



China

## 24 Shanghai Baoshan Infrastructure Improvement Project (1) (2)

**A** This project's objective was to address the increase in the demand for coal and iron ore, etc. by constructing port facilities in the Shanghai Baoshan District, and to meet the rapidly increasing demand for electric power by constructing a thermal power plant, thereby contribute to economic development of the region through the growth of the steel industry.

**B**

**C**

**D**

**Loan Amount/Disbursed Amount:** 30,999 million yen/20,890 million yen

**Loan Agreement:** January 1995/November 1995

**Terms and Conditions:** Interest rate, 2.6%(1)/2.3%(2); Repayment period, 30 years (grace period, 10 years); General untied

**Final Disbursement Date:** February 2002, December 2002

**Executing Agency:** Planning Commission, Shanghai Municipal People's Government



**External Evaluator:** Mitsue Mishima (Overseas Project Management Consultants, Ltd.)

**Field Survey:** November 2004

### Evaluation Result

In this project, the mooring facilities (3 berths) and a thermal power unit (350MW), etc. were constructed almost as planned. The project period was slightly longer than planned due to the time required for the adjustment of the boiler in preparation for normal operation, but the project cost was lower than planned.

The amount of cargo handled and berth occupation ratio have been increasing every year, and the amount of cargo handled in 2003 reached almost 90% of the handling capacity of 14 million tons/year. Berth occupation ratio and average waiting time in 2004 were 70% and 19 hours respectively, as against the planned 69% and 27 hours. Power generation reached 2,428GWh/year in 2003, exceeding the planned 2,303GWh/year. Plant load factor and availability factor in 2003 were 79% and 92%, as against the planned 75% and 79%.

At the major beneficiary company (Baoshan Iron and Steel Co., Ltd.), production of crude steel increased from 7.5 million tons in 1999 to 11.55 million tons in 2003, and production of its major customers' products such as automobiles and home electric appliances marked a

significant increase. Regarding the environment, measures have been taken to minimize negative impact, and include treatment of wastewater at the port and the use of low sulfur coal at the power plant.

There is no problem with the technical capacity and the operation and maintenance system of Baoshan Iron and Steel Co., Ltd., which carries out operation and maintenance, and its financial status is good.

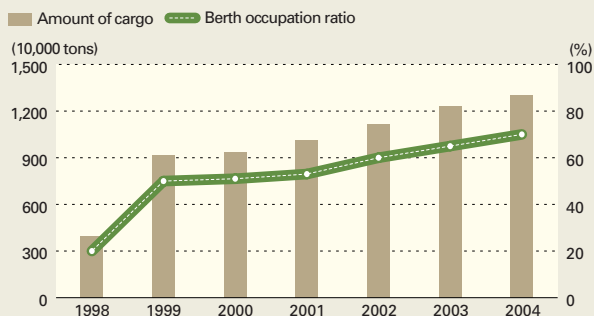
### Third-Party Evaluator's Opinion

This project contributed to the economic growth of Shanghai by providing port and power generation facilities. It is expected that environmentally-conscious policies will be adopted in Shanghai.

**Third-Party Evaluator:** Ms. Xie Yingxia (academia)

Obtained a bachelor's degree in environmental engineering from Tsinghua University. Presently holds the post of Director General of Infrastructure Planning Design, China Academy of Urban Planning and Design. Specializes in environmental engineering.

#### Changes in the amount of cargo handled and berth occupation ratio



Source: Baoshan Iron and Steel Co., Ltd.

The total amount of cargo handled at all port berths in Shanghai in 2003 was 316 million tons. The berth constructed under the project has a handling capacity of 14 million tons/year, equivalent to 4.4% of the above amount.

#### Operation and maintenance of facilities constructed under the project

Facilities constructed under the project are operated by Baoshan Iron and Steel Co., Ltd., where training for employees is conducted on a regular basis. In addition, the technical capability of employees is evaluated every year based on the conditions of facilities, the performance of each employee, etc.



The boiler of the power plant