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INDIAN LOGISTICS INDUSTRY: GAINING MOMENTUM

A REPORT ON THE PERFORMANCE AND EMERGING TRENDS IN THE INDIAN LOGISTICS INDUSTRY

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A REPORT ON THE PERFORMANCE AND EMERGING TRENDS IN THE INDIAN LOGISTICS INDUSTRY

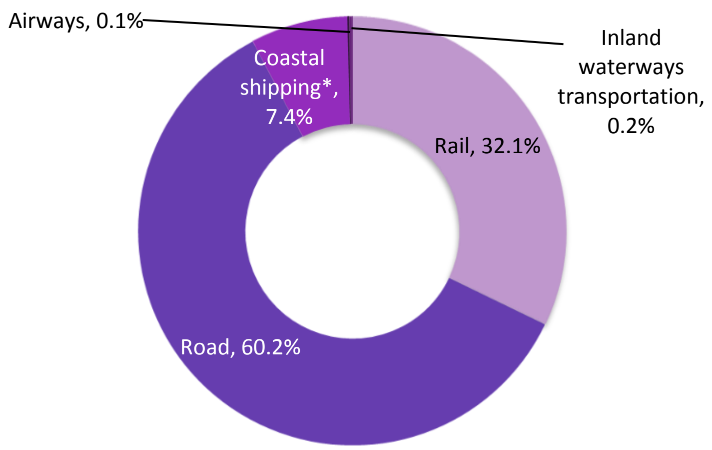
1. OVERVIEW OF INDIAN LOGISTICS INDUSTRY

The Indian logistics industry was valued at an estimated US$ 130 billion in 2012-13. It has grown at a CAGR of over 16 per cent over the last five years. The industry comprises the following main segments:

- Freight and passenger transportation via road, rail, air and water
- Warehousing and cold-storage

The contribution from the movement of goods including freight transportation and storage is about 90 per cent. Aggregate freight traffic is estimated at about 2-2.3 trillion tonne kilometres. Road dominates the mode of freight transport mix and constitutes about 60 per cent of the total freight traffic. Rail and coastal shipping account for about 32 per cent and 7 per cent, respectively, while the share of inland waterways transportation and air is less than 1 per cent each.

Figure 1
Total freight transport modal mix



Source: IMaCS Analysis,
***Major ports**

Warehousing comprises industrial and agricultural storage. Of the total warehousing space of about 1,800 million sq ft, the industrial and agricultural segments constitute about 86 per cent and 14 per cent, respectively. Government organisations including Food Corporation of India, Central Warehousing Corporation and the state warehousing corporations account for about two-thirds of the agricultural warehousing segment[1]. Warehousing also includes cold storage, comprising over 5,300 units; most of which are concentrated in the states of Uttar Pradesh, Punjab and West Bengal. According to the Ministry of Agriculture, at present, the cold chain capacity is about 9 million tonnes.

