

Indian Logistics Focus on infrastructure creation to sustain and drive growth



Contents

About Deloitte	3
About ICC	4
Indian Logistics	5
Overview	5
Roads	7
Railways	10
Air Cargo	13
Ports	15
Conclusion	18

About Deloitte

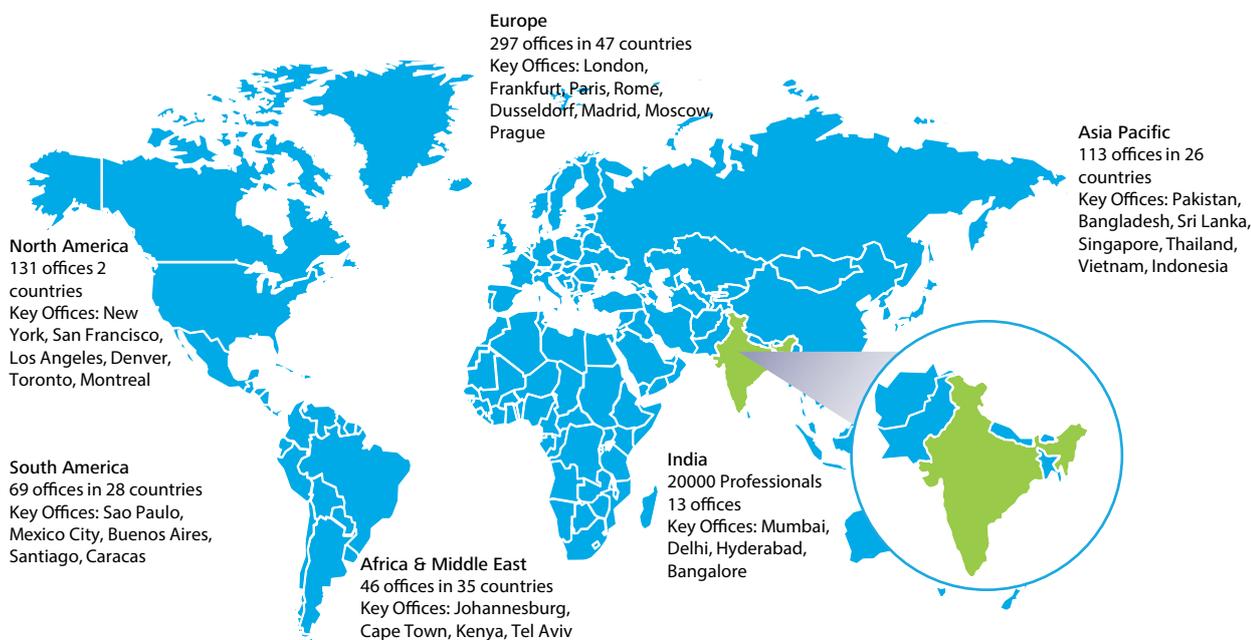
Deloitte drives progress. We advance the aims of our clients and their stakeholders, striving to make them leaders wherever they choose to compete. We focus on making a tangible positive difference by combining strategy with action and delivering measurable impact. We form unique collaborations to find smarter insights, innovative solutions and entrepreneurial ways to move ahead. We invest in outstanding people of diverse talents and backgrounds and empower them to achieve more than they could elsewhere. We believe that when our clients succeed, and when society succeeds, so do we.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/about for a detailed

description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte has in the region of 200,000 professionals, all committed to becoming the standard of excellence.

In India, Deloitte is spread across 13 locations and over 20,000 professionals take pride in their ability to deliver to clients the right combination of local insight and international expertise.



About ICC

Founded in 1925, Indian Chamber of Commerce (ICC) is the leading and only National Chamber of Commerce operating from Kolkata, and one of the most pro-active and forward-looking Chambers in the country today. Its membership spans some of the most prominent and major industrial groups in India. ICC is the founder member of FICCI, the apex body of business and industry in India. ICC's forte is its ability to anticipate the needs of the future, respond to challenges, and prepare the stakeholders in the economy to benefit from these changes and opportunities. Set up by a group of pioneering industrialists led by Mr G D Birla, the Indian Chamber of Commerce was closely associated with the Indian Freedom Movement, as the first organised voice of indigenous Indian Industry. Several of the distinguished industry leaders in India, such as Mr B M Birla, Sir Ardeshir Dalal, Sir Badridas Goenka, Mr S P Jain, Lala Karam Chand Thapar, Mr Russi Mody, Mr Ashok Jain, Mr. Sanjiv Goenka, have led the ICC as its President. Currently, Mr. Shrivardhan Goenka is leading the Chamber as its President.

ICC is the only Chamber from India to win the first prize in World Chambers Competition in Quebec, Canada.

ICC's North-East Initiative has gained a new momentum and dynamism over the last few years, and the Chamber has been hugely successful in spreading awareness about the great economic potential of the North-East at national and international levels. Trade & Investment shows on North-East in countries like Singapore, Thailand and Vietnam have created new vistas of economic co-operation between the North-East of India and South-East Asia. ICC has a special focus upon India's trade & commerce relations with South & South-East Asian nations, in sync with India's 'Look East' Policy, and has played a key role in building synergies between India and her Asian neighbours like Singapore, Indonesia, Bangladesh, and Bhutan through Trade & Business Delegation Exchanges, and large Investment Summits.

ICC also has a very strong focus upon Economic Research & Policy issues - it regularly undertakes Macro-economic Surveys/Studies, prepares State Investment Climate Reports and Sector Reports, provides necessary Policy Inputs & Budget Recommendations to Governments at State & Central levels.

The Indian Chamber of Commerce headquartered in Kolkata, over the last few years has truly emerged as a national Chamber of repute, with full-fledged offices in New Delhi, Guwahati, Patna, Bhubaneswar and Ranchi functioning efficiently, and building meaningful synergies among Industry and Government by addressing strategic issues of national significance.

