



9 Indonesia Rehabilitation of Bridges for Java North Line (1)(2)

Helping ensure a means of transportation for low-income groups by improving the safety and punctuality of the Java North Line

Loan Amount/Disbursed Amount 9.159 billion yen/8.912 billion yen
Loan Agreement October 1992, December 1995
Terms & Conditions Interest rate 2.3%–2.6%, Repayment period 30 year (grace period 10 years), General untied (consulting service in (1) partially untied)
Final Disbursement Date November 2001, December 2003
Executing Agency Directorate General of Land Transport (the present Directorate General of Railways) (<http://www.dephub.go.id/english>)

Project Objectives

The objective of this project was to strengthen transport capacity, ensure operation of the North Line, and reduce transit time by restoring railway bridges and six bridge inspection and repair stations on the Cikampek-Semarang section (359 km) and the Tobo-Babat section (64 km) of the Java North Line, which links Jakarta to Surabaya, and thereby contribute to improving the safety and punctuality of this railway and securing a means of transport for low-income groups.

Effectiveness & Impact

Rating **a**

Transportation capacity was expanded through this project by reinforcing bridge strengths; all bridges targeted under this project were made to satisfy Indonesia's established bridge design load (20 tons), making it possible to operate large locomotives. The problem of having to establish sections with speed restrictions (20 km/h) in response to bridge deterioration was solved, thereby ensuring smooth railway operation and shortening the travel time between Jakarta and Surabaya by about 33 minutes. The problems of crossing accidents and waiting times at crossings were solved by eliminating grade crossings with the construction of underpasses. Further, the problem of stoppages of train operation due to floods was solved by taking flood-control measures, such as increasing the height of bridges by raising the ground level. These works are judged to have improved the safety and convenience of railway operation. In addition, many members of lower-income groups use economy-class trains to travel long distances, such as to visit their hometowns during Lebaran, the Indonesian end-of-fast festival. This project ensured that lower-income groups have a means of long distance transportation during Lebaran. Therefore, this project has largely achieved its objectives, and effectiveness is highly satisfactory.



Bridge before project (left). Bridge rehabilitated through this project and separately made to accommodate double tracking (right).

Relevance

Rating **a**

This project has been highly relevant with national policies both at the time of appraisal and at the time of ex-post evaluation.

Efficiency

Rating **b**

Although the project cost turned out to be less than planned (89% of planned amount), the project period turned out to be longer than planned (139% of planned period). Therefore the evaluation for efficiency is moderate.

Sustainability

Rating **a**

No major problem has been observed for capacity of the executing agency nor the the operation nor its maintenance system, therefore, sustainability of this project is high. While the condition of the bridges was extremely good, some problems for operation and maintenance were identified: bridges are susceptible to salt damage because the line runs along the coast; some nearby residents use the area around the bridges as toilets; and bridge bolts are sometimes stolen. Operation and maintenance will need to be suitably undertaken.

Conclusion, Lessons Learned, Recommendation

In light of the above, this project is evaluated very highly. Note that differences in the work methods for rehabilitating bridges and rebuilding bridges led to difficulties in implementing the project. In the future, it will be important for the executing agency to provide sufficient advance explanation and training concerning work procedures in order to prevent this kind of situation.

Third-Party Opinion

This project achieved the goals of expanding transport capacity and shortening the transit time along the Java North Line, the main trunk line between Jakarta and Surabaya, and also provided an important means of transportation for low-income groups.

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