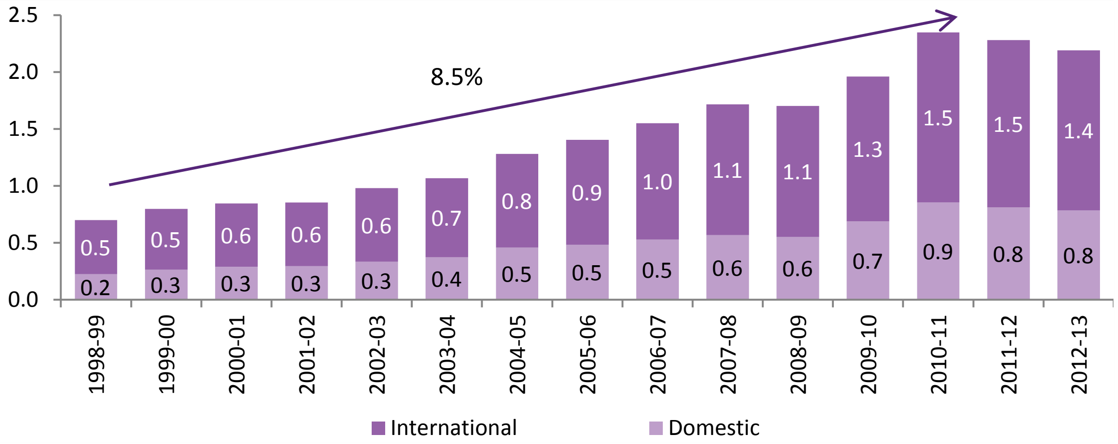
[1]**Cargo Talk, September 2011**

2. FREIGHT MOVEMENT

Air transport

Air cargo volume grew at a compound annual growth rate (CAGR) of about 8.5 per cent from 0.7 MMT in 1998-99 to 2.2 MMT in 2012-13. International traffic accounts for about 64 per cent of the total air cargo traffic and domestic cargo accounts for the remaining 36 per cent. Between 1998-99 and 2012-13, domestic and international cargos have grown at a CAGR of 10.4 per cent and 7.6 per cent, respectively. Expanding cargo-handling infrastructure at airports, demand for speedy delivery, greater trade and commerce and increase in the number of flights operating – are some of the key reasons for this growth.

Figure 2
Air freight in India (MMT)



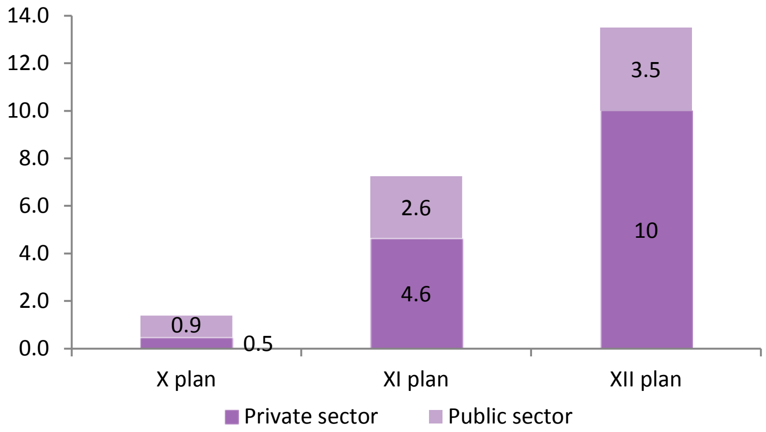
Source: CMIE; IMaCS Analysis

Future growth in international cargo traffic is expected to be fuelled by trade agreements, especially, with the Asia-Pacific region, and trade in sectors like electronics, garments and pharmaceuticals. Growth in domestic cargo traffic is expected to be led by expansion of industrial activity beyond existing centres. Investments in airport and logistics infrastructure are also expected to drive demand of air cargo.

Proposed investments and private sector participation: For developing airport infrastructure, the government has proposed an investment of US$ 13.5 billion[2] in the Twelfth Five-Year Plan period, which is almost double of that proposed in the Eleventh Five-Year Plan. This would include building and expanding cargo terminals. The private sector's contribution is expected to be 74.1 per cent.

[2]Conversion factor: US$ 1 = INR 50

Figure 3
Proposed investments in airport infrastructure (US$ billion)



Source: Planning Commission of India

Some of the projects included in the investment plan are as follows:

- Ongoing modernisation of the metro-airports - Kolkata and Chennai.
- Modernisation of 35 non-metro airports, of which, 20 are complete and 15 are ongoing.
- Development of air-freight stations (AFS)

