



Operational efficiency of freight transportation by road in India *(Ready Reckoner)*

2014-15 | 3RD EDITION

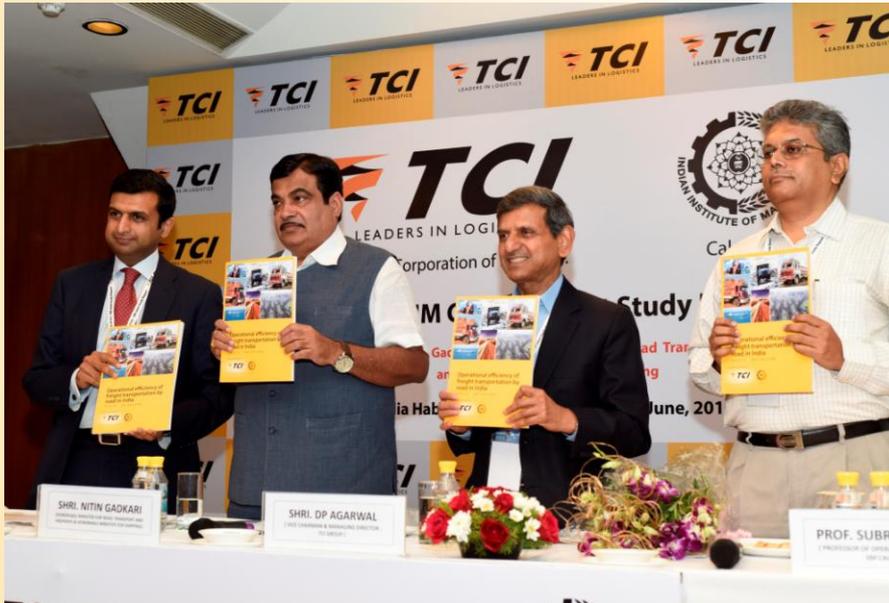


Commissioned by Transport Corporation of India (TCI)



- **Launched by : Shri. Nitin Gadkari , Honorable Minister of Road Transport & Highways and Shipping**

