



14 The Philippines

Rehabilitation and Maintenance of Bridges along Arterial Roads (1)(2)

Contribution to smoother regional arterial road traffic in the Philippines

Loan Amount/Disbursed Amount 4.144 billion yen/3.836 billion yen
Loan Agreement February 1990, July 1991
Terms & Conditions Interest rate 2.7%, Repayment period 30 year (grace period 10 years), General untied (consulting services for (1) are partially untied)
Final Disbursement Date May 1997, October 1997
Executing Agency Department of Public Works and Highways (<http://www.dpwh.gov.ph/>)



Project Objectives

The project objective was to ensure smoother arterial road traffic by rehabilitating bridges on the Philippine-Japan Friendship Highway and the Manila North Road, and thereby contribute to the promotion of the Philippine regional economy and to improvements in the lives of local residents.

Effectiveness & Impact

Rating **a**

It was confirmed that due to the bridge rehabilitation carried out under this project, passage became possible even during floods, congestion was eased by bridge widening, and there is no longer need for detours to avoid risks from disrepair or deterioration when traveling. Related to this, in the beneficiary survey, 31 out of 59 people gave the opinion that travel time to public facilities—like hospitals, schools, and city government offices—was 12 minutes shorter on average, compared to before project implementation. Also, in the beneficiary survey (of 130 people) carried out in all 12 barangays* targeted by the project, it was confirmed that travel time, safety, and comfort had improved when compared to before project implementation. It was also confirmed that weight and speed limits had eased due to bridges' increased design load, road traffic flowed more smoothly, and efficiency in moving people and goods had increased. It also became clear from the beneficiary survey that, due to widened bridges, two-way traffic had become possible, which had reduced congestion from one-way traffic and the risk of minor accidents between cars. Accidents resulting in injury or death had been reduced through the installation of footpaths, travel time to public facilities like hospitals and schools had reduced, and greater truck loads had become possible due to bridges' increased design loads. Therefore, this project has largely achieved its objectives, and effectiveness is highly satisfactory.

*Philippine administrative unit



Large Truck Traffic at Indiana Bridge

Relevance

Rating **a**

This project has been highly relevant with Philippine's national policies both at the time of the appraisal and at the time of the ex-post evaluation. This project was planned under the Medium-Term Philippine Development Plan (1987–92), and the Medium-Term Infrastructure Investment Plan (1986–92). Expansion of the road network and safe and efficient road improvements continue to be emphasized, even at the time of ex-post evaluation.

Efficiency

Rating **b**

Project cost was lower than planned (about 96% of planned amount), but the project period longer than planned (about 120% of planned period); therefore the evaluation for efficiency is moderate. A consultant was changed in Phase I, and that process took time, which caused delays. The Phase II work schedule was managed to implement civil work in the dry season so that it finished four months earlier than initially planned.

Sustainability

Rating **b**

Though some problems have been observed in terms of insufficient staff and operation and maintenance budget, sustainability of this project is moderate. The executing agency employs residents nearby the bridges for regular operation and maintenance, and contracts bridge repairs and other work to private companies.

Conclusion, Lessons Learned, Recommendation

In light of the above, this project is evaluated to be satisfactory. After bridge rehabilitation there were reports of congestion and noise problems due to increased traffic volume and traffic accidents caused by higher speeds. As for a recommendation of this project, it is hoped to take safety measures for the rehabilitated bridges, such as installing signs for weight and speed limits.

Third-Party Opinion

The number of bridges completed in this project was reduced from the initial plan, but was carried out appropriately, based on the budget and necessity. For operation and maintenance, it is important to promote a cooperative system with residents and the private sector, along with giving discretion over budget use to district offices.

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