

Sustainable Transport: Greener route for navigating India Inc.'s logistics

Aparna Khandelwal
Sustainability Outlook

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Logistics in India: High Cost-to-Country (CTC)

- Logistics sector costs accounted for **14% of India's GDP** and amounted to USD244 billion in 2013-14
 - USA – 9% of GDP
 - Japan - 11% of GDP
 - France -12% of GDP
 - Korea -12% of GDP
- India ranks 54th (out of 160 countries) on the World Bank Logistics Performance Index 2014 with a LPI score of 3.08 (Rank 1 Germany with LPI score of 4.12).
- Indian businesses spend anywhere from 3-5% of their sales in logistics costs
- Existing transport infrastructure in the country is plagued with excessive capacity utilization, poor quality, multiplicity of taxes, lack of use of multi-modal logistics solutions etc.



Inadequate transport infrastructure in the country – Key Gap

Road	Rail	Water
<ul style="list-style-type: none">• Poor road quality: Only 53% of total roads paved, highways constitute only 2% of total road network but handle 40% of the national road freight traffic• Reduced speed due to multiple check points• Old fleet of trucks (poor maintenance, low fuel emission standards, lack of driver training)• Large number of small and unorganised players, with no industry consolidation and intense competition (75% of trucking firms own small fleets of less than 5 trucks and only 11% operate more than 20 trucks).	<ul style="list-style-type: none">• Low speeds and lack of Dedicated Freight Corridors (DFCs)• Coal carrying routes operating beyond 100% capacity utilization (utilization beyond 80% is considered congested)• Lack of reliability and traceability of goods - Safety of goods transported not assured• Poor quality of operations and customer orientation	<ul style="list-style-type: none">• Inadequate drafts and port capacities (larger vessels having potential to cut substantial cost, are unable to call at Indian ports due to limited draft)• Poor rail and road connectivity to ports (including poor hinterland connectivity)• Time consuming clearance procedures at ports and slow vessel TAT (average pre-berthing detention (PBD) of vessels was 2.05 days and average TAT was 4.56 days in 2011-12)• Poor port and land-side infrastructure and outdated equipment• Indian Waterways not well developed well.

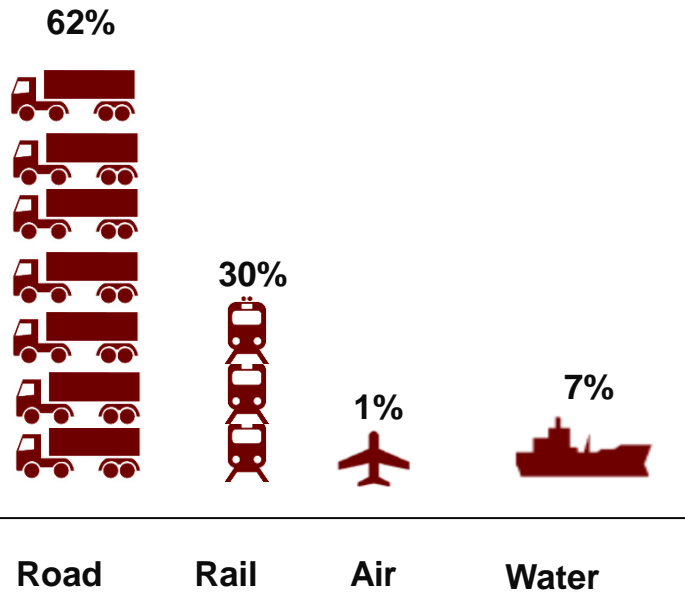
Financial and environmental cost comparison of different modes of freight transport in India

	Road	Rail	Water
Equivalent single unit carrying capacity	60 trucks	15 rail wagons	1 barge
Cost (Rs per ton-km)	Rs 2.58	Rs.1.41	Rs. 1.06
Emissions per ton per km (gm of CO₂ eq)	84	28	15
Fuel Consumption (gm/ton-km)	31.3	8.8	4.8