- Venue : India Habitat Centre, New Delhi
- Date & Time : 7th June, 11.00 am



Key Findings of Report



Previous Reports Vs. Current Report

Total Number of Routes Surveyed

2008-09

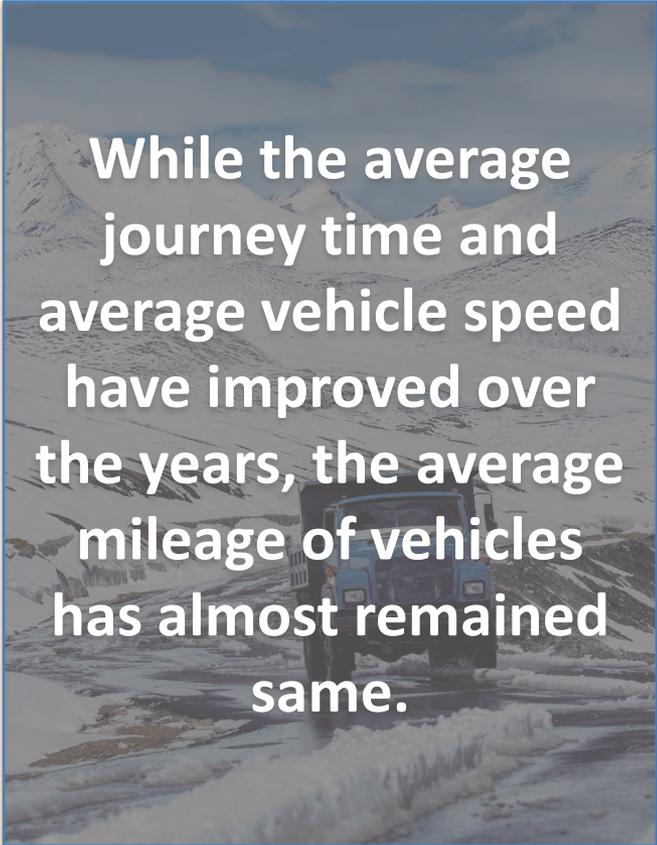
10 Routes

2011-12

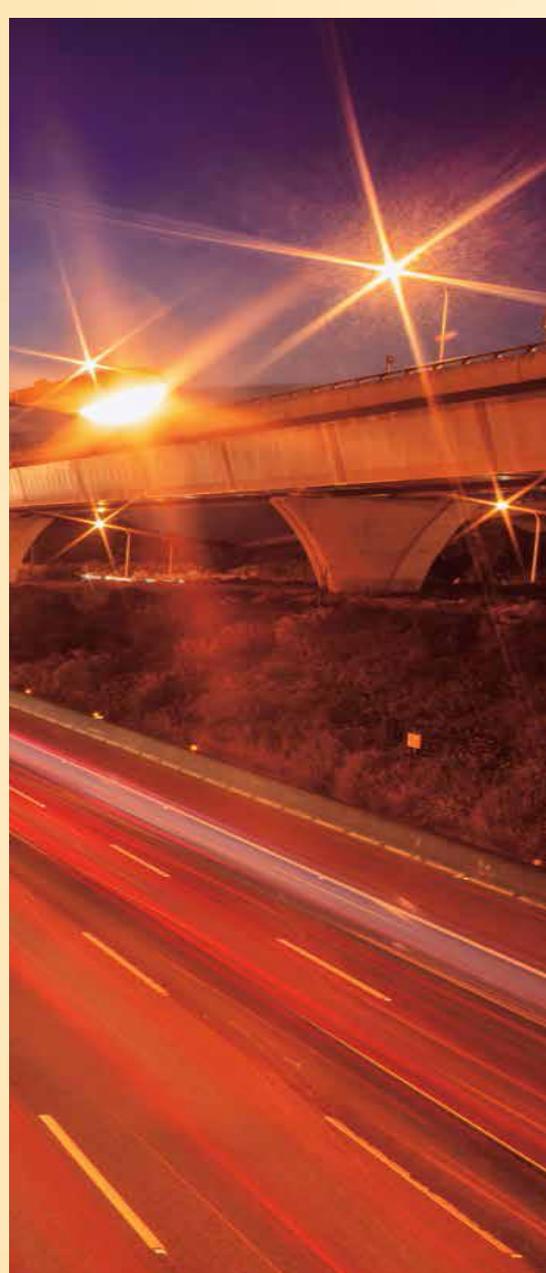
17 Routes

2014-15

28 Routes



While the average journey time and average vehicle speed have improved over the years, the average mileage of vehicles has almost remained same.



Routes Surveyed

1	Delhi	Bangalore
2	Delhi	Mumbai
3	Delhi	Chennai
4	Delhi	Kolkata
5	Mumbai	Chennai
6	Mumbai	Kolkata
7	Chennai	Kolkata
8	Indore	Guwahati
9	Pune	Hyderabad
10	Ahmedabad	Coimbatore
11	Ahmedabad	Bangalore
12	Ahmedabad	Delhi
13	Bangalore	Mumbai
14	Guwahati	Delhi
15	Hyderabad	Delhi
16	Kolkata	Bangalore
17	Nagpur	Delhi
18	Nagpur	Bangalore
19	Nagpur	Pune
20	Pune	Delhi
21	Delhi	Kanpur
22	Delhi	Chandigarh
23	Pune	Chennai
24	Raipur	Delhi
25	Kolkata	Guwahati
26	Bangalore	Ernakulam
27	Ahmedabad	Salem
28	Indore	Chennai