Indian Chamber of Commerce, New Delhi Office
D -118, Ashirwad Complex
Green Park Main
New Delhi - 110 016
Ph: 011 46101431-38
Fax: 011 4610 1440/1441
Email: energy@indianchamber.net

Indian Chamber of Commerce, Head Office
4 India Exchange Place, Kolkata 700 001
Phone: 033-22303242
Fax: 033 2231 3380, 3377
Email: ceo@indianchamber.net
Website: www.indianchamber.net

Indian Chamber of Commerce, Bhubaneswar Office
32-East Ashok Nagar, Bhubaneswar, Orissa
Phone: 91-674-2532744
Email: rd.orissa@indianchamber.net

Indian Chamber of Commerce, Guwahati Office
House No.209, 2nd Floor
Opp. Overtnite Express
Near AIDC, R.G.Barua Road, Guwahati - 24
Ph: 0361 2460216 / 2464767
Fax: 0361 2461763
Email: iccner@indianchamber.net

Indian Chamber of Commerce, Bihar Office
11/B, Dumri House,
Kavi Raman Path, East Boring Road,
Patna – 800001, BIHAR.
Tele Fax No. - +91-612-2533636
E mail id - rd.patna@indianchamber.net

Indian Chamber of Commerce
181 – C; ROAD NO. – 4
ASHOK NAGAR
RANCHI – 834002, Jharkhand.
Tel : +91-651-2243236
Fax : +91-651-2243236

Indian Logistics



Overview

India's need for infrastructure creation in the logistics sector is striking. In just a decade India has seen its economic size more than double to \$ 1.37 trillion (2012)¹ and total foreign merchandise trade multiply from 20% of GDP (2000) to 42% of GDP (2012)². This growth has been accompanied with a phenomenal rise in the volume of freight traffic movement over the period. However, logistics infrastructure and services in the country have arguably not developed at the same pace to support and further this growth. Going by global standards, the Indian logistics sector is characterized by concerns around higher costs, lower profitability, lack of adequate availability of trained manpower resources and lower adoption of technology in its processes.

These concerns are also reflected in the drop in India's rank on World Bank's Logistics Performance Index (LPI)³, which measures a country's performance on six key criteria. Over the past five years, the country's LPI rank has fallen from 37 (2007) to 46 (2012) as its score has stagnated over the period while competing countries have improved on the same. India lags behind other major markets such as Brazil (41), China (26), US (9), and Germany (4). Particularly, India's rank on quality of trade and transport-related infrastructure (ports, railroads, roads and information technology), which is one of the six criteria, has deteriorated from 47 (2010) to 56 (2012). Congestion witnessed on roads and ports, longer dwell times on ports, longer overall transit times and overloading of trucks leading to faster deterioration of road infrastructure would reflect this.

For any economy, the logistics sector, encompassing transportation, warehousing, cargo consolidation and border clearances, would form the backbone of its trade, and associated economic activity and growth of key sectors. The cost of trading whether by sea, land or air forms a critical component of the final price of a commodity. An efficient logistics system reduces this cost, providing a competitive edge and propelling economic activity. As per a McKinsey study, inefficiencies in logistics infrastructure cost the Indian economy an extra \$45 billion, about 4.3% of the GDP, every year. It warns that a 2.5 times growth in freight traffic demand by 2020 (compared with 2010 levels) will put further stress on India's infrastructure⁴.

However, such high demand prospects also present an opportunity for logistics industry players in India. The Emerging Market Survey, 2013, conducted by Transport Intelligence (Ti) ranks India as the second most attractive logistics market in the future after China, and its position has not changed over the past four years⁵. As a fast growing economy with one of the largest consumer markets, industries such as automobile, pharmaceuticals, FMCG and retail will drive the demand for logistics in India in the future. Further impetus will come from the increasing emphasis on enhancing manufacturing and exports.

The current stress on the logistics system and its performance suggests that one of the key issues is inadequacy of transportation logistics infrastructure. In recent years, the Indian government has accorded high priority to this and allocated greater public budget

¹ GDP at 2005 \$, World Development Indicators, World Bank

² Current US\$ terms, World Development Indicators, World Bank

³ The LPI index scores 155 countries on six main parameters on a scale of 1 (worst) to 5 (best) every two years. These criteria include: a) efficiency of the clearance process (speed, simplicity, and predictability of formalities) by border control agencies, including customs; b) quality of trade- and transport-related infrastructure (ports, railroads, roads, information technology); c) ease of arranging competitively priced shipments d) competence and quality of logistics services (transport operators, customs brokers); e) ability to track and trace consignments and f) The frequency with which shipments reach the consignee within the scheduled or expected delivery time.

⁴ Building India – Transforming India's Logistics Infrastructure, McKinsey & Company, September 2010

⁵ The Index examines 45 major emerging markets and identifies the attributes that make a market an attractive investment for logistics companies, air cargo carriers, shipping lines, freight forwarders and distribution property companies.

to boost overall infrastructure spending. Planning Commission has budgeted for an initial infrastructure investment of Rs. 4.1 trillion (9.95% of GDP) over the 12th Five Year Plan (FYP) period (2012-2017) in order to sustain a real GDP growth rate of 9% over the period. This is almost double the amount proposed under the 11th Five Year Plan (2007-2012) in real terms⁶. The government has opened up the sector to private investment to bring in better technology, operational efficiencies and other best practices. Initiatives have been taken to facilitate private participation and attract private, foreign and multilateral finance to the sector. Planning Commission estimates of mobilization of private investment during the 11th FYP indicate that out of the plan outlay for respective sectors, about 80% in Ports, 64% in Airports and 16% in Roads came through private sector.

But global and domestic economic slowdown over the past two years has stymied overall infrastructure creation. Moreover, several issues have cropped up – some universal across sectors and others more specific to certain sub-sectors. On one hand, the gloomier macroeconomic conditions – slowing growth, rising inflation and interest rates have weighed on the risk appetite of lenders; on the other, such conditions have distressed developers, whose balance sheets felt greater stretch on account of low liquidity and cash flows compared with earlier years. This was further complicated by changes in project viability in many cases as initial traffic projections were deemed overestimated. Creation of infrastructure was also delayed on account of issues related to environmental clearances, land acquisitions as well as sector specific challenges that stalled financial closures for awarded projects or impacted investor interest for new projects.



