ANALYSIS

To sustain the smiley curve

Land acquisition, environmental concerns, financing structures and approvals and government procedures need to be more effectively dealt with for speedy infrastructure development. **Sunil Tandon** analyses what to look forward to in the year to come.

India's visionary plan to invest $500 billion in physical infrastructure during the 11th Plan (2007-2012) could go haywire due to significant slippages in investments from what was envisaged in the 11th Plan. The planned investment in the ports sector was Rs 88,000 crore, of which Rs 44,600 crore should have been invested by 2009-10. However, there exists a shortfall of 61 per cent in actual investments. Likewise, in the power sector, where Rs 666,525 crore was the planned investment, there is a shortfall of 12 per cent in actual investments.

FIGURE 1: PLANNED INVESTMENTS VS ACTUAL INVESTMENT SHORTFALL IN THE 1ST THREE YEARS

PORTS AND MARITIME

Cargo traffic at Indian ports has witnessed a compounded annual growth rate of 10 per cent from 579 million tonne (mn t) in 2005-06 to 846 mn t in 2009-10. The Planning Commission predicts that, driven by a strong GDP growth and growth in trade activities, cargo traffic at major ports shall reach the 877 mn t mark by 2011-12. A conducive regulatory environment exists with policies, such as, up to 100 per cent FDI under automatic route, 100 per cent income tax exemption for 10 years. The National Maritime Development Programme (NMDP) for expansion of port capacities and project Sethusamundram (dredging of the Palk Strait in southern India to facilitate maritime trade) are the two projects undertaken for the development of ports and maritime infrastructure.

Indian major ports are already operating at more than 90 per cent capacity utilisation levels. In response, in 2005, Ministry of Shipping, Road Transport and Highways announced Rs 100,338 crore NMDP comprising 387 maritime infrastructure projects. The development plan included Rs 55,803 crore of investment in 276 projects for port development by 2012 and Rs 44,535 crore of expenditure in 111 projects focused on shipping development, to be completed by 2015—tonnage acquisition, inland waterways, coastal shipping and shipbuilding. The Port Development Plan envisaged increase in capacity of major ports from 574.7 mn t to 1 bn t by 2012, of which a meagre 55.8 mn t has been added, courtesy only 50 completed projects out of 276 projects. Work is progressing on 74 projects, 16 projects stand approved, 29 are under approval stage, 82 are under planning stage and 25 projects are cancelled.

> The key issue to be addressed shall be the creation of successful PPP partnerships to accelerate port development.

The maximum port projects relate to berth/jetty construction, amounting to Rs 28,083 crore. 86 per cent is expected to come from the private sector. Minor ports which fall under the respective state list offer an advantage to the natural hinterland they serve, vis-à-vis being served by the closest major port. An investment of Rs 20,250 crore for improving minor ports had been estimated. State Governments are awarding projects to private operators

FIGURE 2: MAJOR PORT INVESTMENT AREAS AND FUNDING PATTERN (RS CRORE)

