

DEVELOPMENTS AND OPPORTUNITIES IN INFRASTRUCTURE - INDIAN SCENARIO

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Synopsis

India has fast emerged as a land of opportunities in Infrastructure sector. The potential is enormous as many sectors are opening up for participation and private investment. In the last few years a number of Road Projects have been taken up under ambitious National Highway Development Programme costing about US\$ 12 billion, in which large number of foreign construction companies are participating. The telecom sector has moved forward at a brisk pace and power reforms have gained momentum while the disinvestments process has got underway in the Telecom and Oil and Gas sector. In order to have an integrated development of Transport system, National Rail Development Programme has also been launched in Dec. 2002 envisaging an investment of about US\$3.5 billion.

This paper presents an overview, opportunities of investment and regulatory initiatives in various infrastructure sectors in India with special emphasis on Transport sector.

1. INDIA – THE EMERGING ECONOMY

India, the second most populated country of more than 1000 million has emerged as one of the fastest growing economies. It is a republic with a federal structure and well-developed independent judiciary with political consensus in reforms and stable democratic environment. GDP at current prices stood at US \$ 479.40 billion and present growth rate is 5.4 percent (2001-02) with a low inflation rate of 1.9%. India is the 4th largest economy in terms of Purchasing Power Parity (PPP). It has a rapidly growing consumer market of more than 300 million people and has developed as one of the largest cost-competitive technical workforce

nations with large pool of skilled manpower and Professional management including engineers, lawyers, managerial personnel, accountants etc. India was identified by 82 percent of US companies as their top destination for software outsourcing and there is a promising future in the burgeoning information technology industry. In the recent years India has also adopted conducive foreign investment policies and well-balanced package of fiscal incentives with free repatriation of profits and capital investment.

While the Government has so far been the predominant provider of infrastructure facilities, social obligations of governance have led to increasing pressures on finances of the service providers resulting in inadequate availability of resources for improvement of existing systems and additions of capacity. The immediate requirement of funds for development of new facilities and improvement of existing ones has been estimated at US\$ 500 billion in various sectors. Requirement of funds during 2005-06 for Power, Roads and Port sectors is expected to be US\$ 12.2, 2.7 and 0.7 billion respectively.

The Government has been putting in place legal and policy structures in vital sectors of telecom, roads, oil & gas and ports to foster private participation. Fiscal incentives are being provided for projects in these sectors and private participation is being sought for bringing in technology, management and financial resources in setting up new capacities and improvement of existing ones. Government has also been participating in the development of private projects as partner cum facilitator.

2. FUTURE OUTLOOK

Within sectors, the pace of reforms has varied significantly, due to select commercial and regulatory issues. Consequently, progress and opportunities across sectors differ both in quantitative terms as in terms of attractiveness. However, the Government has stepped in with all serious intent and over the last two years has resolved some of the issues in the areas of telecom and the road

sector. This is expected to position these sectors for higher levels of foreign direct investment in the coming years. Reforms in other sectors are now likely to be taken up at an accelerated pace.

There are varied options for the foreign companies to enter in for participation. They may operate through Liaison offices, Project offices or Branch offices. It can also operate as an Indian Company through a Joint venture route or as a wholly owned subsidiary. Foreign companies are also allowed to have Investment in Export Processing Zones/ 100 percent Export Oriented Units and in Special Economic Zones.

3. ALL ROUND DEVELOPMENT

A brief update on each of the sectors is presented in the subsequent sections.

3.1 Roads

3.1.1 Vast Network

India has 3 million km of roads out of which 58000 km comprises of National Highways. Road network carries 85% of total passenger traffic and 70% of total Freight traffic, with 40% of the total traffic carried by National Highways. National Highway Authority of India (NHAI) started functioning in 1995. NHAI is now implementing US\$12 billion National Highway Development Project (NHDP)

Estimated Investment requirement till 2005-06 is as under:

	Demand	USD Bn*
National Highways	23,000 km	7.8
State Highways	60,000 km	4.7

•Private participation to the extent of USD 6.8* billion

For Road Maintenance it self the requirement of investment shall be to the tune of US\$ 1.4 Billion for National Highways and US\$ 1.6 Billion for State Highways during next 5 years. This work is proposed to be fully privatized.

Government has taken major policy initiatives for the Road sector and will carry out land acquisition and utility removal and Right of Way (ROW) shall be made available free from all encumbrances. NHAI / GOI may provide capital grant up to 40% of project cost to enhance viability on a case-to-case basis. 100% tax exemption for 5 years and 30% relief for next 5 years have been stipulated. Concession period has been allowed up to 30 years while foreign direct investment is permitted up to 100% for construction of roads and bridges. NHAI has also been permitted to participate in equity in BOT projects upto 30%. Import of modern high capacity equipment for highway construction can now be done almost free of Customs Duty.