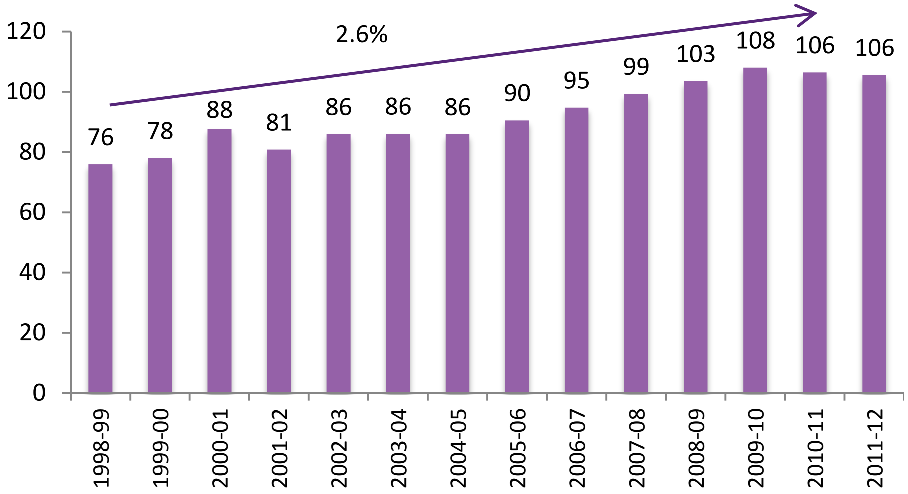
For example, Container Corporation of India and Cargo Service Centre India Private Limited have announced plans to set up an AFS at Mulund in Mumbai. Container Corporation of India also plans to develop AFSs in Ahmedabad, Pune and other major locations.

Water transport

Shipping routes through coasts and inland waterways are primarily used for transportation of bulk freight. India possesses about 14,400 km of inland waterways. Over 3,600 km are navigable by large vessels, of which about 55 per cent is being used. To exploit the potential of this mode of transport, six national waterways have been declared; three of which are operational while three are being developed. In 2012-13, the estimated cargo movement via inland waterways was at around 89 million tonnes.

The coastal-cargo traffic at major Indian ports has grown at a CAGR of about 2.6 per cent from 76 MMT in 1998-99 to 106 MMT in 2011-12. The freight via water is expected to grow further in the light of the Maritime Agenda 2010-2020, increasing contribution from non-major ports and growing focus on ports on the east coast.

Figure 4
Coastal cargo at major Indian ports (MMT)



Source: CMIE; IMaCS Analysis

Overall cargo traffic has increased at non-major ports at a CAGR of about 19 per cent in the 14 years since 1998, indicating strong growth potential for these ports in the coming years; especially as the infrastructure improves.

Proposed investments and private sector participation: In January 2011, the Government of India launched the Maritime Agenda, 2010-2020, to increase the total port capacity. The salient features of the agenda are as follows:

- It envisages an investment of US$ 57.4 billion in a phased manner to create a total port capacity of around 3,200 MMT. The non-major and major ports are expected to contribute 61 per cent and 29 per cent of the proposed investment, respectively.
- Capacity expansion by way of construction of new berths and jetties is likely to account for 65 per cent of the total outlay. Other support works such as connectivity works, channel deepening and equipment are likely to account for 35 per cent of the total outlay.
- In particular, the government aims to create an additional cargo handling capacity of around 900 MMT at ports along the East coast through an investment of about US$ 22.5 billion.
- The funding of the projects under Maritime Agenda is to come, largely, from the private sector. The private sector is expected to contribute 66 per cent and 98 per cent of the total investments in major and non-major ports, respectively.
- The number of scheduled public-private partnership projects (PPP) in the maritime sector has significantly gone up from around 12 in the year 2008-09 to 29 in 2012-13.
    - The projects in the construction phase include container terminal expansion and development of thermal coal and copper concentrate handling facility at V.O. Chidambaranar Port.

- Some projects in pipeline include container terminal expansion, modernisation of iron ore handling complex and installation of mechanised handling facilities at Vishakhapatnam port.