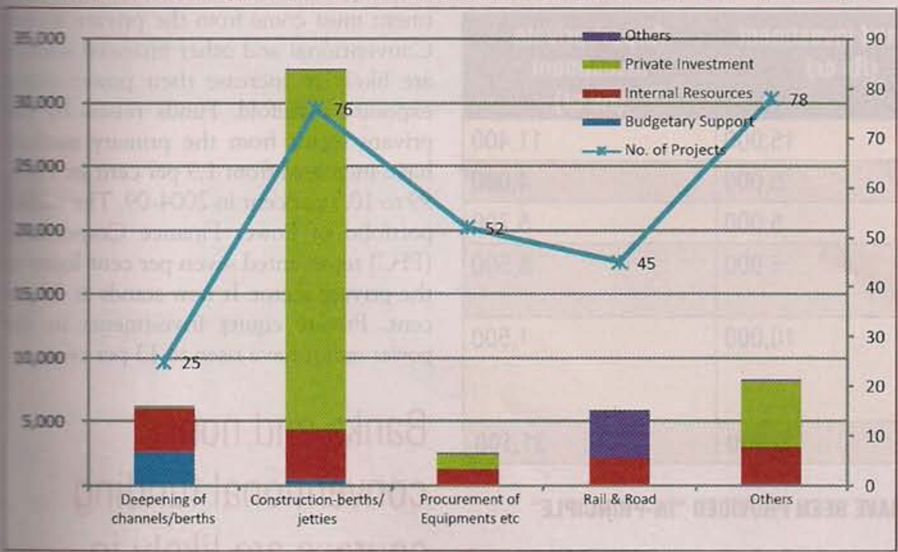
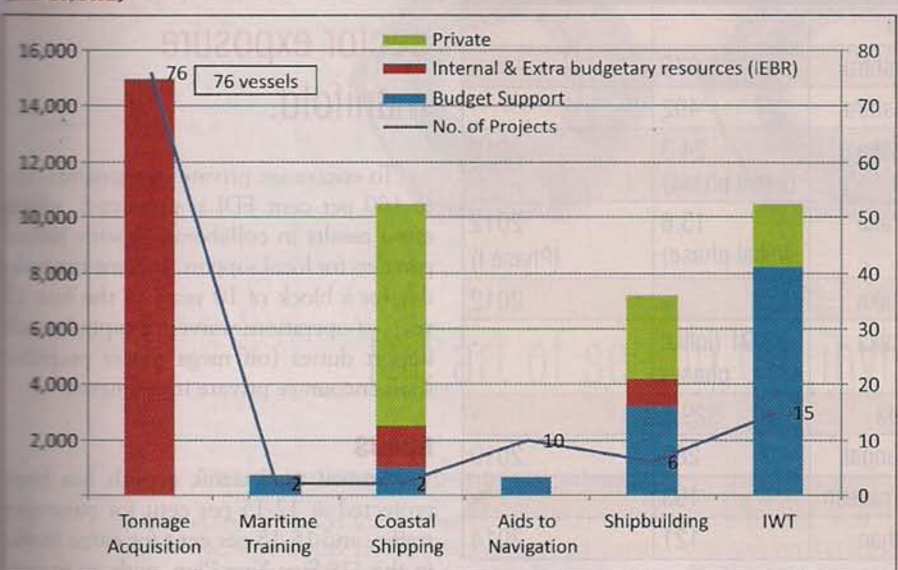


FIGURE 3: MARITIME INFRASTRUCTURE INVESTMENT AND FUNDING PATTERN (RS CRORE)



on BOT, BOOT and BOOST models by way of tenders and approving proposals from private developers. Some upcoming greenfield projects include Subarnarekha (Creative Port Development), Dighi (Balaji Infrastructure), Gopalpur (OSL & Sara International and Rewas (Reliance).

34 per cent of the funds (~Rs 15,000 crore) have been planned to be invested for procurement of 76 vessels. These shall be funded by internal and external budgetary resources. Close to 24 per cent of the funds (Rs 10,500 crore) have been planned to develop coastal shipping, of which 76 per cent is from the private sector.

The sluggish progress of NMDP has caused a loss of trade worth Rs 1,400 crore, according to the country's top auditor CAG. A new plan is envisaged, which shall have a deadline until 2020. The key shall be the creation of successful PPP to accelerate port development.

AIRPORTS

International air passenger traffic has grown from 25.8 million in 2006-07 to 34.36 million in 2009-10 at CAGR of over nine per cent. The total cargo traffic has grown at a CAGR of 7.2 per cent and total aircraft movement has grown at a CAGR of 6.5 per cent over the same period. In Aug 2010, Boeing and Airbus forecast India's commercial jets requirement over the next 20 years, as exceeding 1,100 and costing ~$130 billion. The Centre of Asia Pacific Aviation expects domestic traffic to grow at 15 per cent till FY 11 and international traffic at 10-12 per cent.

The ambitious Rs 40,000 crore Airport Development Plan announced in 2005 for greenfield and brownfield projects involved ~Rs 31,400 crore from PPP. The airside and terminal building development of greenfield airports shall be done by AAI while investments for commercial development of land of non metro airports shall be from the private sector. The actual expenditure overall in Delhi and Mumbai Airport has been ~Rs 5,216 crore and the actual spend in Bangalore and Hyderabad Airports has been ~Rs 104 crore. For quite a few projects, the Government has granted an in-principle approval, but the award of contract is remaining. For instance, Goa Airport is marred by land acquisition issues and the proposal is at inter-ministerial consultation stage. Navi Mumbai Airport and Greater Noida Airport plans were stalled due to regulatory issues, which don't allow a second airport in a 150 km radius of an existing airport. While the former has been cleared, other projects as mentioned in Table 1 involve consultant studies, land acquisition issues, RFP/RFQ processes, or contract finalisation formalities.

