# **Ex-ante Project Evaluation**

Ex-ante project evaluations are carried out and then published as Ex-ante Evaluation Reports, immediately after the loan agreement is concluded.

## The significance and overview of ex-ante project evaluations

Ex-ante evaluations have been performed for all ODA loan projects that have been appraised since FY 2001 and the results have been released as Ex-ante Evaluation Reports immediately after the conclusion of the loan agreement. In addition to the confirmation of project necessities, effects and plans at appraisal, outcome targets are set using more quantitative indicators, and subsequent evaluation plans are clarified in ex-ante evaluations. In publishing this information as Ex-ante Evaluation Reports, JBIC is seeking to promote greater transparency and accountability. Ex-ante and ex-post evaluations play a critical role in improving the quality of ODA loan projects.

#### List of ex-ante evaluations published in FY 2003

Country Name	Project Name
China	Public Health Project Jiangxi Afforestation Project Hubei Afforestation Project Huhhot Environmental Improvement Project Inland Higher Education Project Broadcasting Infrastructure Improvement Project
Indonesia	Muara Karang Gas Power Plant Project Muara Tawar Gas Fired Power Plant Extension Project Tanjung Priok Gas Fired Power Plant Extension Project Semarang Power Plant Rehabilitation and Gasification Project Lahendong Geothermal Power Plant Project Railway Double Tracking on Java South Line (2) Rehabilitation and Improvement Project of Jakarta Fishing Port Maritime Telecommunication System Development Project (4) The Urgent Rehabilitation Project of Tanjung Priok Port Surabaya Airport Construction Project (2)
The Philippines	Armm Social Fund for Peace and Development Project Central Mindanao Road Project Arterial Road Bypass Project (1) (Plaridel and Cabanatuan)
Viet Nam	Power Sector Loan O Mon Thermal Power Plant unit No.2 Construction Project Dai Ninh Hydropower Project (3) Southern Viet Nam Water Supply Project (2) Red River Bridge Construction Project (3) Thac Mo Hydropower Station Extension Project Transport Sector Loan for National Road Network Improvement Hanoi - HCMC Railway Line Bridges Safety Improvement Project
India	Delhi Mass Rapid Transport System Project (5) Purulia Pumped Storage Project (2) Dhauliganga Hydroelectric Power Plant Construction Project (3) Rengali Irrigation Project (2) Kurnool-Cuddapah Canal Modernization Project (2) Umiam Stage II Hydro Power Station R&M Project Bisalpur Jaipur Water Supply Project (Transfer System) Integrated Natural Resource Management and Poverty Reduction in Haryan
Kazakhstan	Astana Water Supply and Sewerage Project
Macedonia	Zletovica Basin Water Utilization Improvement Project
Egypt	Cairo-Alexandria Transmission System Project Zafarana Wind Power Plant Project
Morocco	Rural Secondary Education Expansion Project
Tunisia	Water Pipeline Construction Project in Northern Tunisia
Kenya	Sondu/Miriu Hydropower Project (2)





A bridge on Vietnam's Hanoi-Ho Chi Minh City railway: some sections are



The Delhi mass rapid transport system is an important link for citizens



# **An Example of Ex-ante Evaluation Report Egypt "Zafarana Wind Power Plant Project"**

In Egypt, which has approximately 20 percent of its population in the Middle East, annual power consumption in twenty years will become three times as much as that in 1997 and severe supply shortages due to the rapid increases in demand are concerned. In FY 2003, JBIC concluded the loan agreement for the Zafarana Wind Power Plant Project. This project involves the construction of a 120MW wind power plant in Zafarana, approximately 220 kilometers southeast of the capital Cairo to increase supplies of power, alleviate atmospheric pollution by curtailing the use of fossil fuels, reduce greenhouse gas emissions and contribute to the suppression of global warming.

Seven indicators were set up to facilitate evaluation of the project, including the "utilization factor" and "unplanned outrage hours" to evaluate the appropriateness of plant operations; "availability factor" to confirm whether the plant is being used for a fixed amount of time, and "maximum output" to assess whether plant performance is being maintained / exerted. Of these indicators, "reductions in CO2 emissions", which will be used to determine whether or not the project contributes to the improvement of environment, will be calculated using annual CO2 emissions at a standard Egyptian thermal power plant assuming that same amount of power was produced as this project.

One lesson for this project that can be obtained from similar projects undertaken in the past is that while the power plant was completed on schedule, delays in the construction of transmission lines and substations delayed the realization of project effects. Therefore, the responsibilities of two executing agencies have been made clear in this project and sufficient inter-agency information sharing and progress reports (monitoring) will enable project effects to be generated as planned.

### **Evaluation Indicators and Internal Rates of Return (IRR) set** in the Ex-ante Evaluation

Evaluation Indicators	Target (two years after completion)
Utilization factor	40%
Availability factor	97%
Maximum output	120MW
Net electric energy production	415GWh/year
Reductions in CO <sub>2</sub> emissions	270 thousand tons/year
Unplanned outage hours (due to mechanical outage, natural disasters, etc.)	0 hours/year
Planned outage hours (per unit)	13 hours/year
Economic internal rate of return (EIRR)	16.9%
Financial internal rate of return (FIRR)	1.22%



8. Plans for future evaluations

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1.	Name of the project
2.	Necessity and relevance of JBIC assistance
3.	Project objectives
4.	Project outline
5.	Output targets
6.	External risk factors
7.	Lessons learned from the findings on similar projects undertaken in the past