Private participation in the Roads may be through BOT route, the annuity method or SPV route. In the BOT route the roads are built, operated and the stretch transferred after the concession period. Concessionaire has the right to recover costs and make profit through collection of tolls. The annuity method is the variant of BOT where concessionaire is assured a fixed annual payment. The private operator builds the road; the Government collects the toll and pays them a regular amount for the next 15 years. The SPV route involves setting up of a joint venture company between two or more promoters to execute the project. Participation by the state government is generally substantial in the SPV. It is seen that high-density stretches that assure good returns are normally awarded under BOT. SPV and Annuity routes are adopted for projects that have higher traffic risks.

3.1.2 Investment Opportunities

Investment opportunities in the Road sector exists for both National highway, State Highway and other roads. Estimated investment up to 2010 is shown in the table below:

	<i>Length (km)</i>	<i>Cost (US\$ Billion)</i>
Central Sector		
Golden Quadrilateral, North South and East west Corridor, Port Connectivity	14162	11.57
Widening , Expressway , Bypasses and Bridges		12.70
		<u>24.27</u>
State Sector		
Widening of Single lane to two lanes	1,05,000	21.70
Two lane to four lane	4,000	3.30
Other Roads		<u>6.20</u>
		31.20
CENTRAL + STATE SECTOR		US\$ 55.47 Billion

The average size of the contract for the work is US\$ 75 million. Of the works already taken up, Indian firms have secured 95 packages out of the total 146 contract packages while Foreign Firms have secured 51 packages on their own or as JV with Indian firms. Opportunities also exist for the Consulting firms in the areas of Project preparation, Design Engineering and Construction supervision. Company or intending investor may associate in BOT Projects or by Participation in Bonds & Direct borrowings. There is considerable scope for the Equipment manufacturers to sell or Lease the construction equipment. Construction companies can form JV with Indian Companies and transfer New Technology & Methods for overall cost competitiveness.

3.2 Ports

There are 11 major ports managed by the Port Trust of India and 148 minor operable ports under the State Governments. The major ports handle a little over 80 per cent of the all-India port throughput. During 1999-2000, the total cargo handled at major ports was 271.92 million tonnes.

Private joint ventures partners are being inducted to improve the operating efficiency of the ports. Rational management and working practices can increase the capacity of ports by 35% and containerized capacity by 40% without major investment. It is estimated that during the next decade the growth of traffic may be about 6% while the containerised traffic growth is estimated to be of 18%. Private participation is possible in construction and O&M of jetties, cargo handling facilities, container terminals and storage tanks. Setting up export processing zones to increase exports is expected to generate substantial business for ports.

Regulatory Initiatives by the Government include the policies laid down for private participation. Policies provide for joint ventures between the existing Indian ports and private companies to improve efficiency of operations. There is a shift towards privatisation of minor ports and operation of relatively new major ports. Concession mechanisms have been developed by some State Governments (Gujarat, AP, Orissa) and agreements have been signed for the development of minor ports. Tariff Authority for Major Ports (TAMP) has been constituted as the apex body till the movement to market determined port tariffs

Measures to promote foreign investment include foreign equity upto 100% in construction and maintenance of ports and harbours and in projects providing support services to water transport, such as operation and maintenance of piers, loading and discharging of vehicles under the automatic route. Open tenders will be invited for private sector participation on a BOT basis.

3.3 Railways

Indian Railways is the largest rail network in Asia and world's second largest under one management. Indian Railways comprise over one hundred thousand track kilometers and run about 11000 trains every day carrying about 13 million passengers and 1.25 million tonnes of freight every day. Indian railways have been losing its market share and competitiveness vis-a-vis roads. Despite being reliable, safe, eco friendly and economical mode of transport, its share in both freight and passenger traffic has come down significantly over the years.

The scope for public private partnership is enormous in railways, ranging from commercial exploitation of rail space to private investments in railway infrastructure and rolling stocks.

In order to have an integrated development of Transport system, National Rail Development Programme has also been launched in Dec. 2002 envisaging an investment of about US\$3.5 billion in next 5 years. The programme envisages removal of capacity bottlenecks in the critical sections of railway network. The Golden quadrilateral is proposed to be strengthened to enable running of more long distance passenger trains and freight trains at a higher speed. Programme also envisages strengthening of rail connectivity to ports and development of multimodal corridors to hinterland. Construction of 4 mega bridges costing about US\$ 750 million is also included in the programme.

Construction of a new Railway Line to Kashmir valley in most difficult terrain at a cost of US\$ 1.5 Billion and expansion of rail network in Mumbai area at a cost of US\$900 million has also been taken up.

3.4 Civil Aviation

The Airport Authority of India (AAI) manages total 120 Airports in the country which include 5 International Airport, 87 domestic airports and 28 civil enclaves. Top 5 airports in the country handle 70% of the passenger traffic out of which Delhi and Mumbai together alone accounts for 50% traffic. Passenger and cargo traffic has grown at an average of about 9% over the last 10 years. It is estimated that the domestic passenger segment is likely to grow at 12% per annum. Anticipated growth for International passenger segment is 7% while the growth for International Cargo is likely to at a healthy rate of 12% .