Rail transport

Rail freight segment contributes over 60 per cent to the total rail revenue. Freight movement via railways has grown at a CAGR of around 5.1 per cent from 794 million tonnes in 2007-08 to 969 million tonnes in 2011-12. As per the Railway Budget 2013-14, the government targeted freight volume of 1,047 million tonnes in 2013-14.

Table 1
Rail freight traffic

Year	Tonnes (million)	Tonne kilometres* (million)	Lead (km)
2007-08	794	521,371	657
2008-09	833	551,448	662
2009-10	888	600,548	676
2010-11	922	625,723	679
2011-12	969	667,607	689

Source: Ministry of Railways; IMaCS Analysis
***Tonne-kilometre represents transport of one tonne of goods over a kilometre.**
***Lead refers to the average distance to which freight was transported.**

Development of dedicated rail freight corridors: Dedicated Freight Corridor Corporation of India Limited (DFCCIL) was founded in 2006 by the Government of India to undertake planning, development and operation of the dedicated freight corridors to lower unit cost of transportation to urban centres. The project involves the construction of two corridors in the west and east, spanning a total length of about 3,300 km. Post the completion of the DFC project in 2016-17, DFCCIL expects freight traffic via the DFCs to increase from 140 MMT in 2016-17 to 182 MMT in 2021-22.

Private sector participation: The government has recently launched the 'Policy for participative models in rail connectivity and capacity augmentation projects', to attract private capital for accelerated construction of rail infrastructure. As per the new policy, private players are allowed to construct and own private rail lines connecting ports, large mines, logistics parks or other similar industries or cluster of industries, which handle goods traffic for multiple consignors or consignees.

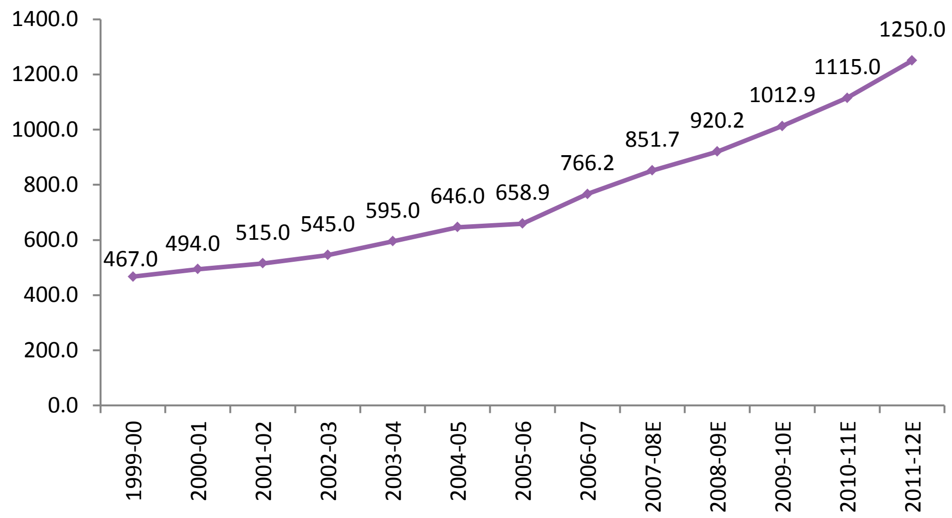
As per the Rail Budget 2013, US$ 20 billion of the overall US$ 104 billion proposed investment in the 12th Five Year Plan would be mobilised through the PPP route. Private sector participation is likely to result in additional transport capacity of railways, and reduced traffic congestion at ports and roads.

Roads transport

Unlike other modes of transport, roads address the demand for goods to cities as well as remote areas of the country. Since 1999-2000, road freight has increased from 467 billion tonne kilometres (BTKM) to

1,250 BTKM in 2011-12, at a CAGR of 8.6 per cent. It is estimated to have grown to 1,315 BTKM for 2012-13. According to the Ministry of Road Transport and Highways, road freight is expected to reach 1,835 BTKMs by 2016-17.