⁶ Planning Commission, report of the Working Sub-Group on Infrastructure Under Working Group on Savings Formulation of the 12th Five Year Plan

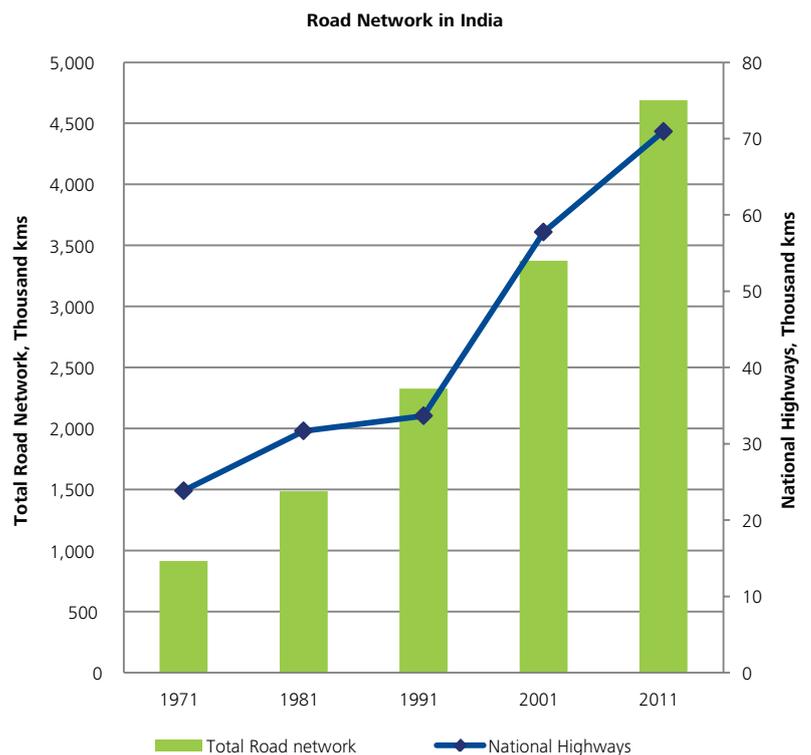
⁷ As of 31st March 2011, Basic Road Statistics, Ministry of Road Transport & Highways

⁸ NHAI

Roads

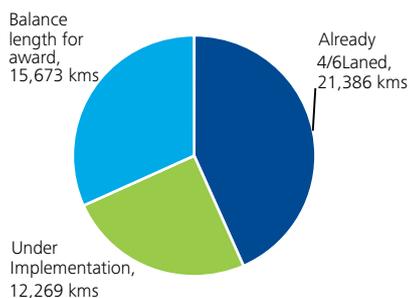


The overall road network in India has witnessed significant expansion over the last two decades with the network doubling to 4.7million km² by 31st March 2011. Key government initiatives leading to such growth include Pradhan Mantri Gram Sadak Yojna (PMGSY) and National Highway Development Program (NHDP) focusing on rural roads and National Highways respectively. However, concomitantly, the country's reliance on roads for its freight movement has grown even faster. Growing at 10.2% per year for the last five years, vehicular population growth has outpaced expansion of the road network.⁸



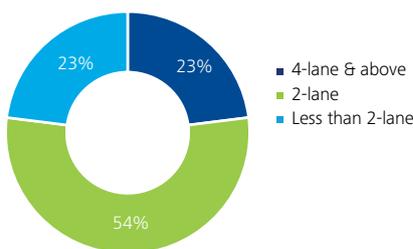
Source: Basic Road Statistics, Ministry of Road Transport & Highways

Status of NHAI Projects as on 31 October 2013



Source: NHAI website and 12th Five Year Plan

Status of laning in operational National Highways as on 31 March 2012



National Highways (NHs) constitute 1.6% of the total Indian road network but carry over 40% of road-based traffic, making it the most critical segment of the road sector⁹. However, with only 23% of the national highways having 4-lanes or more, transporters continue to grapple with heavy congestion and poor riding quality which essentially results in higher costs for them. The McKinsey Study points out that cost of transportation by road in India is 30% higher than that in the US. Moreover, road transport is also understood to suffer from issues such as overloading of trucks and oversized cargoes moving without requisite permissions, and multiple check-points en route (for cargo and vehicle inspection, tax and toll collection, for permit check etc.) that delay transit.

Financing Investment in Roads

For the development of roads sector, during the 12th FYP (Refer Box 1), the Planning Commission has made a budgetary provision of Rs. 1,447.7 billion in addition to internal generation and Extra Budgetary Resource (EBR) of Rs. 648.3 billion. This is around 33% higher than the actual outlay over the 11th FYP period. With the overall budgetary constraints of the Government of India, initiatives have been taken to attract private investment. Compared to other infrastructure sectors, framework for private sector participation in the roads sector is at an advanced stage of development. It includes mechanisms such as the Model Concession Agreement (MCA), standardization of contractual documents, dedicated nodal agencies and enabling bankability of projects through mechanisms including cess / taxes. These generated private sector interest and enabled off-take

of several projects on PPP basis. On account of these initiatives, total private-sector investment on NHDP during the period FY 2007-2012 increased to Rs. 626.3 billion as against Rs. 110.3 billion during the 10th FYP.

Box 1: Key Investment Plans for 12th FYP period

- Conversion of the Golden Quadrilateral to 6-lane roads
- Completion of the North-South and East-West corridors, NHDP phase III and phase IV which includes expanding existing single-lane roads during the 12th FYP period.
- Upgradation of National and State Highways to minimum two-lane standard
- Construction of 1,58,000 kms of new rural roads along with an upgradation of 84,181 kms of existing rural roads under PMGSY
- Development of kms 1,000 kms of expressways kms

At the State level, governments have used a mix of funds from multilateral agencies such as World Bank and Asian Development Bank, budgetary allocations and private investments to develop state highways and major district roads. Rural roads have been largely financed through budgetary allocation under the PMGSY. Considering bankability of National and State highways, it is expected that rural roads would continue to be funded through budgetary resources.

Much of the NHDP program has been financed through a combination of funds from cess on petrol and diesel, external assistance, market borrowings and private sector investment in PPP projects. The program envisages an investment of Rs. 2,362.5 billion during 2005-2012. It is understood that during the period FY

⁹ NHAI

2007-2012, more than 90% of the private investment in National Highways of Rs. 626.3 billion went to NHDP.