Privatisation of International Airports is in offering through Joint Venture route. Three greenfield airports are being built at Kochi, Hyderabad and Bangalore with major shareholding of private sector. The work on Bangalore airport is likely to commence shortly. Few selected non-metro airports are likely to be privatised. 100% foreign equity has also been allowed in construction and maintenance of airports with selective approval from Foreign Investment Promotion Board.

3.5 Telecom

Telecom services had traditionally been provided by the Public Sector. Penetration of telecom has been slow in India as compared to China which has comparable population and development path .

	India*	China**
No. of phones (MN)	26	104
Tele-density (per 100)	2.6	9.5
Cell phones (MN)	3.5	30

* As on Mach 31, 2001

** As on December 31, 1998

The Expert Group had pegged the demand estimates for basic telephony at 46.3 million by 2005 while other estimates range at 65-80 million lines. There has

been an upsurge in demand for basic telephones, cellular telephones, cable TV and Internet services in the country.

Reforms in the telecom sector have taken place at a very fast pace. Service provider and policy cum supervisory roles of the Department of Telecommunication have been unbundled with the setting up of Telecom Undertakings. Rationalisation of tariff structures has reduced cross-subsidization between long distance and local telephone calls. Foreign investment up to 49% has been allowed. Entry of new players is based on payment of one time license fee and subsequent revenue sharing. 100% foreign equity is proposed to be permitted in B2B e-commerce ventures

3.6 Oil & Gas

With the exponential increase in the population of vehicles and industrial requirement, the consumption of petro products is likely to increase to 155 MMT by the year 2005-06. India has established geological reserves of 5.4 billion and exploration acreages are available on offer on continuous basis. It is estimated that investment over the next 10-15 years shall be in the range of US\$ 100-150 billion. Additional refining capacity of 110 million tonnes shall be required by 2010. Opportunities have emerged in business areas linked to Natural Gas. Private opportunities also exist in infrastructure like jetties, storage tanks, movement of oil and petro-products.

Oil import constitute largest share of total import and therefore Government has taken many initiatives to mitigate the situation and attract the foreign investors. 100% foreign investment has been allowed in this sector. Deregulation and de-licensing has been done for the petroleum products. Rationalization of pricing has taken place by decontrol and import parity . Private sector can import most products, pipelines, terminals and tankages cleared for private investment. JV can be formed for the development of infrastructure, marketing and, refining activities.

3.7 Urban Infrastructure

Rapid Industrialization has put increasing pressure on urban areas. There is dramatic increase in urban population which has resulted in serious infrastructure constraints. Private sector participation is envisaged for operations and management of water and wastewater networks. Demand in housing sector has been fuelled by availability of cheaper housing finance, Tax incentives and Lower prices. The investment requirement for housing in urban areas has been estimated at US\$ 12.5 billion in the IX plan.

Requirement of Urban Transport has increased substantially by growing urban Population. Estimated population of India is likely to be 1451 million in 2021 out of which urban population shall constitute 37%, as against 27% during 2001. Numbers of cities having population more than 1 million are expected to increase to 53 by the year 2021 from present number of 35. Urban Transport demand has been growing even faster. There is inadequate Urban Mass Transport System and proliferation of personalised motor vehicles. Numbers of personalized vehicles are likely to increase by eight fold in next 20 years. This will result in excess energy consumption, congestion in cities and environmental problem, thus necessitating LRT /MRTS options.

3.7.1 Present Status - MRTS / LRTS

The most ambitious MRTS network plan is envisaged for the national capital at Delhi. The Delhi Metro Railway is a major initiative, which is now under implementation. Works for Phase-I of the network are under advance stage of completion, and one section has been commissioned. DPR for Phase-II MRTS network is under preparation. Total length of MRTS for National Capital Region upto phase IV shall be 244 km consisting of 27 km of underground section, 204 km of elevated section and 13 km at grade.

In Kolkata one corridor of MRTS has already been in operation. Extension of this is in progress. Master Plan of MRTS for Mumbai is under preparation although an extensive commuter Rail System already exists. In Chennai Commuter Rail System is already available and a small section of MRTS is also in operation. Feasibility study of commuter Rail system and DPR for MRTS is under preparation for Bangalore and Hyderabad. Feasibility study for LRT has also been done for Jaipur, Lucknow, Kanpur, Agra, Ludhiana and Cochin.

These projects provide considerable opportunity for innovation in terms of financing, planning and execution of the projects.

4.0 CONCLUSION

India, as one of the fastest growing economies, has recognized the need for all round development in the important infrastructure sectors. With political consensus in reforms having been established and with a stable democratic environment, clear policies and regulatory frameworks are being put in place. The country having established policies conducive for foreign investment, has gradually opened up as a preferred destination for infrastructure financing. There are tremendous opportunities in most of the sectors and with innovative options of participation there is quantum leap in participation of foreign companies who are being welcomed both in Centre and State projects.