



A review of government initiatives to upgrade and strengthen road transport and highways infrastructure for economic development in India

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Abstract

This study aims to provide an assessment of Road Transport infrastructure for the economic development of a country. Road Transport has emerged as the dominant segment in India's transportation sector. Road is the dominant mode of transportation in India, both in terms of share in goods and passenger traffic and in terms of contribution to national economy. Proper developed transport road network not only reduces the cost of transportation, both in terms of money and time, but also helps in the integration of various regions within the country and better motor transport connectivity. Continuous and ambitious policy interventions of Ministry of Road Transport and Highways has contributed towards development of a comprehensive road transport network in the country. Sustained economic growth, improved road infrastructure and increased disposable income of households have led to the rising demand for road transport. The number of registered vehicles has recorded annual growth at the rate of 9.9 percent during the last ten years (2009-2019) with 296 million registered vehicles in India as on 31st March, 2019. Personalised modes of transport (Cars and two wheelers) constitute about 88 percent of total vehicular population. Improving the road safety scenario in the country is one of the most important and challenging activities of the Road Transport Wing.

Keywords: Road transport, national highways, scheme, road network, economic corridors, development of roads

Introduction

Ministry of Road Transport and Highways was formed in 2009. Road Transport is a critical infrastructure for the economic development of a country. It impacts the pace, structure and pattern of development. The Ministry has been entrusted with the responsibility of development of Road Transport and Highways in general and construction & maintenance of National Highways (NHs) in particular.

Road Transport is considered to be one of the most cost effective and preferred mode of transport, both for freight and passengers, keeping in view its level of penetration into populated areas. Thus, it is vital for economic development and social integration of the country. Road Transport has emerged as the dominant segment in India's transportation sector with a share of 4.5% in India's GDP in 2005-06. The Road Transport Sector accounts for about 87% of passenger traffic and 60% of freight traffic movement in the country. Easy availability, adaptability to individual needs and the cost savings are some of the factors which go in favour of road transport. Road transport also acts as a feeder service to railway, shipping and air traffic.

Road Transport Wing of the Ministry is concerned with the formulation of broad policies relating to regulation of road transport in the country, besides making arrangements for movement of vehicular traffic with the neighbouring countries. Improving the road safety scenario in the country is one of the most important and challenging activities of the Road Transport Wing. This Ministry formulates policies for road safety so as to minimise road accidents. The important schemes formulated and managed by the Road Safety Division / Section include publicity programmes, National Highways Accident Relief Service Scheme (NHARSS), refresher training to heavy vehicle drivers in unorganized sector, providing road safety equipments to States/UTs etc.

The Ministry formed five separate working groups on four E's of Road Safety viz. (i) Education (ii) Enforcement (iii) Engineering (roads as well as vehicles) and (iv) Emergency care to deliberate in detail and submit their recommendations on short-term and long term measures for immediate implementation so as to curb road accidents in the country.

India has the second largest road network in the world of about 63.32 lakh km. This comprises National Highways, Expressways, State Highways, Major District Roads, Other District Roads and Village Roads as under:

Table 1

National Highways	1,44,955 km
State Highways	1,67,079 km
Other Roads	60,19,757 km
Total	63,31,791 km

Source: Ministry of Road Transport and Highways.

1. India has a road network of 63, 31,791 Km of roads as on 31st March, 2019, which is the second largest in the World after the United States of America with a road network of 66,45,709 Km. The Rural Roads constitute 71.4 percent (45,22,228 km) of total road network in the country as on 31st march,2019, followed by District Roads with 6,12,778 km (10%), Urban Roads 5,41,554 km (9%), Project Roads 3,43,163 km (5%), State Highways 1,79,535 km (3%), and National Highways 1,32,499 km (2%).
2. The construction of roads in the country has increased consistently from 3.99 lakh km in 1951 to 63.32 lakh km in 2019, i.e., an increase of more than 15 times in 68 years.

3. Total length of surfaced roads has increased from 37,48,291 km in 2017-18 to 40,95,725 km in 2018-19.
4. State wise distribution of construction of roads (excluding JRY roads) for the period up to 31st March 2019 reveals, Maharashtra has the largest road network with 6,36,887 km (11.72%) followed by Uttar Pradesh with 4,42,907 km (8.1%), Assam with 3,99,122 km (7.3%) Madhya Pradesh with 3, 65,045 km (6.7%) and Karnataka with 3,58,300 km (6.9%). These five States accounted for a combined share of 41% of road network in India.
5. Public expenditure by the Government of India for construction of roads in rural as well as urban areas increased during the period 1950-51 to 2018-19. Public investment's share in the road sector has increased from 51.65 % in 2012-13 to 86.4 % in 2018-19, whereas that of private investment decreased from 48.35% to 13.6%.
6. Indicators of road infrastructures like density of roads per 1000 Sq. Km and Density of road per 1000 population have been on increase since 2011-12. Besides this, density of roads in Rural and Urban areas depicts upturn during 2011-12 to 2018-19.