Financing Challenges

Although quite successful until recently, road PPPs have been hit hard over the last two fiscal years. In the previous financial year, projects for only 1,116 kms were awarded against the target of 9,500 kms. Several NHDP projects awaited financial closure in 2012-13 and even mega projects suffered a setback. In the first half of 2013-14, NHAI has only been able to award projects for about 550 km.

In the last 5 years, competition in the road sector surged and taking an optimistic view, developers began bidding aggressively for road projects. However, a combination of factors – economic slowdown, rising inflation, dwindling cash flows for developers, rising interest rates and comparatively lesser access to equity and debt funds for projects – have reduced attractiveness for some of the projects from developers' perspective. In some instances, the situation has been aggravated by issues around land acquisition and environmental clearances. There have also been instances where large developers have tried withdrawing from awarded contracts. Such a situation has led to discussions around potential modifications in the model framework. Large number of projects awarded during 2011-12 are yet to achieve financial closure and developers are demanding renegotiation of contracts with demands such as rescheduling of premium payments.

Recent Policy Initiatives to attract Investments

The government has undertaken a number of initiatives to revive investments in the sector in 2013. These include delinking forest and environmental clearances for linear projects, exempting upgrading of projects from forest clearances and simplifying approvals process for road projects meeting a certain project cost threshold. In a major move to ease lending to road developers, the RBI allowed banks to classify domestic

debt for BOT projects as secured loans. It allowed banks to treat annuities under BOT model in respect of road/highway projects and toll collection rights, where there are provisions to compensate the project sponsor if a certain level of traffic is not achieved, as tangible securities¹⁰. Additionally, it directed banks to lower the land acquisition requirement for disbursing loans as well as relax appraisal norms for PPP and EPC projects to reduce delays in award of projects. The Cabinet Committee on Investments has approved the EPC model for projects that were not viable on PPP basis, although no projects were awarded on EPC in 2012-13.

The C. Rangarajan Committee, set up by the government to formulate terms and conditions for restructuring of premium payments for road developers. The impact of this is yet to be seen. Further a new toll policy was introduced putting a toll cap on operation of roads during lane expansion and fines on overloaded trucks. Also NHAI is considering making amendments to PPP bidding documents based on feedback from bankers, developers etc.

Sector Outlook

Even though these initiatives have helped revive investor interest, the targets set by Ministry of Road Transport and Highways for 2013-14 had to be trimmed. Bidders' interests remain limited on account of previous experiences with projects and cautious approach by lenders. 100% availability of land has become a pre-condition of the lenders. Insufficiently addressed issues related to time and cost overruns due to delays in land acquisition, project approvals etc. continue to be factors impacting investor interest. The sector is also witnessing secondary transactions. However, the conditions typify a "buyer's market" leading to a reduction in transactions on account of mis-match with sellers' expectations on valuations.

¹⁰ RBI Circular: RBI/2012-13/445

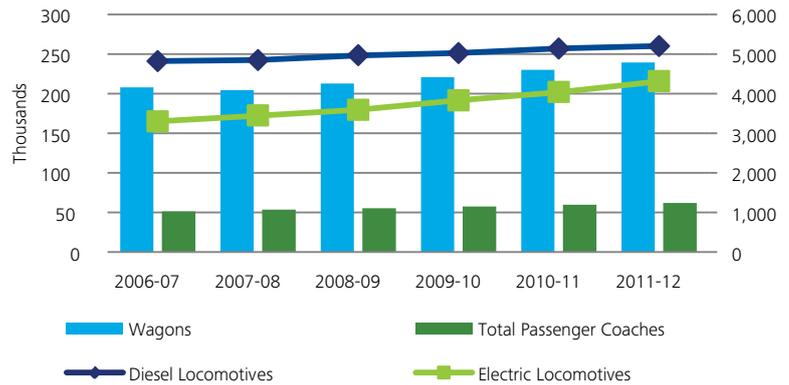
Railways

Passenger and freight traffic on Indian Railways has seen a consistent increase during the period from FY 2006-07 to FY 2011-12 at a CAGR of 8.54% and 6.70% respectively¹¹. Comparatively, creation of infrastructure has not kept pace. Infrastructure addition took place at a snail's pace with CAGR for addition of line capacities and rolling stock over the same period being less than 5%. As a result, rail infrastructure has been facing stress and major routes face congestion and oversaturation. Particularly in the freight segment, from which Indian Railways (IR) earns nearly 70% of its revenue, IR has been losing market share to roads sector. Given that rail transportation forms is hugely important especially for transportation of major bulk commodities like coal, cement, food grains and iron ore, inadequate railway capacity expansions and modernisation could stymie future economic growth of the country. A McKinsey Study highlights the under-utilization of rail infrastructure as a means of transportation and points out that rail transport costs in India are about 70% more than that in the US¹². It estimates that the share of rail in the freight market would decline to 25% over the next few years, if adequate investments are not made. Planning Commission, in its 12th FYP document, has also noted the scope for improvement in the productivity levels of IR in comparison to Chinese and Russian Railways.

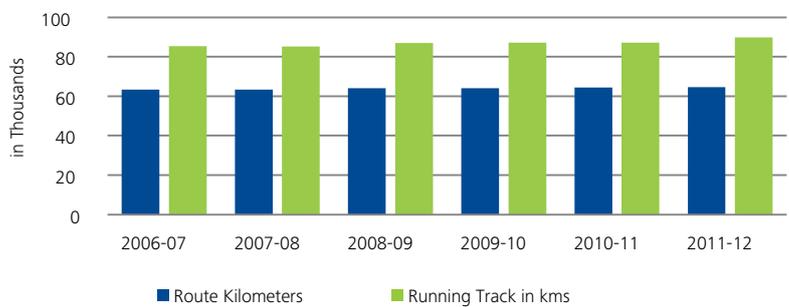
Investment Plans

Recognizing the potential, Ministry of Railways (MoR) set ambitious growth targets in the 11th and 12th FYPs and initiated policies to create opportunities for private participation. The targets for 11th FYP were set considerably higher than those achieved in 10th FYP and with focus on creation of infrastructure, these targets were achieved and, in fact, surpassed in certain categories. However, the throw forward of the projects was also quite high including projects for building up of 132 New Lines¹³. Investment plans have been set at still higher levels for the 12th FYP emphasising completion of the big ticket Eastern and Western Dedicated Freight Corridors projects. Similar ambitious targets have been set for acquisition of rolling stock with more than 100,000 wagons and 25,000 coaches being planned to be acquired during FY 2012-13 to 2016-17. MoR targets to increase rail's freight market share by at least 2% during the period.

