent editing.

a. Quality of ICR Rating
Substantial