Figure 5
Freight movement by road transport (BTKM)



Source: Road Transport Year Book, Ministry of Road Transport and Highways; IMaCS Analysis
E-estimated

Development of national highways: National highways account for more than 40 per cent of the total road traffic. In the 12th Five-Year Plan period, the Government of India has set a target to construct 36,632 km of national highways in the period 2012-17, i.e., 2.65 times the target set in the previous plan period. Launched in 1998, the National Highways Development Programme (NHDP) aims to develop 50,000 km of National Highways by 2015 in seven phases and with an investment of US$ 600 billion. Once completed, this is expected to further fuel the demand for road transport.

Table 2
Important projects of National Highways Development Programme

Phase 1	Golden Quadrilateral (GQ) - connecting New Delhi, Kolkata, Mumbai and Chennai
Phase 2	North South East West (NSEW) corridor connecting Srinagar, Kanyakumari, Porbandar and Silchar
Phase 3	Four laning of the two laned roads connecting state capitals and important tier-II and tier-III cities to the Golden Quadrilateral and NSEW corridor
Phase 4	Improvement of certain national highways
Phase 5	Six laning of existing four-laned national highways
Phase 6	Development of expressways
Phase 7	Ring roads, by-passes and flyovers

Source: NHAI

The GQ is complete, while NSEW is close to completion. Other projects are either at the planning or implementation stage.

Private sector participation: The Government of India targets to secure 33 per cent of the funding for the total investments in road infrastructure from private players. It has announced several incentives to attract private players; including provision of 100 per cent tax exemptions in any consecutive 10 years out of 20 years after commissioning of the project, and duty free imports of high-capacity construction plant and equipment.

Many states in India, including Gujarat, Rajasthan, Madhya Pradesh and Maharashtra, have started awarding state highway contracts on a build-operate-transfer basis to private entities. Under this agreement, the state government delegates the work of 'design, build and operate' of state highways to a private sector entity for a certain period. Post the end of the period, the facility is transferred to the state government.

Some of the recent road PPP projects approved by National Highways Authority of India include:
- Four laning of Rohtak-Hissar section of NH-10 in Haryana
- Four laning of Bhavnagar-Veraval section of NH-8E in Gujarat
- Six laning of Chakeri-Allahabad section of NH-2 in Uttar Pradesh
- Four laning of Khed-Sinnar section of NH-50 in Maharashtra

Warehousing and cold storage

The warehousing market is highly fragmented with organised players holding only about 8 per cent of the total warehousing space in India; which indicates tremendous opportunity. Demand for modern warehouses is on the increase. They are equipped with tall designs, modular racking systems, palletisation and use of automation systems.

Establishment of free-trade warehousing zones: As per the government's initiative of setting up free-trade warehousing zones (FTWZ), several free trade zones have been established across the country with the objective of facilitating trade of goods and services in free currency. FTWZs offer a single-window solution for multiple logistics activities, with particular focus on trade flow. Several new FTWZs are being set up by logistics players. For example, in 2012, DHL announced plans to set up three new FTWZs.

At present, India has a cold chain capacity of around 9 million tonnes. The demand for additional cold storage capacity is expected to be about 15 million tonnes by the end of 12^{th} Five-Year Plan period. It is expected that with the opening up of foreign direct investment (FDI) in multi-brand retail, organised food retailers would demand significant enhancements in cold chain and distribution infrastructure.

In order to encourage investments in cold storage infrastructure, the government has announced several policy measures, such as granting accelerated depreciation benefits for imported equipment and greater public-private partnerships. The National Centre for Cold Chain Development has been established to strengthen the cold storage infrastructure. To meet higher demand, several logistics companies have set up subsidiaries in the cold chain management business. Some examples of the same are as follows:

- Container Corporation of India has a 100 per cent subsidiary, Fresh and Healthy Enterprises (FHEL), which is engaged in cold chain management. Its clients include Walmart, More, Big Bazaar, Mother Dairy and Big Apple.
- Gateway Distriparks Limited entered the cold chain logistics business through its subsidiary, Snowman Frozen Foods Limited, as a joint venture with Mitsubishi Group of Japan.