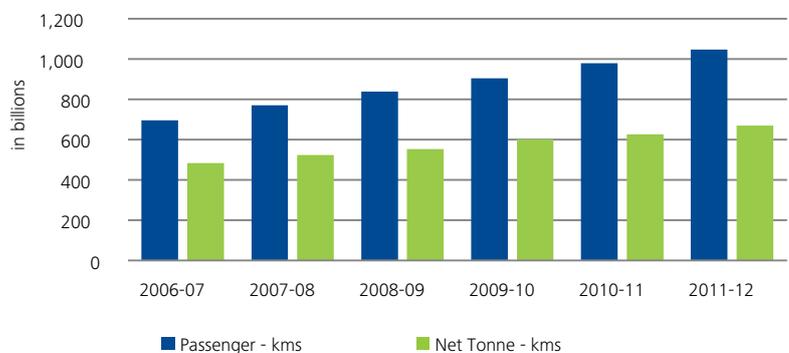
Rolling Stock in Indian Railways



Line Capacity for Indian Railways



Traffic on Indian Railways



Source: Statistical Summary of Indian Railways 2011-12

¹¹ Statistical Summary of Indian Railways for FY 2011-12
¹² Building India – Transforming India's Logistics Infrastructure, McKinsey & Company, September 2010
¹³ 12th Five Year Plan Draft

Railway infrastructure generation over the 11th FYP and targets for 12th FYP

Asset	10 th FYP	11 th FYP		12 th FYP
	Achieved	Revised Target	Achieved	Target
	(km)	(km)	(km)	(km)
New Line	920.0	2000.0	2,205	4,000
Eastern & Western Dedicated Freight Corridors			Work in progress	3,338 (double line except 400 km)
Gauge conversion	4289.0	6000.0	5,290	5,500
Doubling	1300.0	2500.0	2,756	7,653
Railway Electrification	1810.0	4500.0	4,501	6,500

Source: 12th Five Year Plan

Financing Challenges

Traditionally, IR has depended on general budgetary support (GBS), market borrowings (EBR) and internal generation for financing its expenses and investments.

During the 11th FYP, IR aimed for overall investments worth Rs. 2,332.9 billion to be financed largely through EBR and internal generation. However, internal generation for IR did not materialize to the desired extent, over this period, despite improvement in revenue-earning freight traffic, on account of increase in wages following the implementation of the Sixth Pay Commission. Much of the investment was financed through GBS and market borrowing through Indian Railways Finance Corporation. Indian Railways has been able to attract private investment at around 4% of its plan outlay. In line with the physical targets for acquisition of rolling stock and creation of rail infrastructure, Indian Railways is envisaged to require an investment of Rs. 5,192.2 billion¹⁴ over the 12th FYP.

The large upfront costs of setting up rail infrastructure, willingness to leverage efficiencies of private sector and the urgency of creating this infrastructure has led the government to open up the sector to private investment. One of the key initiatives included opening up of the container rail business for private investment in 2006-07. It allowed the entry of private container train operators who have until date brought in an investment of about Rs. 60 billion (based on an industry estimate) which includes rolling stock, terminal facilities, containers and a substantial amount of Licence Fee. This investment could arguably have been higher, had

IR policy on container rail transportation been more supportive. IR has invited PPPs in manufacturing rolling stock and locomotives at two factories in Bihar. The Cabinet has approved setting up of these factories at Madhepura and Marhaura and these projects are likely to generate interest from leading international manufacturers.

Recent Policy Initiatives to attract Investments

Since the commencement of the 12th FYP period, several key policies have been announced in a bid to attract private investment in development of rail infrastructure. The most successful policy has been the one on Private Freight Terminals which has for the first time provided for private construction and operation of rail terminals on private land by third parties. In a very short period, over 40 PFTs have either already become operational or are in different stages of construction, approval, commissioning or notification. A draft policy on rail terminals at private ports was also announced.

The Cabinet Committee on Infrastructure has approved the policy for private participation in rail connectivity and capacity enhancement projects, suggesting five generic models for private investment in rail infrastructure. It is understood that these have been developed keeping the concerns of the private sector in mind. Ministry of Railways (MoR) has also announced the new Automobile Freight Train Operation (AFTO) Scheme, 2013 to facilitate private participation in supply of special wagons. Furthermore, the Cabinet has approved the formation of a Rail Tariff Authority (RTA) which will recommend modifications to tariffs for freight

¹⁴ 12th Five Year Plan Draft

and passenger segments to the Railway Board from time to time considering both input costs and volatile market conditions. Railway Board has requested approvals for foreign direct investment in projects such as the elevated rail corridor in Mumbai, the dedicated freight lines, port connectivity projects and station development for infrastructure construction and maintenance as well¹⁵.

Sector Outlook

Interaction with the MoR reveals that some private players have expressed interest in port connectivity projects, and currently interactions are on to understand project viability and risk sharing. However, the appetite of developers for large infrastructure projects on PPP in the railway sector needs to be tested. Thus far, private investment in railways has not been as much as it has been in other infrastructure sectors. On account of factors such as requirement of high upfront investment, as well as lack of precedence of projects, policies and regulatory framework attractive for private investment, evaluating viability and risks for projects in railways is perceived to be harder. The proposed frameworks need to provide greater clarity on models within which private and public entities could participate. For instance, IR does not prefer private participation in train operations and it makes the monitoring of IR's operating performance on the concerned stretch difficult for the private investor. Private container train operators expect a level-playing field to be able to compete or collaborate with CONCOR and create a success story. Presently, the enthusiasm for PPPs or any private participation with IR appears to be low and would perhaps need to be tested going forward. On the whole, while the sector offers a major opportunity, more needs to be done in terms of sector governance, facilitation of private participants and opening up of Indian Railways to attract private participation.