Details on State / UT wise break up of National Highways

National Highways constitutes 2.09 percent of total road network in the country and the total length of National Highways as on 31.03.2019 was at 1,32,499, registering an increase of 4.9 percent compared to the same period last year. All National Highways are surfaced. On States front, Maharashtra has the largest network of National Highways with 17,757 km (13.4%) followed by Uttar Pradesh and Rajasthan with 11,737 km (8.9 %) and 10,342km (7.8 %) respectively, as on 31st march, 2019.

Report on State/UT wise distribution of State Highways in country

Total State Highways constructed was 1,79,535 km as on 31st March 2019, constituting 2.8 percent of total road network in the country. More than 99 percent (1,78,384 km) of State Highways are surfaced. Maharashtra has the largest State Highways network in the country i.e., 17.83 per cent (32,005 Km) followed by Karnataka 10.85 per cent (19473 Km), Gujarat 9.33 per cent (16746 Km), Rajasthan 8.39 per cent (15,061 Km) and Andhra Pradesh 7.52 per cent (13,500 Km). These five States accounted for 53.9% of the total State highways network in the country.

State/UTs wise distribution of total length of District Roads

The total District Road constructed was 6,12,778 km as on 31st March 2019, of which surfaced roads constitute 95.8 percent of total District Road network (i.e., 5,87,004 km). For the second consecutive year in 2018-19, Maharashtra topped the States in the total length of District Roads with 1,08,419 km (17.7%) followed by Uttar Pradesh 55,816 km (9.1%), Madhya Pradesh 50,714 km (8.3%), Karnataka with 49,555 km (8.1%) and Tamil Nadu 48,236 km (7.9%). These five States together account for 51% of the total District Roads network in India.

Rural Roads constructed by Panchayati Raj Institutions

This report highlights on Rural Roads constructed by Panchayati Raj Institutions, (Zilla Parishad, Panchayat

Samiti, Gram Panchayat), roads of the Pradhan Mantri Gram Sadak Yojana (PMGSY) and roads constructed by the State PWD Rural Roads. India has Rural Road network of 45,22,228 km (including JRY Roads) as on 31st March 2019. Rural Roads constitute 71.4% of total road network in the country as of 31st March, 2019. For second consecutive time in 2019, Maharashtra accounted for the largest network of Rural Roads with 4,26,327 km (11.7%) followed by Assam 3,72,510 km with (10.2%), Bihar 2,59,507 km (7.1%), Uttar Pradesh 2,55,576 km (7.0%) and Madhya Pradesh 2,32,344 km (6.4%). These five States account for 42 % of the total Rural Roads in the country.

Details on Urban Roads network in the country

It includes Municipal Roads under Urban Development Departments of States and UTs, roads in Railway Zones, MES roads constructed by Military Engineering Services (MES) and Major and Minor Port Roads. The total length of Urban Road as on 31st March, 2019 was at 5,41,554 km, of which surfaced road constitute about 79 percent (4,28,076 km) of total Urban Roads. On States front, West Bengal accounted has largest network of Urban Roads with 95,065 km (17.6%) followed by Uttar Pradesh with 70,178 km with (13.0%), Karnataka 41,396 km (7.6%), Rajasthan 32,772 km (6.1%) and Madhya Pradesh 31,343 km (5.8%). These five States account for 50 % of the total length of urban Roads in the country.

Details on Project Roads

This report provides the details on Project Roads. This includes roads of Forest Departments, Irrigation Departments, Electricity Departments, roads in coal fields and coal mines of Coal India Ltd., roads under the plant areas of Steel Authority of India Limited (SAIL), National Mineral Development Corporation (NMDC), and Sugarcane Departments of States/UT and Border Roads Organisation (BRO). Projects roads coming under the purview of Central and State Government agencies and departments. The details are as follows

1. Construction of Project Road has decreased marginally from 3,47,547 km in 2017-18 to 3,43,163 km in 2018-19, registered a decline of 1.3 percent relative to same previous period.
2. Uttar Pradesh has the largest network (12.28%) of Project Roads as on 31st March 2019, followed by Gujarat (9.1%), Madhya Pradesh (8.9%), Odisha (7.4%) and Maharashtra (6.4%). These five States together account for 44% of the total Project Roads as on 31.03.2019.

Road network

1. Road Sector

The National Highways have a total length of 1,44,955 km, which in totality serve as the arterial network of the country. The development of National Highways is the responsibility of the Government of India. The Government of India had launched major initiatives to upgrade and strengthen National Highways through various phases of the National Highways Development Project (NHDP) and is taking the initiative forward through the umbrella program of Bharatmala Pariyojana Phase-I and other schemes and projects. The status of various components of Bharatmala st Pariyojana Phase-I and other schemes up to 31 December, 2022 are as under:

Table 2

Components / Scheme	Total Length in km	Length Completed during 01.04.2022 to 31.12.2022 in km
Economic Corridors	9,000	990
Inter Corridors & Feeder Roads	6,000	498
National Corridor Efficiency Improvement	5,000	130
Border & International Road Connectivity	2,000	79
Coastal & Port Connectivity Roads	2,000	24
Expressways	800	158
Balance road works under NHDP	10,000	968
Grand Total	34,800	2,847

Source: Ministry of Road Transport and Highways.

