

# Basic Road Statistics of India (2017-2018)



सत्यमेव जयते

**GOVERNMENT OF INDIA**  
**MINISTRY OF ROAD TRANSPORT & HIGHWAYS**  
**TRANSPORT RESEARCH WING**  
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### **FOREWORD**

Transport is considered the lifeline of a country's economy. It impacts the level of output, employment and income within the country at a macroeconomic level and production and consumer costs at microeconomic level. An efficient road transport network coalesces supply and demand sides of the economy while influencing the entire gamut of social and economic activities.

2. Road infrastructure is the most important of all public assets as it provides access to employment, social, health and education services and plays a crucial role in fighting against poverty. Recognizing the importance of a reliable road network in the country and the role it plays in economic development of the nation, Ministry of Road Transport and Highways (MoRTH) has undertaken the responsibility of building safer and better roads and highways across the country. India's road connectivity has improved consistently over the years and road transportation has become a focus of rapid development.

3. The Ministry has initiated programmes such as National Highways Development Projects (NHDP), Bharatmala Pariyojana scheme, the Special Accelerated Development Programme in the North East (SARDP-NE) etc. to bridge critical infrastructure gaps in areas of intense economic activity, places of religious and tourist interests, border areas, backward and tribal areas, coastal areas and trade routes. The proactive sector specific policies rolled out by the Ministry, have fast-tracked the rate of construction of highways in the country. Due to continuous and ambitious policy interventions, all National Highways and 99% of State Highways in the country are surfaced. Under National Highways Development Projects, one of the largest road projects in the country, about 55,000 km of roads have been constructed through seven phases during 1998- 2017 and more than 49,260 km of the roads are being upgraded to match international standards.

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4. Bharatmala Yojana has further provided a boost to the ongoing road development projects and will enable a construction of 66,100 kms of economic corridors, border and coastal roads and expressways. It is envisaged that the programme will provide 4-lane connectivity to 550 districts, increase the vehicular speed by 20-25% and reduce the supply chain costs by 5-6%.
5. The National Highways and infrastructure Development Corporation (NHIDCL) was setup to speed up the road construction in strategic areas along the international border and North Eastern region. NHIDCL was assigned a target of developing and improving road connectivity for 10,000 kms in the North Eastern region. Indian Highways Management Company Limited (IHMCL) has also been set up to carry out electronic tolling and other allied works by NHA jointly with its Concessionaires and Financial Institutions.
6. The current issue of "Basic Road Statistics of India" provides comprehensive information on the road network in the country. It is expected that this publication will be useful to administrators, policy makers and the academicians, especially those interested in infrastructure development. I gratefully acknowledge the cooperation extended to the Transport Research Wing (TRW) by States/UT Governments and other agencies involved in road development. Contribution of the officers and staff of the Transport Research Wing involved in bringing out this publication is recognized and well appreciated.

(Aramane Giridhar)

New Delhi  
March, 2021



## **MESSAGE**

Transport sector is a key driver of economic development, trade and social integration of the country. Reduction in transport costs promote specialization, extends markets and leads to achievement of economies of scale. Increased competition has made existence of efficient transport systems in the logistics and delivery chain a critical factor. Easy accessibility, flexibility of operations, door-to-door service and reliability have earned road transport an increasingly higher share of both passenger and freight traffic compared to other modes of transportation.

2. Ministry of Road Transport and Highways (MoRTH) recognizes the importance of road transportation in economic and social wellbeing of the country and has initiated several sector specific policies to achieve the goal of comprehensive development and sustainability in a holistic manner to move towards safer, smarter and sustainable transportation ecosystem in the country. These policies have contributed significantly in increasing the network of National Highways, and simultaneously improving the quality of public transportation system in the country.

3. E-governance initiatives of the Ministry like e-office, e-procurement, e-PACE, Infracon, INAM-Pro+ etc. have not only contributed to the Digital India programme of Government of India but also enhanced transparency and efficiency, thereby ensuring a high quality of response and ranking in the ease of doing of business in the road sector.

4. The Ministry is also committed to reduce road accident deaths by providing safer infrastructure, safer vehicles and building a robust ecosystem with safety being one of the key components. The Motor Vehicles Amendment (MVA), 2019 was one of the foremost steps that has initiated this journey and is now being supported by various other initiatives such as the Integrated Road Accident Database (IRAD), schemes to setup automated vehicle inspection centers and driver training centers. Publicity and awareness campaigns etc. are being implemented to ensure road safety at the grassroots level.

5. It is hoped that the information on different facets of road network in India contained in this publication "Basic Road Statistics of India" will be useful for policy makers in the States as well as for other stakeholders. I would like to extend my gratitude to Central and State Government Departments who have contributed to bring out this publication. I also wish to express my appreciation for the support and coordination provided by my colleagues in Transport Research Wing in bringing out the publication. We look forward to any suggestions you may have in improving this document further.