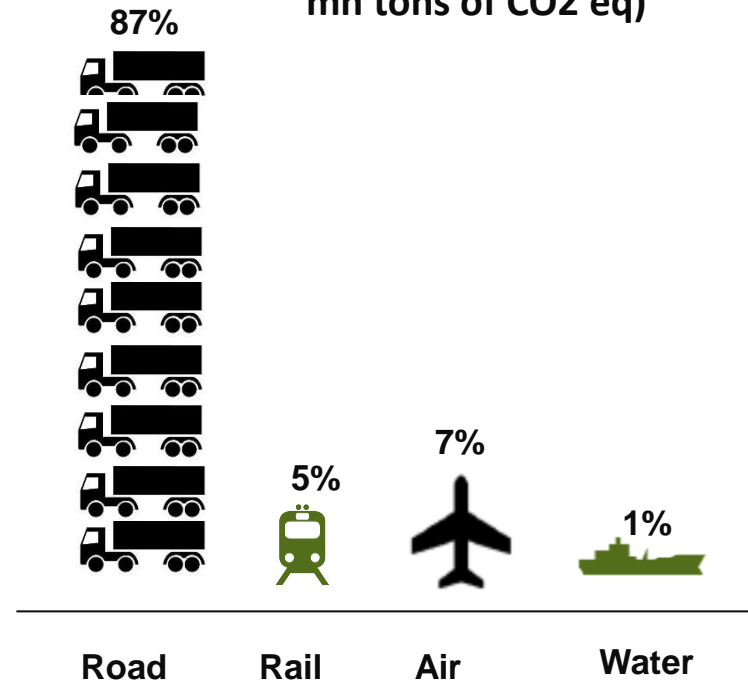


Despite higher cost and higher emissions, India's freight mix is skewed towards road

Modal mix of India's freight sector



Share of GHG emissions (total transport sector emissions – 142 mn tons of CO2 eq)

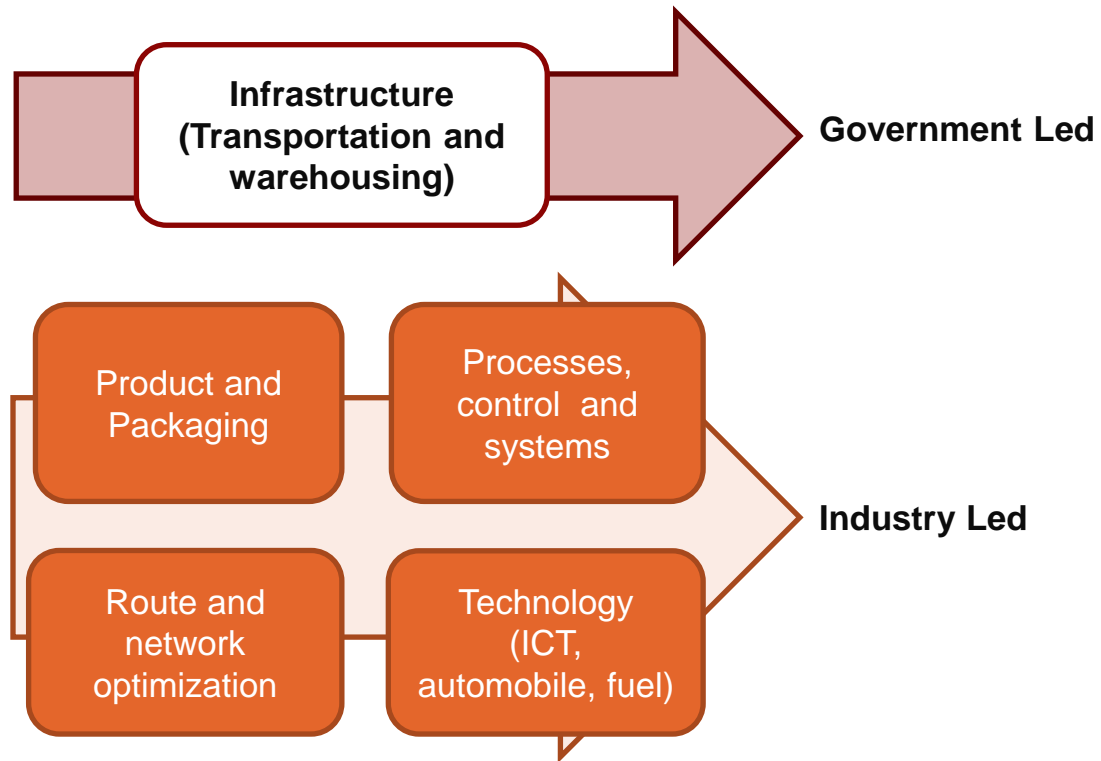


Need to move to **sustainable logistics** to meet the **400%** expected increase in freight transportation demand

- Energy demand is expected to increase by a factor of 4 over the next 20 years; subsequently,
- Domestic coal production is expected to increase by about **2.5 times** thereby tremendously increasing the demand for transportation.
- Freight transport demand is expected to increase 400% in the next 20 years, from **2000btkm in 2011-12 to 10,500-13,000 btkm in 2032**



How will the shift happen?



How will the shift happen?