2008-09

2011-12

2014-15

**13 Routes have
been checked for
Multimodal as
well..**

Key Comparisons of 28 major routes

Parameter	Average speed (kmph)	Average mileage (kmpl)	Average delay per km (Hrs/km)	Average stoppage expenses (Rs./tonne-km)	Average trip expenses (Rs./tonne-km)	Average freight rate (Rs./tonne-km)
Route						
Delhi-Bangalore	35.93	4.03	0.0032	0.35	1.45	1.94
Delhi-Mumbai	33.56	4.03	0.0020	0.37	1.42	2.01
Delhi-Chennai	45	4.03	0.0029	0.29	1.37	1.62
Delhi-Kolkata	21.10	3.95	0.0046	0.33	1.46	2.11
Mumbai-Chennai	26.30	4.03	0.0023	0.25	1.36	2.28
Mumbai-Kolkata	20.79	4.03	0.0027	0.17	1.34	2.32
Chennai-Kolkata	37.10	4.03	0.0028	0.18	1.22	2.24
Indore-Guwahati	20.56	4.035	0.0059	0.24	1.48	2.26
Pune-Hyderabad	23.70	4.03	0.0016	0.16	1.38	2.43
Ahmedabad-Coimbatore	31.20	4.03	0.0013	0.13	1.32	2.38
Ahmedabad-Bangalore	39.28	4.03	0.0031	0.25	1.41	2.27
Ahmedabad-Delhi	34.09	4.03	0.0031	0.31	1.48	2.67
Bangalore-Mumbai	37.15	4.04	0.0021	0.29	1.45	2.53
Guwahati-Delhi	31.15	4.03	0.0068	0.35	1.43	2.20

Key Comparisons of 28 major routes

Parameter	Average speed (kmph)	Average mileage (kmpl)	Average delay per km (Hrs/km)	Average stoppage expenses (Rs./tonne-km)	Average trip expenses (Rs./tonne-km)	Average freight rate (Rs./tonne-km)
Hyderabad-Delhi	31.95	4.03	0.0021	0.20	1.29	1.98
Kolkata-Bangalore	27.07	4.03	0.0038	0.26	1.47	1.82
Nagpur-Delhi	29.82	4.03	0.0011	0.20	1.29	2.07
Nagpur-Bangalore	34.93	4.03	0.0032	0.38	1.56	1.98
Nagpur-Pune	37.69	4.03	0.0020	0.10	1.91	2.65
Delhi-Pune	43.09	4.03	0.0021	0.38	1.48	2.15
Delhi-Kanpur	32.48	4.03	0.0007	0.21	2.49	4.24
Delhi-Chandigarh	41.07	4.03	0.0010	0.48	2.20	2.68
Pune-Chennai	41.50	4.05	0.0016	0.24	1.84	2.49
Delhi-Raipur	27.00	4.00	0.0035	0.34	1.25	2.88
Kolkata-Guwahati	11.62	4.00	0.0169	0.18	1.27	3.38
Bangalore-Ernakulam	17.42	4.00	0.0020	0.29	2.00	4.19
Ahmedabad-Salem	40.05	4.50	0.0020	0.35	2.05	3.10
Indore-Chennai	40.00	4.50	0.0092	0.45	2.01	3.31

**Wastage due
to DELAYS on
the roads**



\$ 14.7 Bn

The national economic saving arising out of enhanced fuel efficiency across 9.6 million goods vehicles

\$ 6.6 Bn

India's annual cost due to transportation delays.



In Total Trip Cost On-Road expenses increased

From
28% in 2012-13
to
33% in 2014-15.



Road freight volumes are expected to increase

From
1315 BTKM in 2012-13
to
1553 BTKM in 2014-15.



Saving of Rs. 1,00,000

annually by a goods truck, if Re. 1 can be saved due to increased mileage and if the average distance travelled by a goods vehicle in a year 1,00,000 km.

113%
increase
in average stoppage
expenses

Rs. 167/Hr.
the cost of delay, If the
shipper's inventory
carrying cost due to
delay was included



30% of India's freight transport is carried by Railways.

On an average
30% less cost by Railways

Compared to road for 27 MT load factor.
Total 13 long distance routes studied.

One common observation is that over the years,

Average Journey **Time** has **Reduced** and
Average Vehicular **Speed** has **Increased**..



Need of the hour

Core

- Build new & fast Roads
- Widen existing Roads & increase the length of highways

Supplementary

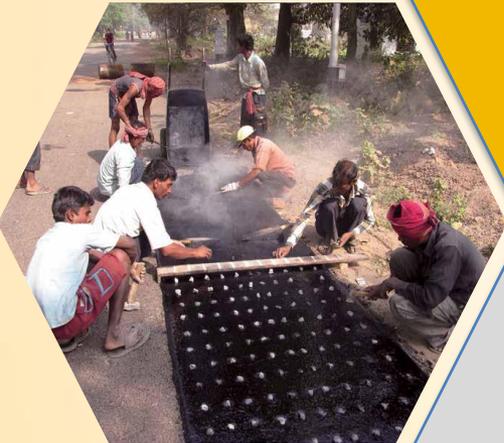
- Electronic toll collection to Minimize delays at check posts

Parallel

- Cargo containerization
- Accelerate DFC
- Multi-modal transportation & Inland Waterways

Policy Making

- GST
- PPP for building logistics parks
- Regulatory Authority for Multimodal.