  
**(K. C Gupta)**



## PREFACE

The Basic Road Statistics of India is an annual publication on the road sector, brought out by Transport Research Wing of the Ministry of Road Transport & Highways. The present issue of 'Basic Road Statistics of India, 2017-18' provides a broad overview of road transport sector in the country with focused emphasis on recent development. The broad theme of the publication is to provide an insight into the performance of major indicators of roads across country category-wise.

India's road network comprises of National Highways, State Highways, District Roads, Rural Roads, Urban Roads and Project Roads. The Ministry of Road Transport & Highways is mandated with the development & maintenance of road network in the country particularly that of National Highways.

The present publication provides, inter-alia, an overview of the composition and growth of the road sector over a period of time, State/UT-wise spread of different category of Roads, International comparison positioning Indian Roads viz-a-viz other countries, a chapter on recent initiatives taken by Ministry of Road Transport and Highways for improving Road network including the budgetary provisions and expenditure incurred, the various sources of financing for Highway development etc.

The present document contains substantial up gradations over the previous versions. Session III of the publication elaborates on Expressways in India. Information on completed and on-going expressways by NHAI and UPEIDA is also provided.

Various Departments and Organisations of Government of India and State/UT Governments made contribution to their respective field viz National Highways, State Highways, District Roads, Rural Roads, and Urban Roads & Project Roads. I owe deep gratitude to all data source agencies for sharing the valuable data / information to bring out this Publication. As always, deep gratitude is owed to the staff of Transport Research Wing, for the effort put in by them in bringing out this publication.

Constructive suggestions from the users of this document in improving its quality and coverage are welcome.

*Kal Singh*  
15/3/21

(Kal Singh)

New Delhi,  
15th March, 2021

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1. The Basic Road Statistics of India 2017-18 provides State/UT-wise data on various categories of roads at National, State/UT, District and Local Levels (Municipal/ Panchayat). This report contains 10 Sections elaborating on various indicators of road network in India. The report highlights the role of various Department/ Organisation/ Agencies who are responsible and executes construction and maintenance of different categories of Road in India. As we are aware, Expressways are playing a vital role in delivering Goods and Services in fast mode, hence, this publication added a new section Expressways in India which brings out an overview of completed and ongoing construction of Expressways (by NHAI).
  - ii. The total road length of the country has increased significantly from 3.99 lakh km in 1951 to 62.16 lakh km in 2018.
  - iii. State wise distribution of total road length (excluding JRY roads) shows that for the period up to 31st March 2018, Maharashtra (6,26,521Km) accounted for the largest share (11.79%) in total road length followed by Uttar Pradesh (8.21%), Madhya Pradesh (6.85%), Karnataka (6.67%) and Assam (6.46%).
  - iv. The percent share of public investment to total investment in the road sector has increased from 51.65 % in 2012-13 to 86.17 % in 2017-18, whereas the share of private investment has been decreased from 48.35% to 13.83% for the same period.
  - v. Indicators of road infrastructures such as density of roads per 1000 Sq. Km and Density of road per 1000 population have shown increasing trend since 2011-12. Density of roads in Rural and Urban areas also depicted an upward trend.
2. **Section 1** of the report provide an overview of road network in India. This section through lights on category-wise break up of roads in India, long run trend in the growth of road length, decadal CAGR analysis and investment in highways by both Public and Private Entities, which brings out the following-
  - i. India has a road network of 62, 15,797 Km comprising all categories of roads as on 31st March, 2018 which is the second largest in the World after the United States of America with a road network of 6,645,709 Km. Amongst the different categories of roads, rural roads (71%) constitute the highest share in the total road length followed by district roads (10%) and urban roads (9%), Projects Roads (5%), State Highways (3%), and National Highways (2%).
3. **Section 2** throws light on State / UT wise break up of National Highways, Lane-wise break up of NHs etc. The share of NH in total road network in the country is 2.03%, the total length of National Highways as on 31.03.2018 was 126.35 thousand Km has

registered an increase of about 10.68 percent over the year 2016-17. Amongst the states Maharashtra has the highest length of NH (17,728 Km). Major schemes initiated by MoRTH for the development of NH, Fund allocated and Expenditure incurred both by Private and Public has also been discussed in this Section.

4. **Section 3** Expressways in India are playing a significant role in easing traffic on road and facilitating for fast movement of goods and services within the country. NHAI has planned to develop 2,638 km of expressways out of which 237 km of expressways have already been completed and 1,344 km of Expressway are currently under implementation while the remaining 1,057 km of Express ways are currently at various stages of pre-construction.
5. **Section 4** of the report brings out State/UT wise distribution State highways in total road network in country. As on 31st March, 2018 the total length of State Highways is 1, 86,908 Km, which has attained an increase of about 6.8 percent as compared to 2016-17. Maharashtra has the highest share in the total length of State Highway roads i.e. 20.87 per cent (38,999 Km) followed by Karnataka 10.44 per cent (19,521 Km), Gujarat 9.20 per cent (17,201 Km), Rajasthan 8.07 per cent (15,085 Km) and Andhra Pradesh 7.28 per cent (13,604 Km).
6. **Section 5** through lights on State/UTs wise distribution of total length of District Roads which was 6,11,268 Km as on 31st March, 2018, out of which Maharashtra accounted

for the largest share (17.92%), followed by U.P (9.21%), Karnataka (8.17%), Tamil Nadu (7.61%) and Madhya Pradesh (7.45%). These five States together account for about 50.36% of the total length of District Roads in India.

