## 14. RAILWAYS INFRASTRUCTURE MAINTENANCE (CENTRAL ASIA)

Geographic Focus: Republic of Kazakhstan, Kyrghyz Republic, Republic of

Tajikistan, Turkmenistan, Republic of Uzbekistan

Project Budget: EURO 1,200,000
Contractor: DE-Consult

Implementation timetable: March 1996 through March 1997

## **Background**

The rail infrastructure has been decaying through lack of maintenance. Some elements are of a strategic economic importance and their underperformance can impose severe losses to regional economies. The general quality of service has to be improved to provide a level of service expected in a modern economy, and speed restrictions due to lack of maintenance need to be lifted.

# **Objectives**

There were three main objectives:

- Feasibility study for the upgrading of Aktau Bejneu rail line;
- Survey of infrastructure condition on the TRACECA main rail routes east of the Caspian Sea;
- Feasibility study for the development of a new crossing over the Amu Darya River, for road and rail traffic at Chardzhou.

## **Key Issues**

**Module A** concerns the rail link to the Port of Aktau, which is the main port serving the fast developing Kazakh oil fields. **Module B** was a preliminary appraisal of the state of the rail infrastructure along the TRACECA route in Asia. **Module C** concerns a new rail and road bridge over the Amu Darya River, which is of vital importance for the development of TRACECA. The bridge is over 2000 m long.

#### **Achievements**

In **Module A**, traffic forecasts were generated and an economic and technical feasibility study was carried out according to Western standards but based on governmental projections of freight. The inefficiency associated with the 18 km of rail connection between Aktau and Mangyshlak not being owned by Kazakhstan railways was highlighted. The project detailed the considerable investment that is required, under all scenarios, to keep the line operational into the next century. The results are being carried over for possible implementation in a future Kazakhstan railways restructuring project. In Module B operational, marketing and commercial issues were detailed including a breakdown of maintenance investment requirements and an estimate of the cost to modernise and rehabilitate the rail signalling and telecommunications equipment in the region. A study visit to EU countries demonstrated to participants the operations and commercial organisation needed and the performance expected by the customers of Western railways in international traffic. In Module C the traffic forecasts for future road and rail traffic were made, and the short-term measures needed to be taken to ensure the continued operation of the bridge, were identified. It established that the bridge should be replaced within 10 years. The existing road pontoon bridge is operating at full capacity, and is unsafe. The rail bridge is over 100 years old, and its useful life cannot be economically continued by intensive maintenance. The main recommendation is that there should be a combined road and rail bridge on the site of the pontoon bridge and that toll charges should be levied for the new bridge to cover the operating costs. Given the seriousness of the consequences of neglecting the recommendations of this project, and the high cost (probably exceeding EURO 80 million) it is planned to launch a small financial engineering project to identify potential future investors. International financial institutions have indicated preliminary interest.