- Government's Investment Plans in transport, i.e. railways, roads and bridges, and other transport, is expected to increase from Rs 2.2 trillion (US \$45 billion) in 2011-12 to:
 - Rs 3.8 trillion (US \$70 billion) during the 12th Plan
 - Rs 6.3 trillion (US \$110 billion) in the 13th Plan
 - Rs 14 trillion (US \$250 billion) in the 15th Plan period

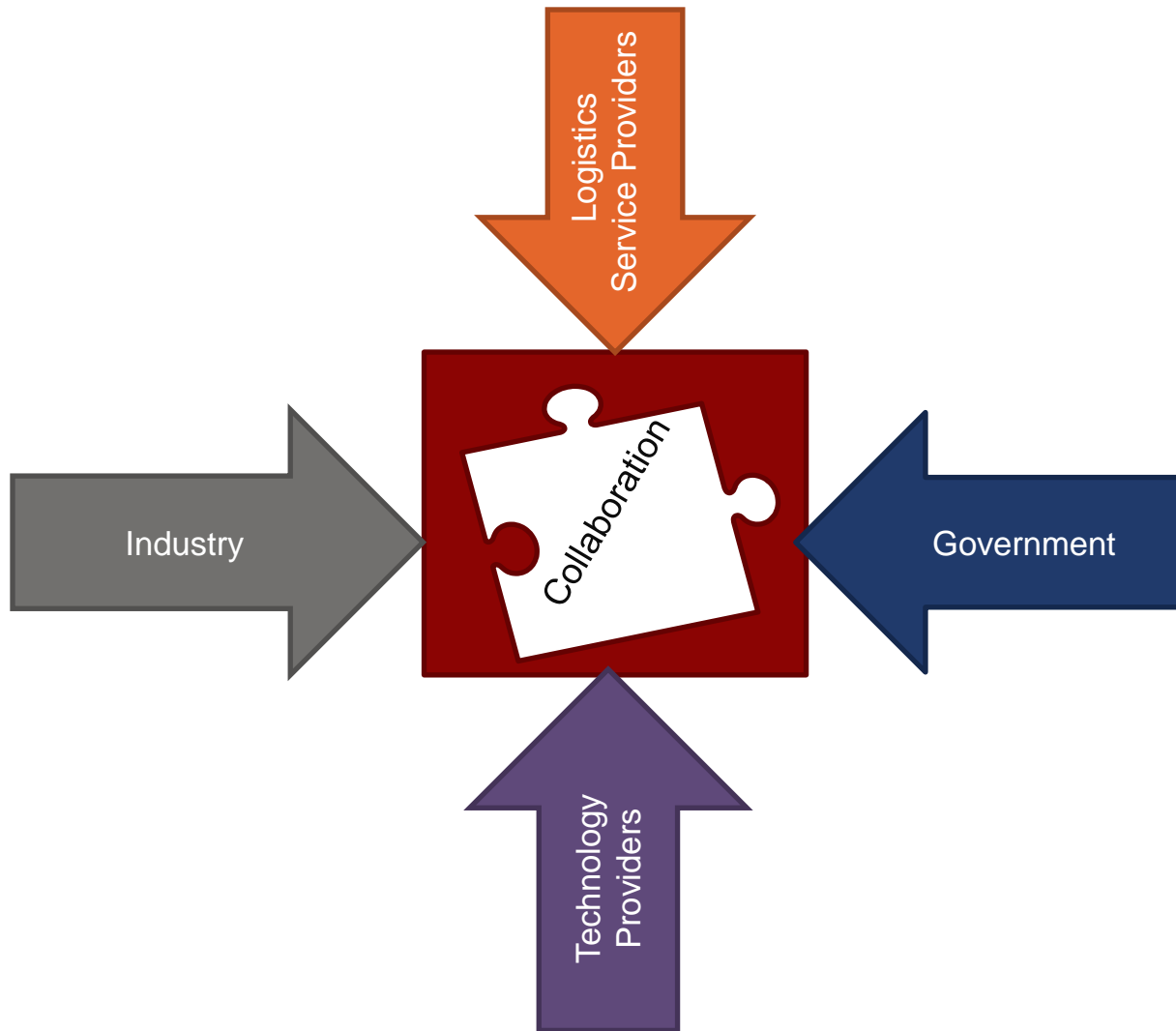
Not clear as to how the investment is being prioritized to enable the Sustainable Logistics progression the country needs to make

- Private sector has begun to undertake various initiatives to move towards sustainable logistics

What challenges are plaguing the industry acting as an impediment for the country to truly embark on the path to Sustainable Logistics



Is collaboration the missing link?



Thank You



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