



Latin America **Colombia**



# Bogota Water Supply Improvement Project

Constructing reservoirs and related facilities to stabilize water supply, thereby improving living conditions and supporting industrial development

**[External Evaluator]**

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**Rating**

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

**Project Objectives**

To expand the water supply capacity of the water treatment plant, to stabilize the water supply, and to increase the number of population served by constructing a reservoir and pumping station, installing a monitoring and controlling system, and procuring vehicles and heavy machines in Bogota City, thereby contributing to the improvement of the health of the residents and to the industrial development of the city.

**Outline of the Loan Agreement**

- Loan amount / Disbursed amount: 8,375 million yen / 6,374 million yen
- Loan agreement : December 1991
- Terms and conditions: 4.75% interest rate; 25-year repayment period (including a 7-year grace period); compound untied
- Final disbursement date: December 2004
- Executing agency: Bogota Aqueduct and Sewer Company (Empresa de Acueducto y Alcantarillado de Bogota) (EAAB)

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

The initial plan anticipated average supply of water to be 2,113 thousand m<sup>3</sup>/day in 2005. The actual value in 2008 was 1,299 thousand m<sup>3</sup>/day, falling short of the initial plan. This is due to the decrease in water demand since the mid-1990s, resulting from 1) improvements in the water tariff structure (raising water rates) by the executing agency and the water-saving campaign promoted by the Bogota municipal government, and 2) appropriate measurement and control of water consumption due to the placement of water meter equipment to each household. The population of Bogota city is increasing and it is expected that in the future, water demand will rise again, and volume of water supply will increase accordingly. The beneficiary survey shows that the water quality and pressure are generally fair, and the water service provided by the executing agency is gaining credibility from the beneficiaries. Therefore, this project has largely achieved its objectives, and its effectiveness is high.

**Relevance**

This project has been highly relevant with Colombia's national policies and development needs at the times of both appraisal and ex-post evaluation. At the time of appraisal, securing backup water source and constructing the supporting facilities to provide stable clean water were regarded as necessary. At the time of the ex-post evaluation, this project retains its high level of importance as a foundation for consecutive supply of clean water and to meet future increase in demand.

**Efficiency**

Though project cost was lower than planned (92% of the plan), project period was much longer than planned (356% of the plan); therefore, the evaluation for efficiency is moderate. The main cause for the delay is as follows; while a turnkey contract was introduced for the procurement of the monitoring and control system under which a detailed design was to be implemented by a contractor, the executing agency was unfamiliar with the procurement procedures, and preparation of the bidding documents and the procurement procedures required a long time.

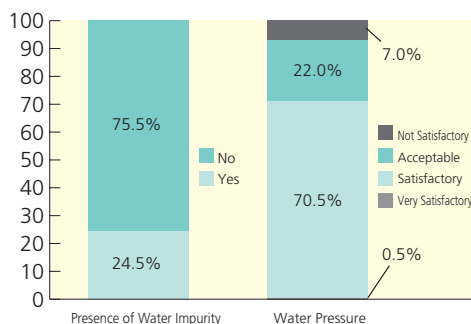
**Sustainability**

No major problem has been observed in the capacity of the executing agency nor its operation and maintenance system, therefore, sustainability of this project is high.

**Conclusion, Lessons Learned and Recommendations**

In light of the above, this project is evaluated to be highly satisfactory. With regards to the delay in procurement of the monitoring and control system, the procurement capacity of the executing agency could have been forecasted to some extent. Aid organizations should have verified the capacity of the executing agency at an early stage and carried out more necessary and efficient coordination with the executing agency from the commencement of the project until its completion.

**Results of 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/))

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