



1. Project Data :		Date Posted : 06/28/2000	
PROJ ID: P004007 OEDID: L3602		Appraisal	Actual
Project Name : Second Cirata hydroelectric project	Project Costs (US\$M)	313.0	193.2
Country: Indonesia	Loan/Credit (US\$M)	104.0	64.1
Sector, Major Sect .: Hydro, Electric Power & Other Energy	Cofinancing (US\$M)	149.2	112.7
L/C Number: L3602			
	Board Approval (FY)		93
Partners involved : Government of Austria	Closing Date	06/30/1999	06/30/1999
Prepared by :	Reviewed by :	Group Manager :	Group:
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2. Project Objectives and Components

a. Objectives

The project had 7 objectives:

1. **Expand** the State Electricity Corporation's (PLN's) electricity generating **capacity** in Java and **improve reliability** ;
2. **Update** hydro **inventories** and carry out pre-feasibility studies for promising hydroelectric schemes;
3. **Strengthen** PLN's **capability** in the planning, investigation and operation of hydroelectric schemes and in environmental management of power projects;
4. **Study options** for enhancing the environmental conditions in the area of PLN's existing reservoirs on the Citarum River;
5. **Strengthen PLN's financial situation** ;
6. **Enhance** the **dialogue** on introducing a mechanism for **formula-based adjustment of electricity price**
7. Continue the process of **institutional restructuring of PLN** to provide for greater decentralization, delegation and commercialization.

b. Components

The project had 8 components:

1. Implementation of Phase II of the Cirata hydroelectric development;
2. Consulting services for engineering and construction supervision of the Cirata Hydroelectric Phase II Development;
3. Studies to update PLN's hydroelectric inventories and determine pre-feasibility of selected schemes;
4. Studies to identify options to enhance environmental conditions in the existing PLN reservoirs on the Citarum River and training of PLN staff in environmental management;
5. Training of PLN's staff in dam safety and instrumentation monitoring;
6. Power sector institutional and regulatory studies for GOI;
7. Studies aimed at assisting GOI to determine a long-term strategy for financing power sector investments;
8. Pre-construction stage engineering services for the Besai hydroelectric project of South Sumatra .

c. Comments on Project Cost, Financing and Dates

The total project costs were US\$ 193.2 million, which was US\$ 119.8 million less than appraisal. The savings in total project cost was due to (i) conservative engineering estimates; (ii) lower international inflation than projected in estimates of the price contingencies; (iii) Civil Works were 41 percent lower than estimates due to international competitive bidding; (iv) engineering and supervision costs were 35 percent lower than estimates due to international competitive bidding; and (v) reduction in technical assistance by 50 percent because of a reduction in the scope of technical assistance.

The Bank provided financing in the amount of US\$ 104 million. US\$26.0 million of the Bank loan was canceled on August 16, 1998. An undisbursed balance of US\$ 13.9 million was canceled on October 31, 1999. No loan extensions were granted. To assist with lack of counterpart funding due to the economic crisis in the Region, the Loan Agreement was amended to allow for an increase to 100 percent for the cost of local financing from April 1, 1997 to October 31, 1999.

The project was cofinanced by Austrian Export Credits (US\$149.2 million).

