

Asia Philippines

# Agno and Allied Rivers Urgent Rehabilitation Project

Contributing to mitigating flood damages by rehabilitating existing flood control facilities

#### [External evaluator]

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| Rating                |   |                |
|-----------------------|---|----------------|
| Effectiveness, Impact | а |                |
| Relevance             | а | Overall rating |
| Efficiency            | b | В              |
| Sustainability        | b |                |
|                       |   |                |

### **Project Objectives**

To reduce flood damages by rehabilitating existing flood control facilities for which urgent measures are necessary on the lower reaches of the Agno River and the upper reaches of the Sinocalan River, thereby contributing to the stability of people's livelihood and the development of the regional economy.

#### **Outline of the Loan Agreement**

Loan amount / disbursed amount: 8,312 million yen / 8,280 million yen

- Loan agreement: August 1995
- Terms and conditions: 2.5% interest rate (2.1% for consulting services); 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: June 2005
  Executing agency: Department of Public Works and
- Highways (DPWH)
- Website URL: http://www.dpwh.gov.ph/



Bank revetment along the Sinocalan River



Rehabilitation of a levee on the right bank of the Tarlac River



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

A flood inundation analysis suggests that this project is supposed to reduce the damage of 5-year flood and 10-year flood to zero. In fact, no flood inundations have occurred as a result of a levee crevasse along the main course of the Agno River since the project completion.

According to a beneficiary survey of 218 local residents (188 people along the Agno River and the remaining 30 people along the Tarlac River), around 80% of residents recognize that the project has reduced the frequency, scale and risks of flood / inundation damages as well as reducing their concerns about these damages. Seventy-six percent of the respondents, or 116 residents, said that the reduced risks of flood / inundation damages contributed to improvement of their livelihood and job situation. In addition, 82% or 178 respondents have recognized improved health conditions in their communities due to the project. Some 89% or 160 respondents of the 188 residents along the Agno River have recognized that the asphalt pavement of the levee on the right bank of the river has resulted in better access.

Therefore, this project has largely achieved its objectives and its effectiveness is high.

## Relevance

This project has been highly relevant with the Philippines' national policies and development needs at the times of both appraisal and ex-post evaluation. At these points in time, the development of flood control facilities in the areas affected by flood damages in the major river basins remained a priority in order to prevent the loss of people's lives and their property.

#### Efficiency

This project's cost was lower than planned, but took longer than planned (148% of the planned period); therefore, the evaluation for efficiency is moderate. The main reason for the delay is additional project components, including rehabilitation work for facilities that were damaged by a typhoon during the construction period.

## Sustainability

No major problems have been observed in the technical and structural aspects of the Agno flood control project management office, which is responsible for the maintenance of the Agno and allied rivers. On the other hand, there are concerns about the financial aspect of the operation and maintenance of the project. Budget allocations and expenditure on O&M have been decreased dramatically for the past few years, although there are some signs of improvement in securing budget. Therefore, sustainability of this project is fair.

#### Conclusion, Lessons Learned, Recommendations

In light of the above, this project is evaluated to be satisfactory. Sustaining the effects of this project requires the appropriate management of not just the rehabilitated facilities but also the river basin as a whole. It is essential to continue securing appropriate levels of O&M budget allocations. DPWH is advised to collaborate with other related organizations to collect and manage data of the scale and damage of actual floods and inundations, given the difficulty in measuring the effect of reducing flood damage.