



1. Project Data:		Date Posted : 04/28/2003	
PROJ ID: P007701		Appraisal	Actual
Project Name: On-farm & Minor Irrigation Networks Improvement	Project Costs (US\$M)	568.8	396.7
Country: Mexico	Loan/Credit (US\$M)	200	170
Sector(s): Board: RDV - Irrigation and drainage (96%), Central government administration (4%)	Cofinancing (US\$M)	144.4	0
L/C Number: L3704			
	Board Approval (FY)		93
Partners involved :	Closing Date	06/30/2000	03/31/2002
Prepared by :	Reviewed by :	Group Manager :	Group:
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2. Project Objectives and Components

a. Objectives

The objectives as stated in the Loan Agreement (LA) were to (a) assist Government in consolidating the transfer of management and operation of Irrigation Districts (IDs) from the public sector to Water User Associations (WUO); and (b) assist irrigation farmers in participating IDs to diversify agricultural production and increase efficiency in the use of land and water resources.

Specific objectives from the Staff Appraisal Report were :

- reduce loss and waste of irrigation water;
- promote decentralization and private investment in irrigation;
- increase cropping intensities and yields; and
- increase crop diversification into higher value crops .

During implementation the objectives of On Farm and Minor Irrigation Networks Improvement Project (PRODEP) were not altered, but the project design and rationale were . The original concept was to limit eligibility to a core area of 400,000 hectares in 44 "modules" within 14 of 78 national IDs that had been developed by the World Bank-supported \$1.5 billion Irrigation and Drainage Sector Project (IDSP) , a highly successful project that has funded irrigation management transfer and main system construction in the IDs . If PRODEP had been restricted to the IDs as envisaged at appraisal, it would have been appropriate to evaluate the joint benefits of IDSP and PRODEP. A 1997 amendment reversed the philosophy of consolidation of IDs, throwing open participation to a more diffuse and heterogenous group of beneficiaries .

b. Components

The actual/latest estimate of project cost of \$396.7 million comprised the following (SAR%/ICR%):

- Technical Support, Communications and Training (7.5%/5.3%);
- Minor Network Improvements (45%/44.7%); and
- On-Farm Improvements (48%/50.0%).

c. Comments on Project Cost, Financing and Dates

The financing structure differed radically from that anticipated in the SAR . Following the Mexican debt crisis of 1994/95, funding dried up e.g. the "Technology, Communications and Training " spending was only half of that projected in the SAR, and of that, GOM financed a much smaller percentage than planned . In the ICR, 25% of the project funding would have been "demand-driven" and "market-supplied" by commercial banks to support "financially viable private sector investments in agriculture ." At completion the farmers' participation had increased from 15% to 51.1% but there was no CB financing.

	SAR	ICR
Total Project Cost \$million	568.8	396.7
IBRD	35.2%	42.9%
Commercial Banks	25.7%	0.0%
GOM	24.1%	6.0%
Farmers	15.0%	51.1%

Government could not match dollar for dollar project-specific IBRD funds owing to Mexico's "additionality problem" -

project funding comes out of a fixed sector budget . One of the executing agencies, FIRCO (Trust Fund for Shared Risk) had mechanisms to cofinance private investments through a parastatal intermediary, Alianza para el Campo (APC), but the CNA (the National Irrigation Administration), initially the sole co-executing agency, did not. The ICR blames the economic situation and "overestimation of cost-recovery", for the failure of the CBs to participate. APC financed "On-Farm Improvements", nearly all for machinery), widely dispersed and much smaller Irrigation Units (IUs) and disconnected from IDSP..

3. Achievement of Relevant Objectives:

1. The project increased total water use efficiency from 43% to 60%, although a substantial part of this improvement can be attributed to exogenous factors, independent of the project - the 1995-98 drought and price reforms induced changes in water management, cropping patterns and input use . Water availability fell to only 54% of its 1994 level.
2. The project substantially increased privatization and the involvement of users in planning and operation . The On Farm component had high economic and financial returns, confirmed by a high level of farmer funding . Over 50% of investment costs were eventually funded by the farmers themselves, albeit to finance much lower expenditure per hectare than envisaged . The outcomes for "Minor Network Improvements" could not be evaluated and Region rates this only "marginally successful." CNA made loans to 124 modules, 72 are currently in arrears.
3. The financing structure of the completed project did not resemble the SAR, and the proportions of the underlying investments in goods, services and works were also very different . Counterpart funding was only 35% of that planned.
4. Cropping intensity and yields increased but the cultivated area was substantially reduced . But the failure of the M&E system for Minor Network Improvements, and the strong exogenous factors described above, made it very difficult to estimate the incremental effect of the project .

4. Significant Outcomes/Impacts:

- The farmers financial participation increased by 138% over appraisal estimates, demonstrating a strong demand for On-farm improvements.
- The area under drip and sprinkler irrigation increased by 93,228 ha, 438% of the target.
- At the farm level, the project developed well-trained managers and technical staff, unit costs for O&M fell, and government subsidies were reduced by 80%.
- A notable impact was the decentralization of procurement procedures for machinery acquisition .

5. Significant Shortcomings (including non-compliance with safeguard policies):

- The project's coverage and scope were expanded beyond what was achievable with the available resources - "with the expansion of the command area to 1.5 million ha, the investment made per farmer became minimal." The project amendments extended coverage to the much smaller and more numerous IUs, many of which already had more efficient irrigation and depended heavily on groundwater . Bu this was not the original target population.
- Coordination between co-executors was unsatisfactory - "coordination between FIRCO and CNA was always much below the desired level."
- The project was not ready for implementation because little design work was done before approval, expectations of vommercial bank funding were unrealistic, and the project did not include complementary TA and extension services. The key co-executing agency (FIRCO/SAGARPA) was not included until the 1997.
- There was no impact evaluation because of the lack of the functioning M&E system which had been promised .

6. Ratings :	ICR	OED Review	Reason for Disagreement /Comments
Outcome :	Satisfactory	Satisfactory	
Institutional Dev .:	Substantial	Substantial	
Sustainability :	Likely	Likely	
Bank Performance :	Satisfactory	Satisfactory	
Borrower Perf .:	Satisfactory	Satisfactory	
Quality of ICR :		Satisfactory	

NOTE: ICR rating values flagged with '*' don't comply with OP/BP 13.55, but are listed for completeness.

7. Lessons of Broad Applicability:

- Bank Supervision should resist expansion of coverage when it undermines the project's rationale and there is good reason for believing this will adversely affect outcomes .
- In local development projects, where beneficiaries have the capacity and demonstrated interest, procurement decisions should be decentralized .
- Participation in selection, design, contracting, executing and financing greatly strengthens a system's ownership and sustainability.

8. Assessment Recommended? Yes No

Why? The IDSP project was recommended for assessment and its clustering with an assessment of the PRODEP project would be very cost-effective, as well as appropriate for evaluating the Bank water program in Mexico. An assessment would also permit a clearer analysis of the financing aspects, and role of commercial banks .

9. Comments on Quality of ICR:

Satisfactory. The limitations of the "Key Indicators/ Log Frame" and the "Future Without Project" analysis should have been explained more clearly.