India

36 Industrial Pollution Control Project and Industrial Pollution Control Program

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This project's objective was to promote the improvement of the supervisory capacity and the law enforcement capacity of the staff of the West Bengal Pollution Control Board (WBPCB) by strengthening the organization for environmental data measurements, and thereby contribute to the improvement of the environment. The objective was also to promote capital investment by companies for environmental improvement with funds, and thereby contribute to prevention of pollution caused by companies in India nationwide.

Loan Amount/Disbursed Amount: 4,525 million yen/3,955 million yen **Loan Agreement:** February 1995

Terms and Conditions: Interest rate 2.6%; Repayment period, 30 years (grace period, 10 years); General untied (consultant's componet: partial untied)

Final Disbursement Date: October 2002 (capital investment for anti-pollution measures component); April 2003 (organizational strengthening component and technological cooperation component)

Executing Agency: Industrial Credit and Investment Corporation of India (ICICI) (capital investment for anti-pollution measures component) and West Bengal Pollution Control Board (WBPCB) and the Central Pollution Control Board (CPCB) (organizational strengthening component and technological cooperation component)

External Evaluator: Chiaki Nakamura (Global Link Management, Ltd.)
Field Survey: October 2004

Evaluation Result

In this project, procurement of the proper equipment for environmental data measurement and staff training (organizational strengthening and technological cooperation) and finance for anti-pollution measures (capital investment for anti-pollution measures) were provided almost as planed. The project period significantly exceeded the plan due to delays in the equipment procurement procedure and a decline in incentive for environment-related investments reflecting temporary economic slow-down. However, the project cost was lower than planned.

In the organizational strengthening and technological cooperation component, the usage rate of environmental data measuring devices at the West Bengal Pollution Control Board (WBPCB) improved. The number of monitored companies and water quality measurement stations increased from 5,950 to 19,500 and from 21 to 91, respectively, during 1997 to 2002. Besides, in the capital investment for anti-pollution measures component, companies received finance (9 companies) installed environmental equipment for exhaust, emission of particulate matter was reduced by one-third with installation of electrostatic precipitators. In Calcutta conditions were improved during the winter, when air pollution is relatively worse. The amount of suspended particulate matter (SPM) decreased from 283μg/m^3 to 178μg/m^3 during 1997 to 2002 (see chart below). The water pollution in Hugli River deteriorated slightly, but the biological oxygen demand (BOD) concentration is still within the environmental standard level (3 mg/l).Useful experiences gained by borrowing companies, such as using coke as a substitute for coal, are spreading to other companies through seminars.

There are no problems in the technical capacity, operation and maintenance system, or financial status of the Industrial Credit and Investment Corporation of India, the WBPCB, and the Central Pollution Control Board.

Third-Party Evaluator's Opinion

This project implemented environmental preservation in response to India's "New Economic Policy," and achieved reductions in air pollution and noise pollution. The capital investment for anti-pollution component of this project exerted positive effects on other companies in West Bengal through seminars.

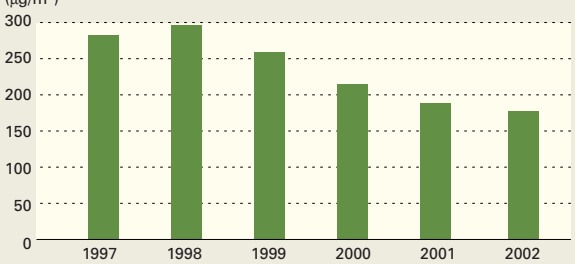
Third-Party Evaluator: Mr. Subrata Kumar Mandal (academia)
Obtained a doctoral degree in economics from Jawaharlal Nehru University. Currently holds position of senior economist at the National Institute of Public Finance and Policy, specializing in economics and environmental policy.

Equipment procured through this project

Effect of the Project: Reduction of SPM (Calcutta, winter)

The SPM level improved from 283μg/m^3 in 1997to 178μg/m^3 in 2002.

Trends in Calcutta's SPM Level (μg/m^3)



source: WBPCB