



Asia China



# Tangshan Water Supply Development Project

Contributing to the improvement of the living environment through the supply of safe water 24 hours a day by developing water supply facilities

**[External Evaluator]**

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**Rating**

Effectiveness, Impact	b	Overall Rating <b>B</b>
Relevance	a	
Efficiency	b	
Sustainability	a	

**Project Objectives**

To meet the increasing water demand in Tangshan City due to economic development and urbanization, and to provide safe and stable water supply, by constructing water supply plants with a total supply capacity of 210,000 m<sup>3</sup>/day in the six districts / counties (Guye District, Luannan County, Qian'an City, Qianxi County, Tanghai County, Fengnan District) in Tangshan City, thereby contributing to the improvement of the living environment.

**Outline of the Loan Agreement**

- Loan amount / Disbursed Amount: 2,841million yen / 2,835 million yen
- Loan agreement :March 2001
- Terms and conditions: 1.3% interest Rate; 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: July 2006
- Executing agency: Tangshan Municipal People's Government

**Effects of Project Implementation (Effectiveness, Impact)**

The implementation of the project increased water supply capacity as planned (210,000 m<sup>3</sup>/day). Before the project, water supply was conducted only at morning, day and night for a total of 6-8 hours. After the project, the water supply system runs 24 hours a day. In addition, before the project, many households were using self-drilled wells with sanitary problems, but after the project, safe water, 100% of which passes water quality tests, is now being supplied to each household. The beneficiary survey indicated that, beneficiaries recognize that water pressure (94% of respondents), color, taste, and smell (86% respectively) improved due to the project. The same survey reported the improvement of living environment and contribution to economic activities, such as decrease of water fetching labor, decrease in the need to store water in basins, and improvement of sanitary conditions, as effects of the project. However, many households and companies are still using self-drilled wells, which have problems on safety, and the utilization rate of the facilities has not reached 80% in any one of the districts/counties. Therefore, this project has produced certain effects, and its effectiveness is moderate.

**Relevance**

This project has been highly relevant with China's national policies and development needs at the times of both appraisal and ex-post evaluation. The Tangshan City's 9th Five-Year Plan aimed to achieve coverage of 95% (year 2000) of water supply system in counties other than the urban areas at appraisal. At the ex-post evaluation, the Tangshan City's Long term Plan 2010 aimed at increasing the coverage of water supply system to 100% (year 2010).

**Efficiency**

Though project cost was lower than planned (85% of the plan), project period took much longer than planned (204% - 377% of the plan); therefore the evaluation for efficiency is moderate. The causes for delay included: 1) the initial planned construction period (22months) was not realistic, 2) the Project Office was responsible for the procurement of major equipment for all six districts/counties with different commencement dates and construction periods and thus coordination required substantial time.

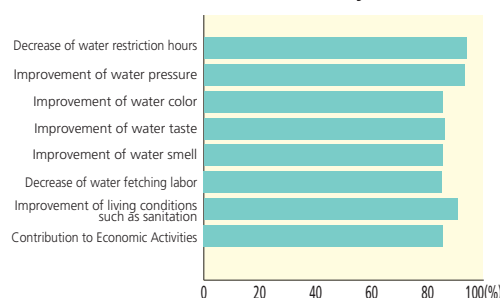
**Sustainability**

The current financial status of the water supply companies responsible for operation and management (O&M) of this project is not at a desired level, but improvement is anticipated. No major problems have been observed in the O&M system and techniques of any one of the water supply companies in the respective six district / counties. They have the required number of well skilled personnel as well as an organized O&M manual and training system, and the operation and management status is fair. Therefore, sustainability of this project is high.

**Conclusion, Lessons Learned and Recommendations**

In light of the above, the project is evaluated to be satisfactory. Lessons learned are that in a project involving a number of water supply companies across administrative regions, it is desirable to conduct procurement capacity assessment for each and to entrust the construction and the procurement of equipment if their capacity is judged to be sufficient. As for recommendations, stricter enforcement of regulations to close down self-drilled wells and maintaining a steady supply of safe water from the system or wells developed by the project is proposed.

**Beneficiaries' Satisfaction on Project Effects**



[Source] Beneficiary Survey

\*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda\\_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))