



Thailand

2 Bangkok Water Supply Improvement Project (4-2) (5) Networks System Improvement Project

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This project's objective was to cope with increasing water demand and reduce water leakage, as well as to improve water quality by constructing water treatment plants and distribution pumping stations and improving distribution network systems in the Bangkok Metropolis, thereby contributing to improved public health and enhancing industrial and commercial activities.

Loan Amount/Disbursed Amount: 22,568 million yen/15,410 million yen

Loan Agreement: January 1993, September 1993

Terms and Conditions: Interest rate 3.0%; Repayment period 25 years (grace period 7 years); General untied

Final Disbursement Date: November 2000, January 2001

Executing Agency: Metropolitan Waterworks Authority



External Evaluator: Atsushi Fujino (KRI International Corp.)

Field Survey: December 2004

Evaluation Result

In this project, construction of water treatment plants and distribution pumping stations, and improvement of distribution network systems, were achieved almost as planned. The project period was much longer than planned because of delays in obtaining construction permission, suspension of works due to flooding, and cash-flow problems of contractors due to the Asian economic crisis. However, the project cost was lower than planned.

The water production volume of the constructed Maha Sawat water treatment plant in 2003 was 125 million m³/year, or 86% of the planned 146 million m³/year. With the construction of additional trunk mains, the percentage of population served by public water system in Bangkok Metropolis in 2003 increased to 87.5%, exceeding the planned 80.1%. Water quality satisfies the standards set by the WHO (World Health Organization). The number of beneficiaries of this project is 6.93 million persons (population of Chiba Prefecture: 6.02 million). In the beneficiary survey, more than 80% of respondents answered that "access to water supply and stability of water services (water volume, pressure, and quality) has been improved".

The number of cases of acute diarrhea per 100,000 people in Bangkok decreased from 878 in 1998 before the project to 677 in 2002, showing that the project contributed to the improvement of sanitary conditions by helping reduce waterborne infectious diseases.

There is no problem with technical capacity, and the operation and maintenance system of Metropolitan Waterworks Authority, and its financial status is good.

Third-Party Evaluator's Opinion

As a result of this project, safe water is supplied at reasonable cost on a stable basis. Issues regarding the relationship between Bangkok and the area that supplies water, water leakage and water theft, and proper water charges, need to be addressed to ensure sustainability.

Third-Party Evaluator: Mr. Chuvej Chansa-ngavej (academia)

Obtained a doctoral degree in management research from Ohio State University. Presently holds the post of Deputy Dean, School of Management, Shinawatra University. Specializes in business administration and industrial engineering.

Maha Sawat water treatment plant constructed under the project



Effect of the project: improvement in water supply services

Results of the beneficiary survey on water supply services

Legend: Largely improved (dark green), Just improved (light green), Slightly improved (tan), Not improved (dark brown)

