JBIC Ex-post Monitoring Report

Project Name: Thailand “Map Ta Phut - Sattahip Water Pipeline Project”

[Outline of Loan Agreement]
Loan Amount/Loan Disbursed Amount: 1,459 million yen/1,052 million yen
Signing of Loan Agreement: November 1988
Final Disbursement Date: March 1994
Ex-post Evaluation: 1998
Executing Agency: Royal Irrigation Department (RID), Ministry of Agriculture and Cooperatives

[Project Objective]  (Field Survey: January, 2005)
This project was to construct water supply pipelines in the southern coastal region of the Eastern Seaboard located east of Bangkok in order to accommodate the demand for safe water, which is increasing with the population growth in the target region, and thereby contribute to the improvement of the living standards of the residents.

[Outline of Results]

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<th>Item</th>
<th>Ex-post Evaluation</th>
<th>Ex-post Monitoring</th>
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<td>[Effectiveness and Impact]</td>
<td>(1) Addressing the demand for water supply in the target region</td>
<td>(1) After the ex-post evaluation, with the gradual completion of water purification and distribution facilities by PWA, the water conveyance volume has steadily increased from 1998 to 2004 (3.3-fold increase) to reach 52% of the design supply capacity. An increase in the capacity of the water purification plant is planned from the current 6,850 m³/day to 12,054 m³/day in Banchang and from 12,000 m³/day to 31,200 m³/day in Sattahip by the end of 2005. As construction of these facilities is accelerated, a further increase in water conveyance volume is expected. It is predicted that the initially planned water conveyance volume (14.0 million m³/year) will be achieved in several years, however, it will depend on the extent of increase of the water demand in Pattaya where the water from the new water treatment system in Sattahip which is under construction will be provided.</td>
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<td>(2) Contributing to the improvement of the living standards of the residents of Ban Chang and Sattahip District by supplying domestic water, and also contributing to industrial development of the Eastern Seaboard.</td>
<td>(2) The number of households provided with a water supply in Ban Chang and Sattahip Districts has increased by 12% and 47% respectively on an annual average since 1998.</td>
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<td>(2) Five water supply projects including this project have achieved the intended objective of addressing the water demand, which is increasing with the industrialization and urbanization of the Eastern Seaboard.</td>
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### [Sustainability]

#### (1) Technical Capacity/O&M System/Financial Status

- **Operation and maintenance activities**: Performed by East Water, which was granted a 30-year right to manage the water supply business by the government in 1992. Since the start of the operation, the company has been making efforts to improve efficiency through automation. It has a sufficient number of employees (65) and a structured training system.

- **Financial Status**: The financial status is sound with a capital ratio of 54.0% as of 2004. The ordinary profit increased steadily to reach 445.6 million baths in 2004 (from 178.9 million baths in 1998). Further increase in income is expected with the increase in water supply volume.

#### (2) O&M Status

- **O&M Status**: No problem

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### [Lessons Learned, recommendations, Data Information and Monitoring Method]

#### (1) Follow-up of the lessons learned and recommendations made in the ex-post evaluation and SAPS conducted after the ex-post evaluation

- **Lessons Learned**: None. (As the ex-post evaluation was conducted as program evaluation, no particular project base lessons learned or recommendation is made.)

#### (2) Lessons learned in the ex-post monitoring and recommendations for maintaining sustainability

- **Lessons Learned**: None. (As the ex-post evaluation was conducted as program evaluation, no particular project base lessons learned or recommendation is made.)

- **Future increase of water volume of this pipeline**: Depends on the extent of water consumption in Pattaya where the water from the new water purification plant which is now under construction is provided. Thus, it is suggested that RID and East Water should pay attention to the future water demand of Pattaya.

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