2. The Ministry has placed target of 14,300 km for award, which is highest ever and 12,200 km for construction for the FY year 2022-23. Overall road projects exceeding 65,000 km in length, costing more than Rs. 11 lakh crore, are in progress, of which work in respect of projects of more than 39,000 km length has been completed and in balance length of more than 26,000 km works are in progress. NHs of 5,774 km length have been constructed during the first nine months of FY2022-23.

3. Ropeways

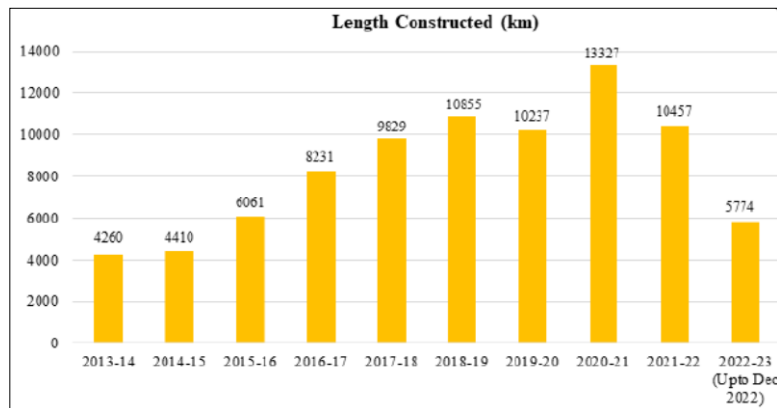
As announced in the Union Budget 2022, the Ministry plans to undertake development of Cable Propelled Transit, i.e., Ropeways, as an alternate mobility transport solution under the National Ropeways Development Programme – Parvatmala Pariyojana. Under this program, the Ministry envisages provision of safe, economical, convenient, efficient, self-sustainable & world-class ropeway infrastructure through first & last mile connectivity to improve logistics and transportation in India. Under Parvatmala Pariyojana, 8 ropeway projects of length ~50 kms are planned for award in Financial Year 2022-23.

Guinness World Records

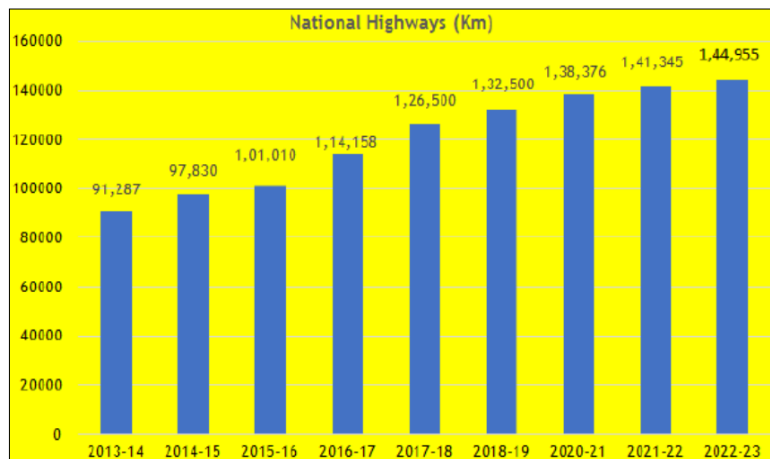
1. NHAI has created Guinness World Record by constructing 75 km continuous Single Lane Bituminous Concrete Road in record time of 105 hours 33 minutes, between Amravati and Akola on NH 53 in Maharashtra.
2. NHAI along with Maha Metro achieved the Guinness World Record by constructing longest Double Decker Viaduct (3.14 km) with Highway Flyover & Metro Rail supported on single column in between 3 metro stations in Nagpur.

Road development

The Ministry has been entrusted with the responsibility of development of Road Transport and Highways in general and construction & maintenance of National Highways. All roads other than National Highways in the States fall within the jurisdiction of respective State Governments. However, the Ministry allocates fund for development of State roads under Central Road Infrastructure Fund (CRIF) scheme. The length of National Highways for which the Ministry of Road Transport and Highways, is responsible is 1,44,955 km.



Source: Ministry of Road Transport and Highways.



Source: Ministry of Road Transport and Highways.

Conclusion

The road transport in India has recorded a considerable growth both in terms of distance as well as in terms of the output of the system. Ministry of Road Transport and Highways (MoRTH) is not only concerned about better accessibility and safer road network in the country but also about enhanced transparency and efficiency. The Sector specific policies of the Ministry have contributed significantly in increasing road network and improving the quality of public transportation system in India. The Government of India had launched major initiatives to upgrade and strengthen National Highways through various phases of the National Highways Development Project. The road transport sector in India has expanded manifold after independence in terms of spread and capacity. The number of registered motor vehicles per thousand persons increased from 53 in 2001 to 225 in 2019 indicating improvement in accessibility of means of transport for the public. The automobile industry is rapidly growing with an annual production of over 26.4 million vehicles in 2019. Road transport sector contributes significantly to Gross Value Added, export and employment generation.

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