3. LOGISTICS INDUSTRY GROWTH DRIVERS

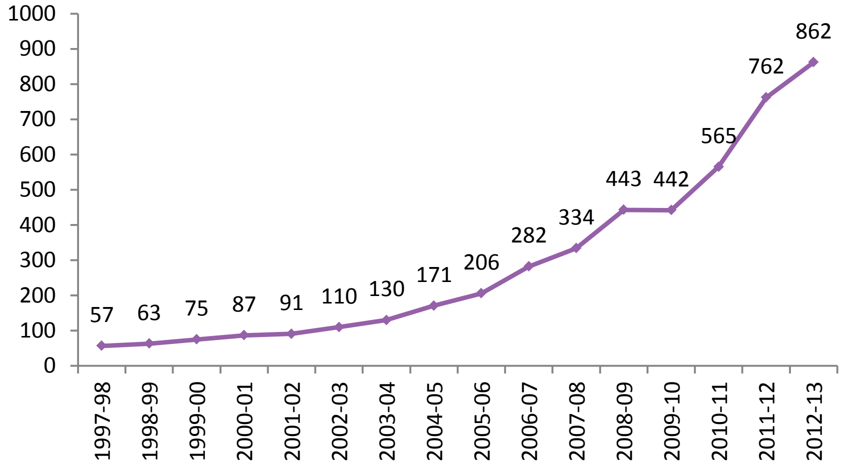
Rapid industrial growth: Rapid growth in industries such as automobiles, pharmaceuticals, fast-moving consumer goods (FMCG) and retail has significantly increased the demand for movement of consumer and capital goods across the country, from entry ports to manufacturing or distribution locations or from manufacturers and distributors to consumers and exit ports.

The volume of freight traffic is positively related to the GDP of the country. Therefore, as the GDP increases, the volume goods' movement is expected to increase through all modes. During the period from 2007-2012, the agriculture and manufacturing GDP have increased from US$ 263.6 billion to US$ 290.7 billion at constant prices. The corresponding increase in freight traffic was from 1.3 trillion tonne kilometres (TTK) to 2.1 TTK.

Globalisation: With the growing integration of India's economy with the world, the country's total trade has grown at a CAGR of about 20 per cent from US$ 57 billion in 1997-98 to US$ 862 billion in 2012-13. The initiative to construct a trilateral highway connecting India, Myanmar and Thailand represents an important step in the establishment of connectivity between India and Southeast Asian countries. The highway is expected to be operational in the year 2015-16 and is likely to boost trade ties of India with other countries.

The increase in international trade has effected corresponding growth in cross-border freight traffic, thereby, adding to demand for logistics services.

Figure 6
India's total trade (US$ billion)



Source: Directorate General of Foreign Trade; IMaCS analysis

Government initiatives: The Government of India has initiated several policy measures and programmes to attract investments in developing the logistics infrastructure of the country. Some of the key reforms undertaken by the Government of India include the following:

- FDI regulations: The government allows 100 per cent FDI under the automatic route for all logistics services, except air cargo and courier services. For air transport services including air cargo services, the limit was increased from 49 per cent to 74 per cent in 2008. Also, FDI of up to 100 per cent is permitted for courier services, subject to Foreign Investment Promotion Board (FIPB) approval.
- Greater investments in development of logistics infrastructure: The government has significantly increased the investment allocated for the development of logistics infrastructure including ports, airports, national highways, logistics parks, freight stations and corridors.
- Private sector partnerships: Several measures have been undertaken by the Government of India to encourage private sector participation in the logistics industry across all modes. These measures include increasing targeted contributions of private players in the investments set aside for the development of logistics infrastructure, tax exemptions and duty free imports. Apart from speeding up capacity creation, this is also aimed towards incorporating latest technologies and better management practices.

