



## Thailand

# 2 Three Provincial Cities Water Supply Expansion Project, Three Southern Provincial Cities Water Supply Expansion Project

This project was designed to prepare for future increases in water demand and to improve access to water by constructing water filtration plants and others in the six cities of Chiang Mai, Ubon Ratchathani, Suphan Buri, Phetchburi, Surat Thani, and Phattalung, and thereby contribute to the improvement of sanitation and regional development.

**Loan Amount/Disbursed Amount:** 8,982 million yen/4,784 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:** May 2000, January 2001

**External Evaluator:** Mitsue Mishima, (OPMAC, Ltd.)

**Field Survey:** July 2003



## Evaluation Result

In this project, construction of water filtration plants and expansion of water pipes and conduits was carried out almost as planned. The project period was longer than planned because of extensions of the water pipes and conduits and because of the delay in budget outlays by the executing agency due to the Asian Economic Crisis in 1997 and 1998. However, the project cost was smaller than planned. To compare the daily amount of water supplied on an average in 2002 at the filtration plants in the six cities (population approx. 5.8 million (cf. population of Hyogo Prefecture, Japan, 5.78 million)) with the planned amount (for 2005), in Suphan Buri 1.6 times the planned amount is being supplied. In Ubon Ratchathani, Phetchburi, Surat Thani, and Phattalung, approximately 80% of the planned amount is currently being supplied. Considering that the projection year (2005) has not yet arrived, the figures can be considered satisfactory. Only in Chiang Mai was the level somewhat low, at approximately 60% of the planned level. However, this is due to limitations enforced by the Royal Irrigation Department (RID) on the amount of water that can be taken from the reservoir, and the plan is to draw water from other regions into the reservoir, and that water will be supplied to the system in the future. In the beneficiary survey in Ubon

Ratchathani, Phetchburi, and Phattalung, when asked about the benefits of the project, 79% to 97% of respondents in each region replied that it brought "improved sanitation," and 80% to 98% replied that it produced "time-saving effects (alleviation of water-hauling labor)." The Provincial Waterworks Authority (PWA), which is the project's executing agency, is currently working on consignment of operation and management activities and on improving the efficiency of budget management, and there are no problems in its technical capacity, operation and maintenance system, or financial status.

## Third-Party Evaluator's Opinion

As other public projects in Thailand, the six provincial waterworks projects were late in their completion. Nevertheless, it can be argued that the benefits accrued to the customers of these waterworks expansion projects were quite large, especially in terms of enjoyment or convenience in life that the availability of these water services have brought to the people in the local areas.

**Third-Party Evaluator:** Medhi Krongkaew

Obtained a doctorate in economics from Michigan State University. Presently holds the post of professor of economics, and director of Center for Poverty Studies, School of Economics, National Institute of Development Administration (NIDA). Specializes in economics and economy in East Asia.

Water service customer in Phattalung



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Filtration plant in Phattalung



In 2002, this filtration plant supplied a daily average of 8,140 m<sup>3</sup> of water. The planned level for 2005 is 10,047 m<sup>3</sup>, and so in 2002 the plant had already achieved 81% of the planned level.

## Daily Average Water Supply: Comparison of Planned Amount and Actual Amount

Source: Actual amounts (1990) and planned amount are provided by JBIC appraisal materials, and actual amounts (2002) are provided by PWA.

