

# Infrastructure

## Introduction

The infrastructure sector covers the services of transportation (railways, roads and road transportation, ports, and civil aviation), communications (telecommunications and postal services), electricity and other services

such as water supply and sanitation, solid waste management, and urban transport. The lack of adequate infrastructure has been not only constraining the growth performance of the economy, but has also induced significant costs in terms of welfare loss (for example,

**Table 9.1 : Trends in growth rates of infrastructure sectors (in per cent)**

Items	Unit	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*
<b>I. Energy</b>							
1 Coal Production	Mn.tonnes	-2.1	3.1	3.5	4.2	4.6	5.1
2 Electricity generated (Utilities only)	Bn. Kwh	6.6	7.2	3.9	3.1	3.6	4.5
(a) Hydel	„	11.1	-2.5	-7.6	-0.7	-13.8	15.6
(b) Thermal (incl.nuclear)	„	5.7	9.3	6.3	2.5	6.5	3.0
3 Petroleum							
(a) Crude oil production	Mn.tonnes	-3.4	-2.4	1.5	-1.2	3.2	1.0
(b) Refinery throughput	„	5.2	25.4	20.3	3.7	4.9	8.2
<b>II. Steel</b>	Mn.tonnes	1.4	15.0	6.4	3.6	10.1	6.9
<b>III. Cement</b>	Mn.tonnes	5.7	14.2	-0.9	7.4	8.8	6.1
<b>Weighted Average growth I to III</b>		<b>2.8</b>	<b>9.1</b>	<b>5.1</b>	<b>3.5</b>	<b>5.6</b>	<b>5.4</b>
<b>IV. Transport and communications</b>							
1. Railway revenue-earning	„						
Goods traffic		-2.0	8.4	3.7	4.0	5.3	7.5
2. Cargo handled at major ports	„	0.0	8.0	3.4	2.3	9.0	9.9
3. Telecommunications- new telephone connections Provided (Direct Exchange Lines)**	'000Nos.	16.4	29.7	27.2	23.9	21.5	40.0
4 Civil Aviation							
a. Export cargo handled	000 tonnes	-4.4	10.8	5.1	4.1	13.3	1.0
b. Import cargo handled	„	-2.4	16.2	3.6	-1.0	18.6	13.8
c. Passengers handled at International Terminals	Million	0.0	0.0	4.6	-5.0	4.8	6.5
d. Passengers handled at Domestic Terminals	„	0.3	7.4	7.7	-5.7	9.6	13.1
* Provisional.		**WLL, Fixed and Cellular					
Source : Item no. I to III Ministry of Commerce & Industry, IV.1 Ministry of Railways, IV.2 Ministry of Shipping, IV.3 Ministry of Communication and IV.4 Ministry of Statistics & Programme Implementation.							

morbidity and water-borne disease). It is widely recognized that a simple reliance on competitive markets is unlikely to produce efficient outcomes in infrastructure, a sector with pronounced 'public goods' characteristics of "non-rivalness" and "non-excludability". In the last decade, however, there has been a significant evolution of the nature of State-intervention in this sector. Government has significantly shifted away from the direct production of public goods to also focusing on the regulatory and policy framework and private-public partnership to generate adequate provision of these public goods.

9.2 In line with this evolving policy direction, Budget 2003-04 undertook to provide a major thrust to infrastructure, principally to roads, railways, airports, and seaports, through innovative funding mechanisms. The initiative covered: 48 new road projects at an estimated cost of around Rs.40,000 crore; with a quarter of them being made of cement concrete; National Rail Vikas Yojana projects worth Rs. 8,000 crore; renovation/modernization of two airports, and two seaports at an estimated cost of Rs. 11,000 crore; and establishing two global standard international convention centres at an estimated cost of Rs. 1,000 crore. The total cost of the above projects was estimated at about Rs. 60,000 crore. In addition, the Budget also announced the funding of the North-South and East-West corridors through an additional levy of a cess of 50 paise per litre of diesel and motor spirit. This levy was expected to contribute a further Rs. 2,600 crore for highway development. The essence of the new funding mechanisms announced in Budget 2003-04 was to leverage public money through private sector partnership, wherever possible. The three critical components of the scheme are: release of public funds only when linked to specific and well-defined milestones in completion of the project, in physical terms; a sharing of the risks with the private promoters and financiers; but no open-ended Government guarantees at any stage. This important Budget announcement, along with some major initiatives in 2003-04 and April-May 2004 in infrastructure adequately reflected this change in the nature of State intervention (Box 9.1).

9.3 In 2003-04, the infrastructure sector experienced mixed outcomes (Table 9.1). The growth rate in some key sectors showed acceleration from the previous year. In

### Box 9.1 : Major Initiatives for Infrastructure Development, 2003-04

#### Power

- Electricity Act notified in June 2003
- 28 States signed the tripartite agreement for one-time settlement of the dues of State Electricity Boards (SEBs) to Central Public Sector Undertakings (CPSUs), and, after securitizing the dues, 27 states issued bonds amounting to Rs. 28,983.85 crore, August 2003 onwards.
- 50,000 MW hydro electric initiative launched in May, 2003.

#### Telecom

- Unified Access Service License regime introduced in October 2003.
- Telecommunication Interconnection Usage Charges (IUC) Regulation, notified on October 29, 2003.
- Universal Service Obligation Fund set up as a separate non-lapsable fund in January 2004.

#### Roads

- Pradhan Mantri Bharat Jodo Project for development of 10,000 kms of roads connecting state capitals with National Highways launched in January 2004.

#### Railways

- Rail Vikas Nigam set up in January 2003.

particular, strong growth rates have been observed for electricity, railways, ports and new telephone connections.

1. Hydel generation showed a sharp turnaround, reflecting the good monsoon, from a 13.8 per cent decline in 2002-03 to a 15.6 per cent increase in 2003-04. At the same time, thermal and nuclear generation growth slowed, from 6.5 per cent in 2002-03 to 3 per cent in 2003-04.

2. The goods traffic carried by the railways showed a strong acceleration from 5.3 per cent growth in 2002-03 to 7.5 per cent growth in 2003-04. The cargo handled at major ports also grew by 9.9 per cent in 2003-04, as compared with 9 per cent in 2002-03.

3. The telecom sector continued to progress by maintaining the high growth rates observed since 2000 onwards.

4. In the area of civil aviation, domestic passenger traffic grew sharply by 13.1 per cent in 2003-04, as compared with a 9.6 per cent growth in the previous year.