

Pakistan

Track Circuits at 94 Mainline Stations Project



Track circuit introduced under this project

Outline of Loan Agreement

Loan Amount / Disbursed Amount	3,221 million yen / 3,167 million yen
Loan Agreement	March 1992
Terms & Conditions	Interest rate 2.6%p.a. Repayment period 30 years (Grace period 10 years)
Final Disbursement Date	December 1999

Project Outline

The project targeted stations on the Pakistan Railways line (Peshawar - Karachi) where obsolete signaling equipment posed a high risk, and covered the upgrading of signaling and safety equipment in order to ensure operational safety for trains.

Results and Evaluation

The project's objective was to secure operational safety for trains in the light of a major collision (238 fatalities, 326 injuries) that occurred in January 1990 at Sangi Station on the Karachi - Peshawar section. Work was implemented at 87 of the 94 stations included in original plans, excluding 7 stations that had already been closed, and included the installation of track circuits and the replacement of sleepers.

The system introduced under the project has made it possible to check which line a train is on from inside the station office and to send commands to signal boxes. It also improved the existing locking system between sleeper signals and switches, which is recognized to have significantly improved safety.

No accidents on the scale of 1990 have occurred since project completion, and staff at Pakistan Railways have also evaluated the work as having linked to improved reliability and safety on the railways.

Although there have been no specific problems with the operation and maintenance of the installed system to date, it is hoped that Pakistan Railways will ensure sufficient numbers of personnel and funds for maintenance during the process of improving its management