# 9. IMPLEMENTATION OF PAVEMENT MANAGEMENT SYSTEMS (PMS)

Geographic Focus: Republic of Armenia, Azerbaijan Republic, Georgia, Republic

of Kazakhstan, Kyrghyz Republic, Republic of Tajikistan,

Turkmenistan, Republic of Uzbekistan

Project Budget: EURO 2,000,000

Contractor: KOCKS CONSULT GmbH

**Implementation timetable:** December 1995 through December 1997

# **Background**

Limited funds are available for road maintenance in each of the participating states and it is important that they are directed towards works, which yield maximum benefit.

### **Objectives**

- To introduce Regional road maintenance authorities to the latest EU pavement management techniques.
- To promote a reduction in road maintenance backlogs, which have arisen during recent years by an examination of the problems of financing maintenance activities.
- To re-invigorate the activities of the regional road maintenance authorities and technical institutions and to contribute to their long term survival.
- To train local specialists in the techniques employed, this being a prime objective of the project.

# **Key Issues**

The project contains a strong economic and financial analysis component which is most important, as the Participating States have never used rigorous economic principles to study the links between appropriate national expenditure and roads maintenance.

IFI require the implementation of PMS to accompany any investment by them in roads infrastructure, as sometime in the future the Participating States will have to fund the sector entirely from their own resources. This project provides a tools to enable them to plan this.

#### **Achievements**

The project provided the hardware, software and training to implement modern EU systems for road pavement and bridge maintenance management decision support.

It was implemented at a moment when IFI interest in the financing of roads infrastructure was nascent. Several synergies with investment projects were developed in extensions and the expertise mobilised by the project was extremely timely. The negotiations and disbursement of IFI loans based on the project activities are proceeding well.

The technology transfer involved in the project is complex, as it depends on notions of transport economics and planning, as well as computer skills, which are rare in the Participating States, but the pavement and bridge management computer systems have been established and are being further developed to adjust for the local operating conditions and training requirements.

The project extension provided for assistance to the Armenian Dept. of Highways to privatise roads maintenance contracts in conjunction with a World Bank loan to the roads sector and for the preparation of feasibility studies on road sections in Georgia to increase the resources of a present World Bank emergency support package to the transport sector.

The programme to prepare detailed design and contract documents for an EBRD loan to rehabilitate the Ashgabat-Mary road in Turkmenistan and additional training and equipment for the PMS is almost complete.