A
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Indonesia

7 Bili-Bili Multi-purpose Dam Project (1) (2) (3)

The project's objectives were to alleviate flood damage, stabilize supplies of mains, industrial and irrigation water and respond to projected surges in the demand for power via the construction of a multipurpose dam and related facilities in the city of Makassar, the main city in Sulawesi, and thereby contribute to economic growth in the city.

Loan Amount/Disbursed Amount: 30,948 million yen/25,165 million yen
Loan Agreement: October 1990-November 1994
Terms and Conditions: Interest rate, 2.5% (1)/2.6% (2) (3); Repayment period, 30 years (grace period, 10 years); General untied
Final Disbursement Date: December 1999-December 2001
External Evaluator: Takuya Okada (KRI International Corp.)
Field Survey: July 2003

Evaluation Result

Dam construction and ancillary works were implemented almost as planned. The work was basically completed as planned, while actual project costs were lower than the planned in consequence of competitive bidding, which led to efficient ordering. The Jeneberang River was capable of handling floods with a 10-year return probability*1 prior to implementation, while it is now capable of handling floods with a 50-year return probability*1 due to this project. Furthermore, the fact that no external overflow*2 occurred during the torrential rains of 2002 (25-year flood probability) confirms the effectiveness of the project (it is estimated that approximately Rp140 billion 's worth of assets (approx. 1.4 billion yen) were protected). Respondents in the beneficiary survey also stated that: "there has been less damage to household effects and furniture, destruction of property and so forth." 95% of the beneficiaries stated that reduced flood damage means that: "the project has supported economic activity in the region", confirming that improvements in the living environment have helped to stabilize economic growth. This project benefited approximately 1.2 million people (the population of Makassar and its environs; the population of Kawasaki city, Japan, is approximately 1.3 million). From an environmental perspective, in addition to the measures called for in the Environmental Impact Assessment (EIA), a green belt was created by planting trees around the dam lake in consideration of the natural environment and the view, and concern was shown to the residents affected by relocation through the development of infrastructure at the new settlement. Mains water is supplied to the city of Makassar from the dam and the irrigation project and hydroelectric power plant project are ongoing. There are no problems in the technical capacity, or operation and maintenance system of Jeneberang River Basin Development Project office of the Ministry of Public Works, the project's executing agency, and its financial status are also in favorable condition. To further enhance the effects of this project, it is recommended that the municipal government of Makassar conduct the internal water drainage*3 plan described in the master plan at an early stage.

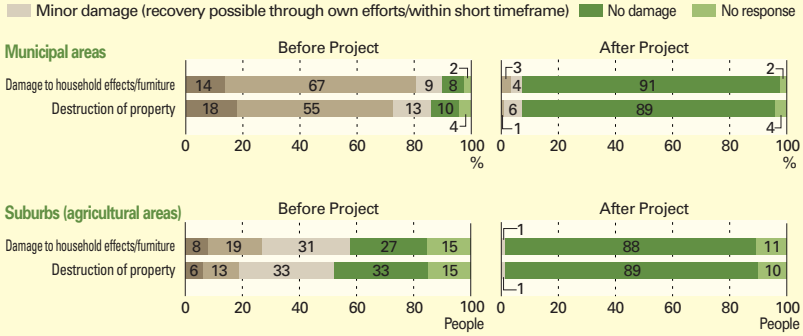
*1 Floods on a scale that occurs roughly once every ten years (50 years/25 years)
*2 Water from the river inundates areas where there are no revetments, etc.
*3 To drain stalled rain water from municipal areas into the river

Third-Party Evaluator's Opinion

The project confirms to the priority of the Indonesia's government policy to improve people's quality of life and also enables significant foundation for more economic opportunities for the Makassar city, such as clean (drinkable) water and irrigation for agriculture, Environmental and social issues have been addressed carefully and the majority of people were satisfied.

Third-Party Evaluator: Mr. Bambang Permadi Soemantri Brodjonegoro
Obtained a doctorate in urban regional planning from University of Illinois. Presently holds the post of Professor, Faculty of Economics, University of Indonesia. Specializes in urban regional planning, economics of development, regional economics, etc.

Comparison of Flood Damage: Before/After Project (Beneficiary Survey)



According to results from the beneficiary survey, flood damage due to external overflow, which used to be a serious problem, has been broadly eliminated with the completion of this project.

Children in a beneficiary region located in the Pangkabinanga village, Pallanga provice

Sections of the village in the vicinity of the Jeneberang River were subject to frequent flooding during the 1980s and were hazardous and unstable due to erosion of the river banks, but the construction of the dam has eliminated these concerns and it has become possible to build new houses along the banks of the river.