Streamlining indirect tax structure: The proposed introduction of the Goods and Services Tax (GST) is expected to significantly bring down the total costs of the logistics industry. At present, most companies have set up multiple small warehouses of size 4,000-10,000 sq ft across the country to save taxes on inter-state movement. But with the implementation of GST, the need to have several small warehouses is likely to be mitigated in favour of larger and consolidated warehouses at strategic locations.

As per the estimates of Maritime Gateway, an Indian publishing house, if tax avoidance is not a factor for deciding on the distribution network, the total warehouse space can be reduced by 20-50 per cent. Also, scale economies start to positively affect warehouses only when they are larger than 30,000 sq ft. Other cost benefits would include lower IT spend on ERP linkages, cost effective routing and loading, lower inventory requirements and lower material handling and compliance costs.

Outsourcing of logistics: The logistics industry stands to benefit from the increasing trend of outsourcing the logistics and warehousing function to third party service providers. This function was traditionally performed by the organisations themselves. However, corporate entities recognise the benefits associated in engaging a third-party logistics provider for integration of information flow, material handling, production, packaging, inventory, transportation, warehousing and often security. This allows corporate entities to concentrate on their core business and also avail of significant discounts through outsourcing.

According to ASSOCHAM, around 55 per cent of Indian companies outsourced logistic services such supply chain management and warehousing in 2009, as compared to about 10-15 per cent in 1999. As per the industry estimates, the increasing trend of outsourcing is expected to result in the growth of third-party logistics market at a CAGR of about 22 per cent, during 2012-15.

4. KEY TRENDS IN LOGISTICS INDUSTRY

Entry of global players: Several global players view the Indian logistics market favourably and have announced intentions to increase their capacity of transporting goods from/to Indian markets. Several large global logistics companies have entered India by the way of mergers with or acquisitions of Indian logistics companies and joint venture agreements. For example:

- In 2013, FedEx Express acquired Mumbai-based integrated logistics service provider AFL.
- In 2012, GATI signed an agreement with Kintesu World Express, a Japan-based air and ocean freight services provider. As per the agreement, GATI transferred its express distribution and supply chain business to the new joint venture under the name GATI-Kintesu World Express. GATI holds 70 per cent stake and Kintesu invested US$ 53.54 million for 30 per cent stake in the venture.
- TNT acquired Mumbai-based Speedage Express Cargo Service for about US$ 40 million in 2006.
- DHL acquired 68 per cent stake in Blue Dart Express Limited for US$ 147.04 million in 2004.

Increasing number of multi-modal logistics players: The demand for multi-modal transport services by the end users is increasing, because it results in the reduction of overall transportation costs and quicker movement of cargo. It also requires less documentation. Several Indian logistics companies have formed joint ventures with other global and local players so as to provide multi-modal logistics services extending to air, rail, road and water. For example, Container Corporation of India has around 12 strategic joint ventures with companies including Maersk, TCI, Halcon, DPI, APM, Gateway Rail and Allcargo.

Increased PE investments: The Indian logistics market has attracted investments from large global and Indian private equity (PE) firms. Some of the deals are as follows:

- Indian Equity Partners struck deals with two logistics players. It took over the domestic road operations of TNT Express in India in December 2011 and acquired a minority stake in Gwalior-based Swastik Roadlines Private Limited, a food cargo supply chain service provider, in December 2010.

- In April 2011, Warburg Pincus invested US$ 100 million in Chennai-based Continental Warehousing Corporation Limited, a subsidiary of the NDR Group.
- Some of the other deals include a US$ 10 million investment by Ashmore Alchemy Investment Advisors in Siesta Logistics Corporation and Blackstone's investment of US$ 75 million in Allcargo Logistics.

