

PHILIPPINES

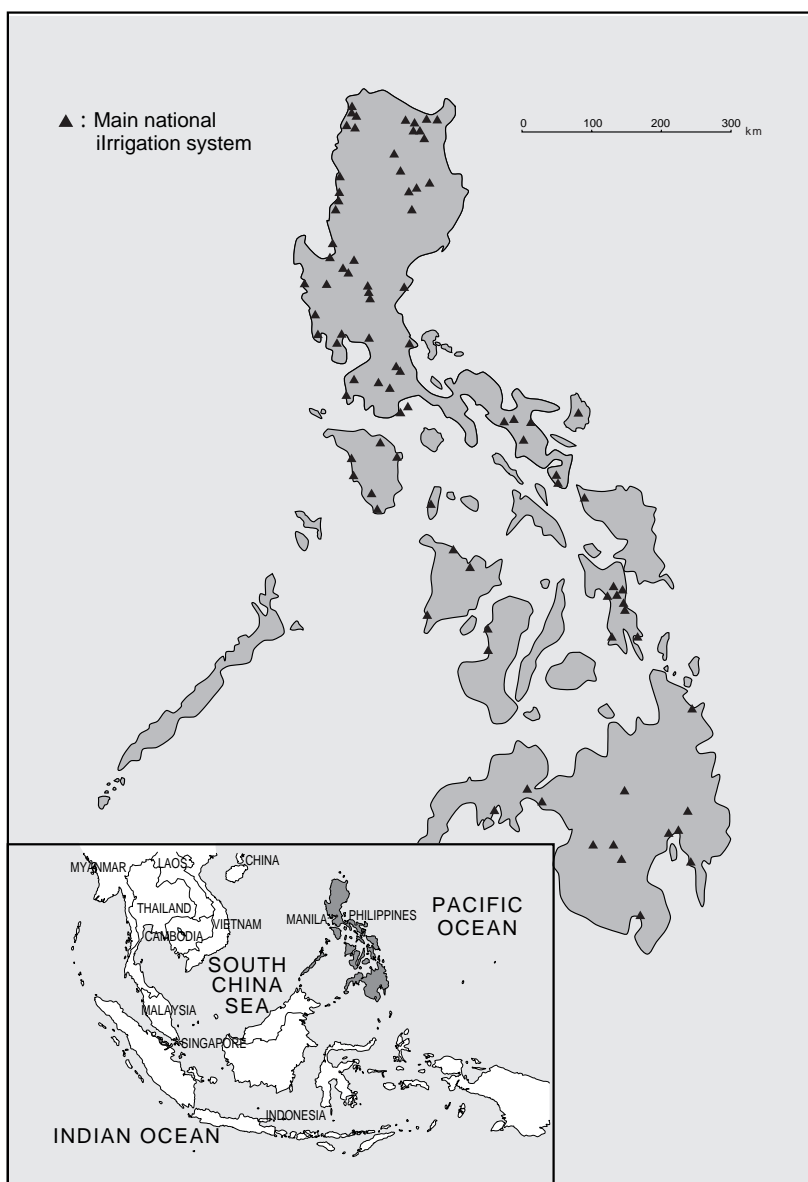
Irrigation Operations Support Project

Report Date: August 1998

Field Survey: Not implemented

1 Project Summary and JBIC's Cooperation

This project was based on the “Nine-year Irrigation O&M Improvement Program” established by the National Irrigation Administration (NIA) in 1987. Its aims were to (i) raise the operating performance level of irrigation facilities by implementation of rehabilitating 127 existing national irrigation facilities as well as by attainment of sufficient annual maintenance costs to strengthen the maintenance of irrigation canals; (ii) improve the quality and efficiency of maintenance of irrigation facilities through strengthening of NIA’s operations and maintenance scheme as well as organization and training of farmers. This project was implemented with co-financing by the World Bank, and the ODA loan covered the “rehabilitation of existing irrigation facilities,” with other components being covered by the World Bank.



2 Evaluation Results

(1) Project Implementation

(i) Project Scope

The project scope, including the portion of the World Bank, was implemented almost entirely according to plan, and no particular problems were noted.

(ii) Implementation Schedule

The work of the JBIC portion was completed with a six-month delay, but this was caused by unavoidable factors including an eruption of Mt. Pinatubo. The completion of the portion financed by the World Bank and the last portion ultimately financed by USAID was also delayed, but this did not have a major effect on the overall project.