While Mangalore, Madurai and Coimbatore airports projects have been commissioned, others such as Lucknow and Varanasi are nearing commissioning. A 10 year tax holiday offered to new infrastructure projects, which typically refers to greenfield projects, is availed by developers involved in brownfield projects. The benefits thus doled out for brownfield projects get compensated to a certain extent by the competitive bidding process, wherein, the private parties compete on price. With respect to a long-term view on aviation policies, there existed need for an independent regulator to ensure a rapid development of airports across the country, a

AIRPORT DEVELOPMENT PLAN (2007-2011)

Airport	Planned investment (Rs cr)	Airport private investment (Rs cr)
Delhi and Mumbai	15,000	11,400
Bangalore and Hyderabad	5,000	4,000
Chennai and Kolkata	5,000	5,700
Other greenfield airports (Goa, Pune, Navi Mumbai, Nagpur & Grtr Noida)	5,000	8,500
City side development; Modernisation and upgradation of other airports and air traffic services	10,000	1,500
Total	**40,000**	**31,100**

TABLE 1: GOVT SPONSORED PROJECTS, WHICH HAVE BEEN PROVIDED "IN-PRINCIPLE" APPROVAL

Name of the project	Location	Project cost (Rs cr)	Scheduled date of completion
Mopa Airport	Goa	-	-
Navi Mumbai International Airport	Maharashtra	9,970	-
Sindhudurg Airport	Maharashtra	492	-
Bijapur Airport	Karnataka	24.3 (initial phase)	2012
Gulbarga Airport	Karnataka	13.8 (initial phase)	2012 (Phase I)
Hassan Airport	Karnataka	-	2012
Simoga Airport	Karnataka	38.91 (initial phase)	-
Kannur International Airport	Kerala	929.5	-
Durgapur International Airport	West Bengal	280	2010
Dabra Airport	Madhya Pradesh	193	-
Paladi Ramsinghpur Airport	Rajasthan	121	2014

role envisaged for Airports Economic Regulatory Authority (AERA). The Viability Gap Funding (VGF) provision to fund infrastructure projects upto 20 per cent of the project cost will help investments in non metro airports become viable.

POWER GENERATION

The average energy deficits during FY 2004-10 stood at a little above nine per cent; and the average peak power deficits during FY 2002-09 stood at 12.9 per cent. While the statistics indicate a demand deficit, there exists no dearth of opportunities. India has historically failed to meet power targets by significant margins.

Out of a total capacity addition of 78,530 MW in the 11th Plan, 58,597 MW is thermal, 16,553 MW is hydro and rest is nuclear. Besides these, nine UMPPs have been planned, of which four have been allotted to Reliance Power and Tata Power. The upcoming projects under the 11th and 12th Plans, have a installed capacity of 79,330 MW, the highest capacity addition to occur in Gujarat and Maharashtra, exceeding 6,000 MW each.

Financing upcoming investments shall be an uphill task if two-thirds of the investment must come from the private sector. Conventional and other financial sources are likely to increase their power sector exposure manifold. Funds raised by the private sector from the primary markets have increased from 1.9 per cent in 1994-99 to 10.5 per cent in 2004-09. The earlier portfolio of Power Finance Corporation (PFC) represented seven per cent loans to the private sector. It now stands at 22 per cent. Private equity investments in the power sector have risen to 13 per cent.

Banks and non-conventional funding sources are likely to increase their power sector exposure manifold.

To encourage private investments, up-to 100 per cent FDI is permitted, which often results in collaboration with Indian partners for local support. Income tax holiday for a block of 10 years in the first 15 years of operation; waiver of capital goods import duties (on mega power projects) shall encourage private investments.

ROADS

Annual road traffic growth has been projected at 12-15 per cent for passenger traffic, and 15-18 per cent for cargo traffic in the 11th Five Year Plan, with an investment projection of \$78.50 bn in NHDP, State Roads and Rural Roads Programme.

NHDP Phase I and Phase II comprising the Golden Quadrilateral (GQ) linking the four metropolitan cities, North-South and East-West corridor, port connectivity roads and some highways is ~84 per cent complete. Upgradation and four-laning of 12,109 km of National Highways on BOT basis comprising NHDP III is ~15 per cent complete. NHDP IV includes two-laning with paved shoulder for 20,000 km of National Highways, of which NHAI is developing only 14,000 km. Feasible and bankable projects in this programme are yet to be identified and awarded. NHDP V which plans six-laning of 6,500 km of NHs comprising 5,700 km of GQ and balance 800 km of other sections of NHs, is only 5.5 per cent complete (Refer Table 1). Over 60 per cent of NHAI projects face time and cost overruns. With the successful implementation of the PPP model for NH, notably BoT, as evident in NHDP Phases I and II, NHAI has awarded contracts to build 3,000 km of road between April 2010 and August 2010. With another 6,000 km of road contracts in the pipeline in the current fiscal, contract award activity is expected to pick up. The new MCA, which allows for traffic risk sharing, besides standardisation and consistency across projects, has helped increase private sector interest. Incentives such as tax exemptions and duty-free import of road building equipment have added to the conducive PPP policy framework. Companies from Spain, UK, Italy, Saudi Arabia, China, Russia and Malaysia are participating in the National Highway Development Programme.