3. Achievement of Relevant Objectives :

1. **Expand** the State Electricity Corporation's (PLN's) electricity generating **capacity** in Java and **improve reliability**: This objective was achieved. The project satisfactorily achieved its primary objective to provide economical and environmentally sound expansion of PLN's peaking capacity, and to improve service reliability.
2. **Update** hydro **inventories** and **carry out pre-feasibility studies** for promising hydroelectric schemes: This objective was achieved. The hydro-inventory study was completed in July 1997. The pre-feasibility study was begun in August 1997.
3. **Strengthen** PLN's **capability** in the planning, investigation and operation of hydroelectric schemes and in environmental management of power projects: This objective was largely achieved. PLN has improved its capability for planning and operating hydropower schemes. PLN's two power generation subsidiaries have implemented all the recommendations for modification of the routine water quality monitoring programs and most of the recommendations for environmental data management and reporting. Some of the monitoring equipment has not been purchased because of budget constraints.
4. **Study the options** for enhancing the environmental conditions in the area of PLN's existing reservoirs on the Citarum River: This objective has been achieved. This objective was achieved by analyzing various options for environmental improvement and PLN's environmental staff, and the two subsidiary generating companies involved, have implemented most of the study's recommendations.
5. **Strengthen PLN's financial situation** : This objective was not achieved. PLN's financial position has weakened over the period during which the project was implemented and the company was unable to fully comply with the financial covenants established for it under the project. The Asian economic crisis greatly exacerbated this situation.
6. **Enhance** the **dialogue** on introducing a mechanism for formula-based adjustment of electricity price: This objective was partially achieved, to the extent that dialogue was indeed enhanced. The dialogue resulted in the introduction, by Presidential Decree, of the Electricity Tariff Automatic Adjustment Mechanism. However, the tariff was not sufficient to enable PLN to meet its ROR target and the use of the mechanism was suspended following the onset of the Asian economic crisis.
7. **Continue** the process of **institutional restructuring of PLN** to provide for greater decentralization, delegation and commercialization: This objective was partially achieved. The studies carried out by international consultants were the basis for a set of recommendations to the Government, but actual progress in implementing institutional reform has been slow.

4. Significant Outcomes /Impacts:

- The project was completed below cost estimates and has been operating at or about expected capacity. The ex-post economic analysis shows that it remains the least-cost supply alternative (with benefits measured on the basis of consumers' willingness to pay).
- The institutional development studies carried out by international consultants were the basis for a set of recommendations to the Government. The study included recommendations regarding sector structure, commercial policy, institutional and organizational changes and the introduction of competition and other incentive mechanisms to promote sector efficiency, together with an action plan for their implementation. The Government established a number of working groups to review and implement the consultants' recommendations and the study was the basis for the Government's Power Sector Restructuring Policy. The Power Sector Restructuring Policy serves as a blueprint for the sector's recovery, especially in meeting the challenges posed by the economic crisis and helping to reverse PLN's financial difficulties. However, the Policy has been slow in its implementation, thanks to political and economic crises. Nevertheless, ownership of the reform agenda at the middle management levels of Government and PLN has strengthened considerably and there are grounds for expecting that the pace will accelerate once a new President is appointed and a new cabinet is installed.

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

The key shortcomings of this project have to do with PLN's financial situation, which was adversely affected by (1) the Asian economic and financial crisis; (2) the Government's decision to keep the electricity tariff at artificially low levels; and (3) the independent power producers' commitments that were imposed on PLN by the Government.

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
Outcome:	Unsatisfactory	Marginally Unsatisfactory	OED rates the project Marginally Unsatisfactory on account of the full achievements of the project's primary physical objectives, which only partially

			offset the severe deterioration of PLN's finances and the slow progress on its institutional restructuring .
Institutional Dev .:	Partial	Modest	
Sustainability :	Uncertain	Uncertain	Primarily on financial grounds
Bank Performance :	Satisfactory	Satisfactory	
Borrower Perf .:	Satisfactory	Satisfactory	
Quality of ICR :		Exemplary	

7. Lessons of Broad Applicability :

- Environmental studies of the type included in this project must have the commitment of senior managers responsible for operations . This means that there must be adequate budgets and purchasing authority . Moreover, responsibility for the study must be incorporated into the job description of operations managers .
- Despite the good intentions of improving the financial performance of a public utility, in the end, the political and economic decisions of the government will be a significant factor determining the success of the reforms . In some cases, this is an unknown variable and is outside the control of the utility and the Bank .

8. Audit Recommended? Yes No

9. Comments on Quality of ICR :

This ICR is very clearly written and organized . The author went to some lengths to explain an alternative view (different from the SAR) of the economic viability of the Cirata II plant . This extra effort points to the kind of critical economic analysis that adds value to an ICR .