(iii) Project Cost

At the time of the JBIC appraisal, the total project cost was estimated to be US\$60.18 million (¥7,523 million), but due to various cost increases including an increase in maintenance equipment procurement costs

Borrower / Executing Agency	Republic of the Philippines / National Irrigation Administration; NIA
Exchange of Notes / Loan Agreement	December 1988 / May 1989
Loan Amount / Loan Disbursed Amount	· 2,500 million / · 2,500 million
Loan Conditions	Interest: 2.7%, Repayment period: 30 years (10 years for grace period), General Un tied
Final Disbursement Date	September 1992

and an increase in training costs, the total project cost including the portion of the World Bank and USAID was approximately 17% greater than the above figure. However, the portion of the total cost corresponding to the JBIC portion was 7% lower than originally estimated.

Comparison of Original Plan and Actual		
(1) Project Scope	Plan	Actual
[1] JBIC Portion		
(i) Minor rehabilitation works of irrigation facilities		
(a) Rehabilitation of irrigation canals (km)	11,550	10,410
(b) Rehabilitation of water distribution facilities (km)	477	470
(c) Rehabilitation of diversion canals and headworks (locations)	69	64
(d) Construction of machinery warehouses (locations)	13	13
[2] World Bank Portion		
(ii) Strengthening of irrigation canal maintenance (ha) Strengthening of NIA operations and maintenance system	10,120	9,168
(iii) Procurement of maintenance equipment and materials (items)	6	8
(iv) Technical aid (preparation of maps and manuals)		
(a) Preparation of cadastral maps (ha)	600,000	70% shown as left
(b) Regions covered by Irrigation Management Information System (ha)	600,000	621,100
(c) Preparation of maintenance manuals (M/M)	47	80.5
(v) Training of staff required for above (persons)	6,800	18,000
(vi) Organization and training of farmers (number of irrigation associations)	390	836
(2) Implementation Schedule		
[1] JBIC Portion	January 1989 ~ December 1991	July 1988 ~ June 1992
[2] World Bank Portion	January 1989 ~ December 1991	January 1989 ~ December 1992
(3) Project Cost		
Foreign currency portion (US\$ 1,000)	17,078	N.A.
Local currency portion (US\$ 1,000)	43,102	N.A.
Total (US\$ 1,000)	60,180	70,700
For JBIC portion (US\$ 1,000)	20,000	(18,590)

(2) Organization of the Executing Agency (implementation and operation/maintenance after completion)

(i) Implementation Scheme

Around the time the project started there was a lack of coordination between the Philippines government and the NIA, concerning the decisions of the donors on the project scope.

Once this project got fully under way, it was implemented without significant problems as initially planned. It was mainly implemented by the twelve regional offices under the supervision and coordination of the NIA Office of Organization and Operation.

(ii) Operations and Maintenance Scheme

While aiming to strengthen the NIA's operations and maintenance scheme, the project's plan was to also organize irrigators' associations and transfer responsibility for the maintenance of part of the main canals and collection of water charges to all irrigators' associations. The project greatly surpassed the initial target of organizing 390 irrigators' associations, achieving instead 836 irrigators' associations, and maintenance responsibility was transferred to 584 of these irrigators' associations, or about 70% of the total. The transfer of maintenance responsibility to irrigators' associations is important not only to raise the water charges collection rate, but also to improve the financial condition of the NIA, which is shouldering a heavy payroll load, and it will be necessary to further actively promote the transfer of maintenance responsibility to the remaining irrigators' associations.

(3) Project Effects and Impacts

The increase in production for the entire area covered by the project has significantly exceeded the original prediction at the time

of the JBIC appraisal, reaching 581,000 tons, which has increased farming incomes far above the planned amount. The repair of tertiary irrigation canals can thus be said to be an effective measure.

The state of irrigation shows that the proportion of the irrigable area that is irrigated is better than before the implementation of the project. The collection rate for water use charges (Amount of water use charges collected/ Amount of water use charges billed) is improving, but it has not reached the planned level.

Comparison of Project Effects and Impacts Plan and Actual		
Item	Plan	Actual
Proportion of irrigable area under irrigation	(Before implementation) 69% in rainy season, 47% in dry season	72% in rainy season, 63% in dry season
Added annual rice production	358,000 ton	581,000 ton
Increase in farmers' income (amount of increase in annual income)	800 pesos for a farmer with 1ha (2,400 pesos for a farmer with 3ha)	1,870 Pesos, as left (5,610 Pesos)
Improvement in water usage charge collection rate (54% in 1986)	75% as of 1992	59% as of 1992
Internal Rate of Return (EIRR)	34%	28%

(Source) Materials from NIA, the World Bank PCR and JBIC

3 Lessons Learned

When the implementation of a project through co-financing is considered, the borrower/ executing agency must take the initiative in achieving full coordination between donors before the project begins.

When a project is likely to be implemented through co-financing with multiple donors, any delay in one donor's final decision to participate could delay the implementation of the portions covered by other donors. To avoid such situations, the borrower/ executing agency must take the initiative in achieving full coordination between donors before the project begins.