



Pakistan

30 Diesel Electric Locomotives Rehabilitation Project (1) Diesel Electric Locomotives Production Project (2)

This project was to boost the capacity of railway transport which plays an important role in long-distance transport by carrying out the manufacture and rehabilitation of diesel electric locomotives, and thereby provide infrastructure for economic growth.

Loan Amount/Disbursed Amount: 6,011 million yen/5,673 million yen; 8,578 million yen/8,578 million yen
Loan Agreement: August 1993; March 1996

Terms and Conditions: Interest rate 2.6%/2.3%; Repayment period 30 years (grace period 10 years); General untied

Final Disbursement Date: November 1999; July 2002

Executing Agency: Ministry of Railways/Pakistan Railways



External Evaluator: Hajime Sonoda (IC Net Limited)

Field Survey: September 2004

Evaluation Result

In this project, a total of 54 locomotives were rehabilitated and 30 locomotives with 3,000-horsepower were manufactured almost as planned. The project period was substantially exceeded the plan due to a local currency shortage and delay in parts manufacturing, but the project cost rose slightly over the plan.

Immediately after the rehabilitated locomotives were put into service (1998), their rate of operation and operational efficiency significantly exceeded the average level of the Pakistan Railway. However, 2 years after the rehabilitation, some of the locomotives required parts replacements, and in 2003, they were operating at nearly average levels. The 30 newly manufactured locomotives perform the best of all the railway's diesel electric locomotives and are used for passenger transport. Overall, superannuation of the locomotives of the Pakistan Railway is advancing; however, the 84 locomotives rehabilitated and manufactured by this project constitute 16% of the locomotive fleet and are contributing to the maintenance of transportation capacity. These locomotives also bear 41% of the passenger transport load and 17% of the freight transport load, with approximately 30 million persons per year (approx. equivalent to

the Keihin Kyuko Haneda Line in Japan) using trains pulled by these locomotives.

There are no problems in the technical capacity of the Pakistan Railway, and with regard to the operation and maintenance system, reforms are progressing, including formation of a public corporation and consignment of operations to private companies. Financially, the Pakistan Railway is in deficit, but it is increasing income by raising fares and boosting the number of high-speed trains.

The lessons learned from this project are to set an appropriate scope for the project with sufficient consideration of future increases in operation and maintenance expenses.

Third-Party Evaluator's Opinion

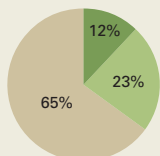
To utilize the advantage of railway transport, such as environmental aspect, over road transport and to further boost the effects of the project, it is necessary for the Pakistan Railways to conduct reforms with an emphasis on human resources development.

Third-Party Evaluator: Mr. Muhammad Khalid Jameel (mass communication)

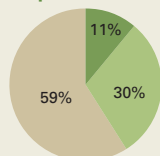
Obtained a master's degree in Urdu literature from Bhauddin Zikria University. Currently senior reporter, anchor, and producer for AAJ Television. Specializes in journalism.

Contribution of the Rehabilitated and Manufactured Locomotives for Railway Transport

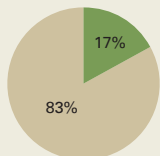
Locomotive Distance Traveled (km) (US-made locomotives only)



Passenger Transport Volume (persons-km)



Freight Transport Volume (tons-km)



■ 48 rehabilitated locomotives
■ 30 manufactured locomotives
■ Other locomotives



US-made locomotive in rehabilitation



Rawalpindi Central Repair Shop