A Few FAQ's



FAQ's

Q. How has the wastage due to delays on the roads changed over the last 2 reports?

Ans. In 2011-12 Vs. 2014-15 Survey **average stoppage delay per km remained almost the same** (0.0032 hrs. /km vis-a-vis 0.0034 hrs. /km), the **average stoppage expenses per ton-km worsened** (from Rs. 0.16/ton-km to Rs. 0.28/ton-km)



FAQ's

Q. What is the average speed of a truck in the last few years?

Ans. Average vehicular speed improved from 19.75 kmph from 2011-12 to 31.88 kmph in 2014-15



FAQ's

Q. Why this speed has increased even though number of check posts have increased?

Ans. Road conditions have improved a little bit compared to the last survey .Thus, even if there is no appreciable change in delay time, the **speed on highways have increased** resulting in an increase in the overall average speed of vehicles.

FAQ's

Q. What are the POSITIVE changes over the last report?

Ans.

1. If we compare the data with that for the 2011-12 survey, we observe that the **average vehicular speed improved** (from 19.75 kmph to 31.88 kmph in 2014-15)
2. **Road Conditions have improved.** In 2013-14 the average length of road construction was 11.67 km per day. The corresponding target for 2014-15 is 17.26 km per day.

FAQ's

Q. What are the **NEGATIVE** changes over the last report?

Ans:

1. The average **stoppage expenses** per ton-km has **worsened** from Rs. 0.16/ton-km to 0.28/ton-km in 2014-15 and has increased by 133.33% in 2014-15 over 2011-12.
2. The average **trip expense** and the freight rates per tonne-km has **increased** for majority of the routes in India.
3. The average **total number of stops** and the average number of toll stops **increased** in 2014-15 over 2011-12.



FAQ's

Q. What are the top 5 recommendations of the report?

Ans.

1. Government should resolve issues regarding **GST** to reduce the stoppage delays that take place for documentation check and tax collections.
2. **Fuel efficiency** in terms of mileage has to be increased. This is currently suffering poor road conditions, traffic jams, multiple on-road stops, long queues, idling at check posts, and old vehicles.
3. Issues in relation to **rail freight transportation** faced by shippers need to be addressed and resolved. Eg. Loading delays, unavailability of rakes when required, poor service and lack of multimodal coordination.
4. Government should broaden the scope of **multi-modal transportation** under the Multi-Modal Transportation of Goods Act, 1993 in India as it is more economic, efficient and eco-friendly.
5. Government should encourage private participation and assume active roles in **multi-modal logistics parks** by providing incentives on investments for such projects.

FAQ's

Q. What are the trends towards multimodal logistics.

Ans.