¹⁵ October 16, 2013, "Comfortable with 100% FDI in rail infra: railway board chief", Live Mint

Air cargo

Air cargo is targeted mostly at perishable and high value commodities as well as at industries requiring time-sensitive service. In India, air transportation accounts for a very small percentage of the freight market but it has grown dramatically over the past two decades following the introduction of the Air Cargo Open Sky policy in 1990¹⁶.

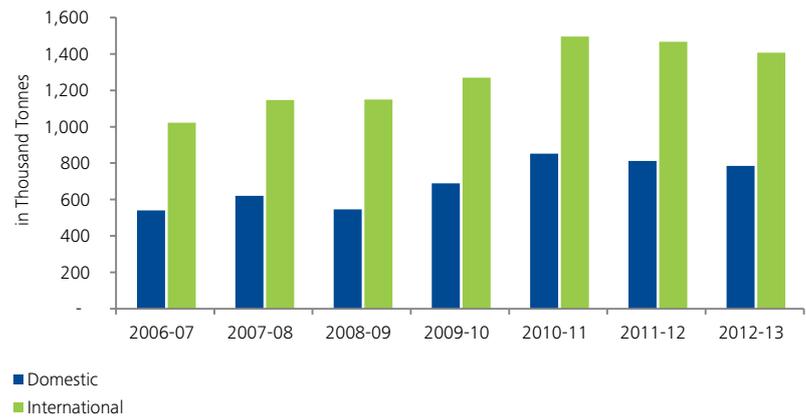
While Indian air cargo traffic witnessed consistent growth till 2010-11 at more than 10% CAGR, decline in economic growth rates have resulted in a drop in traffic for 2011-12 and 2012-13. This is largely due to drop in international cargo volumes that accounts for two-thirds of the total air cargo. In 2012-13, air freight traffic stood at 2.20 million tonnes¹⁷. Nonetheless, as the economy revives, air cargo volumes are expected to grow with industry estimates putting the growth at 8 to 10 times over the next 20 years.

The air cargo supply chain includes airlines, customs, ground services, air cargo forwarders, domestic transportation, air cargo terminals, distribution centres and integrated international express services centres. Facilities for handling and processing cargo at the airports are critical in this supply chain. Government of India has undertaken upgradation and modernization of air cargo facilities at various airports (Mumbai, Delhi, Chennai, Bengaluru, Kolkata, etc.) over the last 5-7 years in order to enhance cargo handling capacity at airports. Air cargo movement in India has higher dwell times as compared to global benchmarks and procedural improvements to enable reduction in dwell times would need continuous focus.

Investment Plans for Air Cargo Infrastructure

Air cargo traffic in the past decade has grown sharply on account of a robust overall economic growth and response by airports and airlines to meet the demand. To provide a boost to the sector, investment plans have been drawn by government as well as concessioned airports. While a new air cargo terminal by Delhi Cargo Service Center (DCSC) with a capacity of handling 1.25 million tonnes of air cargo has become operational at Delhi Airport, DIAL has already initiated consideration of building a world class cargo village to facilitate air cargo trade and provide freight forwarders on-airport warehousing and office facilities¹⁸. A deal has been signed to set up a free trade zone, India's first airport based commercial zone, at the Hyderabad airport. More

Growth of Air Cargo Traffic in India



Source: AAI

recently, AAI has issued RFQs for private participation in 6 airports including the Chennai and Kolkata airports on PPP basis with scope of works including building new cargo terminals.

The 12th FYP projections suggest that overall volumes of cargo will grow at 10.6% CAGR to 4.4 million tonnes by 2016-17. In order to meet this demand, the Civil Aviation Ministry plans to establish cargo terminals at 24 major and non-major airports by 2020¹⁹ in addition to the Multi-modal International Cargo Hub and Airport at Nagpur (MIHAN).

Financing Investment for Air Cargo

Most of the recent projects for development of airport infrastructure have been undertaken through PPPs. Over the 11th FYP, total investment made by private airport operators was to the tune of Rs. 300 billion. AAI spent around Rs.125 billion during the period to develop several major and non-major airports. In the 12th FYP, an investment of Rs. 675 billion has been planned for the overall airports sector. Of this Rs. 500 billion is expected to come from the private sector and remaining from AAI.

While the facilities for handling air cargo are being augmented at various airports, dedicated facilities for handling specialized cargo are missing at various airports. Globally, perishable cargo has received greater attention with facilities having separate chambers with different temperature ranges and climate control to

¹⁶ As per the policy, India allowed domestic and foreign carriers to operate both scheduled and non-scheduled cargo services between all Indian airports

¹⁷ Ministry of Civil Aviation, Annual Report 2012-13

¹⁸ Ministry of Civil Aviation, Annual Report 2012-13

¹⁹ Strategy Plan of the Ministry of Civil Aviation for 2010-2015

handle pharmaceuticals, chemicals, dairy products, meat products and agricultural products separately. Such dedicated facilities / chambers are yet to be developed on a large scale in India. Industry may require government support for establishment of such facilities both at a policy and project development level.

Recent Policy Initiatives to attract Investments

Ministry of Civil Aviation has formed an Inter-Ministerial Air Cargo Logistic Board headed by Secretary, Ministry of Civil Aviation. The Board is expected to establish policy guidelines for setting up of air cargo facilities at airports and will also set performance standards relating to the quality of service for air cargo. It will also review, on a continuous basis, the general and sectoral policy regime governing air cargo logistic operations to improvise efficiency²⁰.

Initiatives from the government to facilitate participation of private players in the air cargo business has enabled entry of several leading private – domestic and global cargo operators such as Celebi, CSC, Menzies bringing in the latest technology and best practices. Other initiatives include introducing round-the-clock customs clearance services at 12 air cargo complexes. Augmentation of cargo handling capacities at the airports includes establishment of the Mangalore International Air Cargo complex by Airports Authority of India (AAI) and construction of a modern air cargo hub and fully automated cargo handling system at Chennai Airport. Non-metro airports including Guwahati, Chandigarh, Surat and Trichy have also planned for capacity additions on cargo side.