5. COMPETITIVE LANDSCAPE

The Indian logistics Industry is highly fragmented. The top-10 listed players have only about 2 per cent share in the overall market[3]. The top three companies in terms of sales turnover are Container Corporation of India, Transport Corporation of India and Blue Dart Express.

[3]CONNECT, Magazine, April-June 2011

Table 3
Financial summary of listed logistics players in India (2011-12)

Name	Services	Sales US$ million	Sales growth on y-o-y basis (per cent)	Operating profit US$ million	Net profit US$ million	Net profit margin (per cent)
Container Corporation of India	Container haulage and container freight stations (CFS)	812.19	6.1	204.75	175.58	21.6
Allcargo Logistics#	Multi-modal transport operator (MTO) and CFS	215.89	-	61.80	36.81	17.1
Gateway Distriparks	Container haulage and CFS	45.20	23.5	25.19	16.40	36.3
Aegis Logistics	Logistics services to the oil, gas and chemical industries	56.70	9.8	12.47	8.21	14.5
Transport Corporation of India	Road freight and express logistics	365.59	4.0	28.91	10.37	2.8
Arshiya International	Container rail	118.53	30.8	25.73	9.50	8.0
GATI*	Express logistics	139.49	-22.5	13.19	14.40	10.3
Blue Dart Express*	Express logistics	298.40	29.8	35.72	24.56	8.2
Shreyas Shipping and Logistics	Container shipping	33.54	32.2	3.43	1.08	3.2
SICAL Logistics	MTO, bulk and container cargo	100.22	-6.8	9.40	2.66	2.7

Source: Company annual reports; company websites; IMaCS Analysis
#15 months starting January 2011 to March 2012; *Figures for GATI and Blue Dart Express are for the 12-month period from July 2011 to June 2012 and January 2010 to December 2011, respectively

6. CONCLUSION

The Indian logistics industry was valued at an estimated US$ 130 billion in 2012-13. It has grown at a CAGR of over 16 per cent over the last five years. The industry comprises freight and passenger transportation via road, rail, air and water, as well as warehousing and cold-storage.

Air cargo volume grew at a CAGR of about 8.5 per cent from 1998-99 to 2012-13. Future growth is expected to be fuelled by trade agreements, expansion of industrial activity beyond existing centres and investments in airport infrastructure. The government has doubled the proposed investment in airport infrastructure in the Twelfth Five-Year Plan period, as compared to the Eleventh Five-Year Plan. The private sector's contribution is expected to be over 74 per cent.

The coastal-cargo traffic at major Indian ports has grown at a CAGR of about 2.6 per cent from 1998-99 to 2011-12. The freight via water is expected to grow further in the light of the Maritime Agenda 2010-2020. The Agenda aims at increasing the port capacity with increased focus on non-major ports and ports on the east coast. The funding of the projects under Maritime Agenda is also likely to be primarily come from the private sector.

Freight movement via railways has grown at a CAGR of around 5.1 per cent from 2007-08 to 2011-12. The development of dedicated rail freight corridors is likely to boost freight traffic. The government has also recently allowed private players to construct and own rail lines to transfer goods.

The road freight has grown at a CAGR of 8.6 per cent from 1999-2000 to 2011-12. The government's National Highways Development Programme aims to develop 50,000 km of National Highways by 2015. Once completed, this is expected to further fuel the demand of road transport. The government targets to secure 33 per cent of the funding from private players. It has also announced several incentives to attract private players to set up free-trade warehousing zones and cold storage infrastructure.

These measures are expected to drive growth in the logistics industry. The key growth drivers are: rapid growth in industries such as automobile, pharmaceuticals, fast-moving consumer goods (FMCG) and retail; increase in trade because of integration of India's economy with world; government initiatives such as FDI regulations, private sector participation and development of logistics infrastructure and increasing trend of outsourcing logistics to third party service providers. In the coming years, the key trends that are likely to affect the industry positively are entry of global players, increase in number of multi-modal logistics service providers, and greater investments.

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