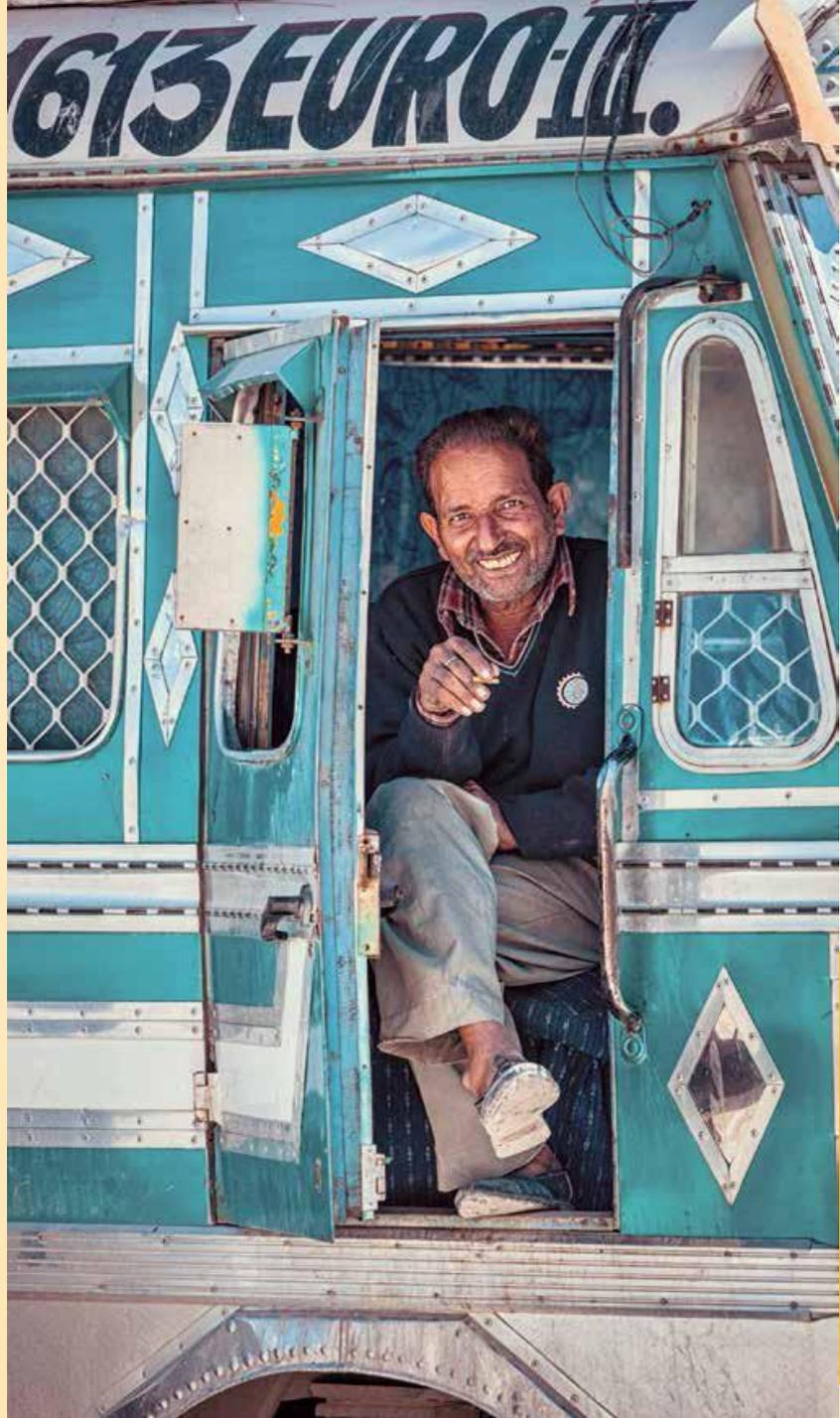
1. Once Indian Railways opened container freight operations to private operations, many private service providers commenced container freight trains with their own Inland Container Depots (ICD). The entry of cargo train operators will increase cargo containerization.
2. Freight transportation will get a boost once the dedicated freight corridors become fully operational soon.
3. Many logistics parks with multi modal facilities have already been set up or are in the process of being set up by private parties either on their own or through collaboration with the Government entities such as CONCOR in the public-private partnership (PPP).
4. The Sagar Mala project will help achieving the major objective of enhancing the capacity of major and non-major ports and help in modernizing them to make it efficient. It will enable them to become drivers of port-led economic development, optimizing the use of existing and future transport assets.
5. The Bharat Mala, an 80,000 Crore project of the government aims at improving connectivity in border areas including coastal boundary.

FAQ's

Q. What are the recommendations for Multi Modal logistics?

Ans.

1. As reported by McKinsey & Co., the ideal modal mix for India should be an even balance between roads and railways, each carrying about 46-47% of the total freight volume.
2. The government should broaden the scope of multi-modal transportation under the Multi-Modal Transportation of Goods Act, 1993 in India as it is more economic, efficient and eco-friendly.
3. Active role and participation of private players has to be encouraged in multi-modal logistics parks by the government. This can be achieved by announcing incentives on investments in such projects



Thank you

3rd Edition

**Operational efficiency of freight transportation by
road in India**

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