Green Channel facility for exports and imports are being expanded to include a larger segment of users. Simplification of Customs procedure and increased use of Information Technology has been another focus area for the government. IATA e-freight, implementation of ICES 1.5 and enhanced integration with banks for e-payments are some of the initiatives in this direction.

Sector Outlook

There is scope for growth in air-cargo sector in India as overall air cargo traffic in India remains less than that of individual airports like Hong Kong, Memphis, Shanghai, Incheon and Anchorage. Even though cargo related infrastructure has been developed and enhanced at major Indian airports in recent years, procedural aspects may need continued focus to unleash future growth prospects.

Also, further investments may be required in cold chain infrastructure facilities to handle perishable commodities; agent warehouses, office areas and other facilities located near the terminals; off-airport cargo facilities; etc. Off-airport cargo facilities have been discussed by the industry for a long time and there has been a movement in that direction at some airports. Suitable policy measures such as spelling out the framework for sharing of charges / revenues between the on-airport and the off-airport facilities may need to be considered to facilitate investment in such facilities.

²⁰ <http://pib.nic.in/newsite/erelease.aspx?relid=84758>

Ports

More than 90% of India's international trade volumes are carried through the sea route, making ports one of the most critical components of India's freight value chain. Total traffic handled at major and non-major ports of India increased to 933 million tonnes. Over the years, share of major ports has come down in the overall port traffic with the current levels being around 60%. Infrastructure for both major and non-major ports has attracted significant investment in recent years, augmenting overall port capacity to 1.3 billion tonnes. However capacity additions at major ports have been limited and coupled with better efficiency and product mix at non-major ports have allowed the shifting of cargo volumes from major to non-major ports specially private ones like Mundra and Dhamra ports.

However, improvements in efficiency of port operations have been mixed. While average output per ship berth day has improved, the average turnaround time and average pre-berthing detention time have deteriorated from 2006-07 levels.

Average capacity utilization at major ports is around 72%²¹. As the global economy revives, pressure on the port infrastructure can be expected to increase.

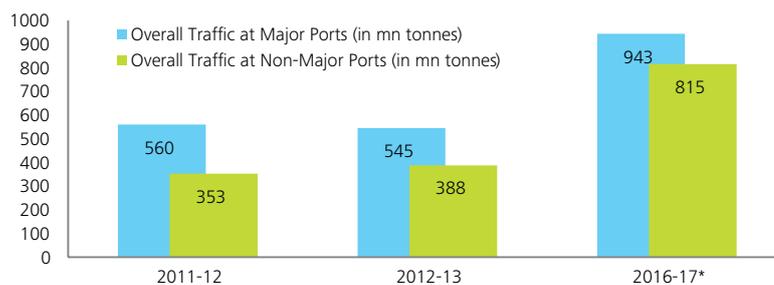
Investment Plans for Ports

To be able to address the anticipated traffic by FY 2016-17, significant capacity additions have been planned over the 12th FYP. Overall port capacity is expected to be increased from its present level of 1.3 billion tonnes to 2.3 billion tonnes. The existing capacities are more targeted towards liquid bulk / POL and Containerized movements. It may also be important to add specialized facilities for bulk commodities such as imported coal to enable handling of larger quantities of the same.

Restriction of iron ore exports has led to release of certain capacities at ports handling such traffic specially Mormugao and Paradip. Depending upon future regulations around this movement and demand for iron & steel, the traffic for coal and iron ore could increase.

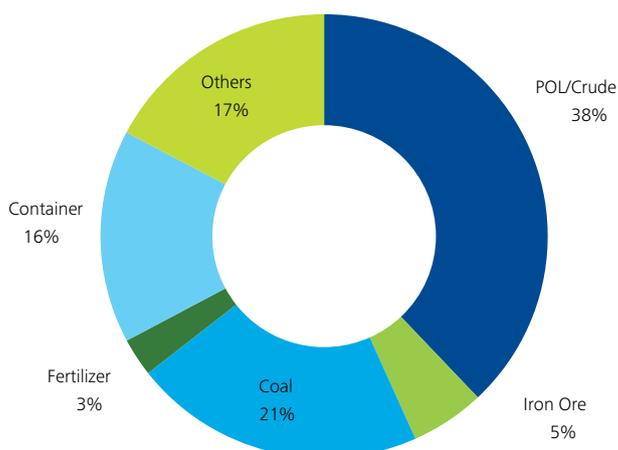
Capacity enhancements have been planned at both major and non-major ports with certain non-major Greenfield ports having been planned. However, Greenfield non-major ports planned by the State governments have been delayed on account of slow land acquisition, security and environment clearances.

Traffic at Major and Non-major Ports



* - Planning Commission Forecasts

Commodities in Overall Port Traffic for 2012-13



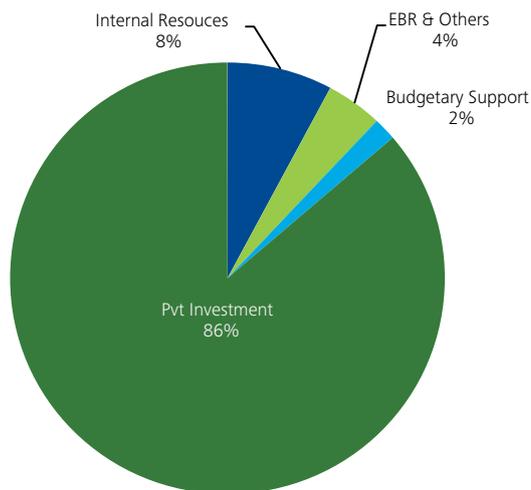
Source: Indian Ports Association 2012-13

Key augmentations planned by major ports include deepening of berths, construction of jetties and rail/road connectivities. The 12th FYP stresses on increasing the share of containerised cargo at ports in order to capture a greater share of international trade. Shipping companies have focused on setting up captive facilities as well since these are relatively more insulated from the fluctuations in international demand and offer a cushion in the current economic scenario.

Financing Challenges

Responding to the ambitious capacity augmentation plans, Planning Commission estimates overall investment at major and non-major ports to be around Rs. 738 billion and Rs 1,068.3 billion respectively. As in the previous plan period, private investments are expected to contribute a substantial part of this planned investment.