State highway development PPP programmes have gained pace only in a few states. Of the total investment exceeding Rs 1 lakh crore, close to Rs 8,000 crore worth of projects stand completed. The largest concentration is in Gujarat with 16 projects, followed by AP with 13 projects and MP with 12 projects; others being Rajasthan, Karnataka and Maharashtra.

The main source to finance NHAI and state road programmes is the fuel cess (Rs 2 per litre on petrol/diesel). During 2007-08, of the Rs 8,106.39 crore thus collected, Rs 6,541.07 crore was spent on National Highways and Rs 1,565.32 crore for State roads. These funds are used by NHAI to borrow additional funds from the domestic market and service debt. The Government of India raises loans from the World Bank, Asian Development Bank and Japan Bank for International Cooperation (JBIC) to finance NHDP projects. Transport Minister Kamal Nath expects investment of $80 billion in roads in the next two years—half will be funded by the private sector.

NHAI plans to raise upto Rs 55 billion this year via tax-free and taxable bonds and plans raising funds from overseas bond markets next fiscal. IIFCL guaranteeing infrastructure bonds, shall help generate long-term funds for the infrastructure sector. Allowing insurance companies and pension funds to directly invest in infrastructure projects shall facilitate availability of long-term funds for infrastructure.

Further addressing the long-term capital requirements of the infrastructure sector, the cap on foreign investment in the Indian debt market has been recently lifted to $10 billion. There are also plans to set up a $11 billion debt fund by next year.

Delays in infrastructure projects act as a drag on the economy, causing sub-optimal performances of related sectors. Sector experts attribute project delays primarily to slow PPP procedures. Preparation of Model PPP Bid documents and Model Concession Agreement in 2007 and 2008 for infrastructure sectors could have been time consuming, and slowed project awards. Now that the documents stand finalised, PPP project awards are likely to pick up. (*See Page 76 for statistics*).

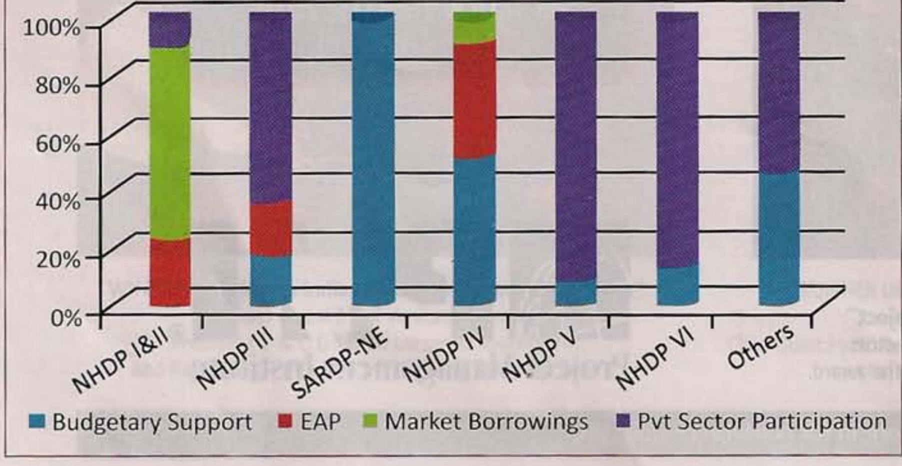
REVISED TARGETS FOR CAPACITY ADDITION DURING 11TH PLAN[1]

Sector	Commissioned till 31 Dec 2009	Likely in the remaining period	Total with high degree of certainty	With best efforts
Central	4,990	16,232	21,222	4,530
State	9,112	12,243	21,355	1,130
Private	4,990	14,808	19,797	6,930
All-India	19,092	43,282	62,374	12,590

STATE HIGHWAYS IN PPP

Category	No of projects	Project cost
Completed projects	73	8,353
Projects under implementation	62	56,406
Projects in bid process	41	17,591
Feasibility studies initiated	44	13,601
In pipeline for 2011-12	38	12,557
Total	**258**	**108,508**

SOURCES OF FINANCING FOR ROAD PROJECTS (PLANNED)



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