## Roads and Road Transport

9.53 India has more than 3 million km of road network, making it one of the largest in the world. However, the quality of the roads is inadequate and cannot meet the needs of efficient and fast moving transportation. National Highways which are the prime arterial routes span about 58,112 km throughout the country and cater to about 45 per cent of the total road transport demand.

9.54 The Golden Quadrilateral Project is making progress, 1020 km have already been four laned and 3761 kms are under implementation.

The award of civil works is in progress in 1170 kms. Similarly, on the North-South and East-West corridors, 675 kms length have already been 4-laned and 739 kms length is under implementation, whereas award of works is in progress in 62 kms.

9.55 The Central Road Fund has been revamped by crediting a cess of Rs.1 per litre of petrol and diesel. To give statutory effect, a Central Road Fund Act, 2000 has been enacted in December 2000. An amount of Rs.5590 crore was allocated during 2000-01 under the revamped fund.

## **BOX 9.8**

## National Highway Development Project

National Highways Development Project (NHDP), was launched three years ago, is promising to achieve a turnaround in the road sector hardly imaginable at the start of the ninth plan. NHDP comprises the 6000 km. long Golden Quadrilateral (GQ) connecting the four metros of Delhi, Mumbai, Chennai and Kolkata and the 7000 km. long North-South, East-West corridors connecting Srinagar – Kanyakumari and Silchar-Porbandar respectively. 4/6 laning works on all but 700 km. of GQ have been awarded. GQ is expected to be completed by 2003 and the two corridors by 2007

At present, National Highway Authority Of India (NHAI) is operating 135 civil works related contracts. Out of these, 87 are with domestic contractors, 11 with foreign contractors and 37 are with joint ventures between India and foreign companies. The total value of these contracts is approximately Rs.20,000 crore. As a result of this, the economic stimulus being provided by NHDP is substantial. NHAI's project related expenditure has picked up dramatically during the recent years. From Rs.30 crore in 1996-97, NHAI spent Rs.1,405 crore in 2000-01 and has already spent Rs.2,439 crore by November 30, 2001 during the current financial year. NHAI expects to spend Rs.10,000 crore each year during the next two years. 200 million man days (including 20 million man days of supervisory personnel) of employment is expected to be generated as a result of NHDP phase I alone. In addition, NHDP Phase I would require 10 million tonnes of cement and 1 million tonne of steel, apart from a large quantity of road related domestically manufactured equipment.

Extra budgetary infusion of funds is expected to be in the range of Rs.4000-5000 crore. BOT projects worth Rs.3,000 crore are on the anvil. Some of the big BOT projects are Tada-Nellore (Rs.760 crore), Second Vivekananda Bridge (Rs.600 crore), and Jaipur-Kishangarh (Rs.600 crore). In addition, NHAI has set up its own Special Purpose Vehicles (SPVs) to commercialize and leverage the financial structure to the extent possible. In these projects like port connectivity projects, Ahmedabad-Vadodra Expressway and Moradabad bypass, NHAI is putting in equity, which is 30-40 per cent of project cost. The balance is raised from the market to be repaid through tolls. The leveraging being achieved by NHAI on account of these SPVs is going to be around Rs.2000 crore approximately. NHAI has also used the annuity method in six projects (Rajahmundry-Dharamvaram, Dharamvaram-Tuni, Tuni-Ankapalli, Tambaram-Tindivanam, Panagarh-Palsit and Maharashtra border-Belgaum). Here, construction and maintenance are combined under a single contract and bids are invited on the basis of annuity or periodic payments by NHAI to the concessionaire. Funds for construction are to be arranged by the concessionaire and all NHAI payouts (due only after construction) will be made upon road quality certification by an independent consultant. NHAI has also been able to arrange Rs.8000 crore (US \$ 1.6 billion) from the World Bank & the ADB for NHDP Phase I.

The value addition being done under the program includes 4/6 laning, over a 100 Road Over bridges (RoBs), and other types of grade separators like flyovers, service roads, Highway Traffic Management System (HTMS) etc. HTMS, already implemented on Kotputli-Amer stretch includes regular patrolling, availability of ambulances/cranes, gantry mounted variable messaging, emergency call boxes at every 2 km, central control room for quick response etc.

9.56 To encourage private sector participation, a Model Concession Agreement for major projects costing more than Rs.100 crore has been finalized to be undertaken under BOT Scheme. Another Model Concession Agreement for projects less than Rs.100 crore has also been finalized. A Model Concession Agreement based on an annuity approach has also been finalized. To date, 20 projects involving an investment of around

Rs.1707 crore have already been taken under BOT Scheme. This includes an agreement between NHAI and Construction Industry Development Board (CIDB) Inventure, Malaysia signed in May, 2001 for four-laning of NHs 5&9 (147 km) for Rs.740 crore. In addition 6 projects of 4-laning costing Rs.1760 crore have also been awarded by NHAI on Annuity concept.