Planned source of funding overall investments in Ports during 12th Plan



Source: 12th Five Year Plan

PPP will continue to be the preferred mode of port development during the 12th FYP period. However it faces challenges on account of various factors. As regards major ports, instances of reduction in tariff by the regulator due to certain ports / terminals handling more than forecast volumes while not considering the royalty / revenue share (paid to respective Port Trusts) as an expense is said to have dampened initiatives by concessionaires to enhance volumes at their terminals. Concessionaires also expect Port trusts to fulfil obligations under the contracts in lieu of the monies paid to them. For example, a private container loading facility at Kandla Port collapsed in 2013, just a few years into a 30-year contract on account of a dispute between the port authority and the private investors with both alleging each other of not fulfilling obligations under the contract. While State and Central governments intend to set up ports, there is scope for enhanced focus on adding evacuation facilities. This also suffers from issues of land acquisitions and clearances for setting up rail / road linkages. The non-major ports, which were able to develop evacuation facilities adequately, have demonstrated robust growth in traffic with examples of Mundra, Pipavav and Dhamra Ports. For the non-major ports, which have in recent years attracted increasing share of private capital, lack of clarity on land

acquisition, high capital costs, and inadequate provisions of rail/road connectivity pose risks. On the whole, investor interest has dampened in the recent past as evident in relatively fewer bids for PPP projects.

Recent Policy Initiatives to attract Investments

Initiatives were taken to alleviate some of these concerns over the past year. To allow flexibility in tariff determination and provide a level playing field between major and non-major ports, the Ministry of Shipping (MoS) launched the Guidelines for Determination of Tariff for Projects at Major Ports, 2013 suggesting that the MoS will set the reference tariff for a commodity, applicable for five years. PPP project approvals process was modified to expedite project implementation. Also, new security guidelines for bidders for ports and dredging projects were introduced.

Sector Outlook

The government has taken several initiatives to alleviate concerns but their benefits are expected to take some time to become visible. Revised guidelines for setting of tariff is expected to bring back investor interest in ensuring growth in the volumes handled. Policy on development of rail connectivity including first / last mile connectivity announced by the Ministry of Railways with alternative models will provide a better platform to ports for planning the required augmentation in evacuation. This will also facilitate quicker turnaround times for ports enabling servicing of higher volumes. While some of the States have dedicated Maritime Boards to facilitate investment by private sector, some need to develop standardized processes / institutions to shorten the process of approvals / clearances and also to better plan for suitable locations / market for the upcoming ports. Creation of infrastructure around the port facilities would play a key role in the near future to ensure consistent growth in port traffic.



Conclusion

The above discussion points to three key aspects.

One, in each of the sectors profiles, there is scope for capacity creation and efficiency improvement to ensure improvement on a 'logistics performance index' (time and cost). Second, the opportunity in each sector is enormous and the 12th FYP has set ambitious targets for expanding these capacities significantly over the plan period. Third, if the gap between current and potential levels has to be closed urgently, huge private sector investment will be required to bring in both – funds and best practices.

For this purpose, the government and respective authorities must facilitate private sector participation. Over the past two years, environment clearances and land acquisition emerged as key issues that coupled with economic slowdown jeopardised projects under implementation / reaching financial closure, which adversely affected investor sentiment. The economic slowdown significantly changed viability of many projects across sectors, partly because of aggressive bidding by private sector on some projects. This experience must be leveraged to put in place mechanisms that ensure project risks are identified and project viability and traffic projections are assessed objectively before the award of project. Also, steps must be taken to address any major project viability risks that materialise, before they begin to affect the larger investment sentiment and/or create several project delays.

Furthermore, there is a requirement of continuously evolving the risk sharing framework between the private sector and the government. While the PPP frameworks for roads and ports sectors are at an advanced stage of development, having undergone several rounds of revision, there are likely to be areas for continued focus. For instance, in the Roads sector, renegotiation of certain provisions under the concessions are being sought by the private sector to make the project

development viable after bidding (for instance, allowing back-ending of payments of premium). Proposed revision in the guidelines for setting of tariff for major ports is expected to allow greater role of competitive forces in tariff determination and to providing a level-playing field between major and non-major ports. For other sectors PPP framework development would need to be focused on. Private investment in creation of rail infrastructure could take-off subsequent to the private sector participation policies announced by Ministry of Railways, provided the concession agreements for the same are also finalized and notified. Development of air cargo complexes on PPP basis is presently getting bundled as part of the overall airport development and may need separate focus – especially in as far as it contributes to storage / movement of specialized (perishable) cargo.

Time has also come that an integrated approach is adopted to plan investments in the sector. For example, while greater private participation is resulting in rapid port capacity expansion, adequate evacuation infrastructure i.e. roads and railways need to be built to transfer goods between the hinterland and ports. Similarly, railway infrastructures needs to be developed faster, and the existing network strengthened on major freight routes, as roads get congested quickly with passenger as well as freight traffic despite rapid expansion. Planning and implementation in these sectors must be undertaken in a coordinated manner to ensure that economic value is actually created.

Contacts

Amrit Pandurangi

Senior Director

Phone: +91 124 679 2363

Email: apandurangi@deloitte.com

Peeyush Naidu

Senior Director

Phone: +91 124 679 2401

Email: pnaidu@deloitte.com

Vishwas Udgirkar

Senior Director

Phone: +91 124 679 2363

Email: vudgirkar@deloitte.com



Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

This material and the information contained herein prepared by Deloitte Touche Tohmatsu India Private Limited (DTTIPL) is intended to provide general information on a particular subject or subjects and is not an exhaustive treatment of such subject(s). None of DTTIPL, Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the "Deloitte Network") is, by means of this material, rendering professional advice or services. The information is not intended to be relied upon as the sole basis for any decision which may affect you or your business. Before making any decision or taking any action that might affect your personal finances or business, you should consult a qualified professional adviser.

No entity in the Deloitte Network shall be responsible for any loss whatsoever sustained by any person who relies on this material.

©2014 Deloitte Touche Tohmatsu India Private Limited. Member of Deloitte Touche Tohmatsu Limited