7. **Section 6** of the reports highlights on the details of rural roads constructed by PanchayatiRaj Institutions, (ZillaParishad, Panchayat Samiti, Gram Panchayat), roads of the Pradhan Mantri Gram adakYojana (PMGSY) and roads constructed by the State PWDRural Roads. The length of rural roads as on 31st March, 2018, is 44.10 Lakh Km as compared to 41.67 Lakh Km in 2016-17, which registered an increase of about 5.82 percent over 2016-17. Maharashtra accounted for the largest share in Rural Roads (11.82%) in 2017-18 followed by Assam (8.65%), Bihar (7.37%), Uttar Pradesh (7.29%) and Odisha (6.66%). These five States account for about 41.8 % of the total length of Rural Roads in the country.
8. **Section 7** of the reports details Urban Roads, which have increased from 5, 26,483 Km as on 31.03.2017 to 5,34,142 Km as on 31.03.2018. West Bengal accounted for the largest share (17.78%) in total length of Urban Roads as on 31st March 2018, followed by U.P. (11.94%), Karnataka (7.75%), Kerala (6.21%) and Rajasthan (6.07%). These five States accounted for about 49.76% of the total length of Urban Roads in the country.



9. **Section 8** of the report provide the detail of Project Roads largely include roads coming under the purview of Central and State Government agencies and departments. This reports brings out as follows-
  - i. The total length of Project Roads has increased from 3,28,897 Km as on 31.3.2017 to 3,47,547 km as on 31.3.2018, which has an increase of about 5.67% over 2017.
  - ii. Uttar Pradesh accounted for the largest share (12.11%) in total length of Project Roads as on 31st March 2018, followed by Madhya Pradesh (10.31%), Gujarat (9.02%), Odisha (7.40%) and Maharashtra (6.33%).
  - iii. These five States together account for about 45.17% of the total length of Project Roads as on 31.03.2018.
10. **Section 9** deals International Comparison of Road Network, it highlight that:
  - i. With a total road length of 62.15lakh Km, India ranks second out of 196 countries reported in the World Road Statistics, after US.
  - ii. In terms of length of National Highways, India with a length of 1,26,350 km NH and with a share of 2.03% in total road length ranks 2nd after Australia which has a length of 1,81,688 km and share of 20.8% in total road length.
  - iii. India's road density at 1.89 km/km<sup>2</sup> is higher than United Kingdom at (1.73km/km<sup>2</sup>) and China (0.49 km/km<sup>2</sup>), USA (0.68 km/km<sup>2</sup>) but is lesser than France (1.98 km/km<sup>2</sup>) which is geographically much smaller.
11. **Section 10** of the report describes in detail the initiatives taken by Ministry of Road Transport and Highways for improving the Road network in the country. This Section is followed by Annexures on Road Statistics.

# Section - 1

### Road Network in India

#### Overview: Road Transport Sector in India

1.1 Road transport is the most cost effective modes of transportation in India both for freight and passengers, keeping in view its level of penetration in populated areas. Thus, it is vital for economic development and social integration of the country. Road transport emerged as the dominant segment in India's transport sector and contributed about 3.06 per cent to GVA against the total transport sector contribution of 4.77 percentages for the year 2017-18, where the share of Railways was at 0.75 per cent, Air Transport at 0.15 per cent and Water Transport at 0.06 per cent. National Transport Development Policy Committee in its report stated that as of 2011-12, the Road Transport sector accounts for about 69 per cent of freight and 90 per cent of passenger traffic movements in the country. Road Transport also serves as the feeders to railway, shipping and air traffic.

1.2 The road network of the country consists of National Highways (NH), State Highways (SH), District Roads, Rural Roads, Urban Roads and Project Roads. The construction and maintenance National Highways is mandated with the Ministry of Road Transport and Highways (MoRTH). State Roads are executed through the State

Public Works Departments (PWDs). District Roads are constructed & maintained by Public Works Department of States while Rural Roads are executed by Panchayati Raj Departments, State PWD/RWD Departments & National Rural Road Development Agency (NRRDA) of Ministry of Rural Development. Urban roads are executed by Municipalities and Project roads are constructed by various Central and State Government Departments (Section 8 refer to).

#### Road Length – Category wise

1.3 India has a network of over 62,15,797 kilometres of roads as of 31 March 2018 which is the second-largest in the world, after the United States with 66,45,709 kilometres of roads. As a result of major initiatives to modernize the country's road infrastructure the strength and length of countries road network has achieved tremendous progress over the years. The length of roads under different categories has increased consistently from 3, 99,942 km in 1950-51 to 46,76,838 km in 2010–11 and thereafter to 62,15,797 km in 2017-18 (**Table 1** and **Chart 1.1** refer to), and achieved an increase of about 33 per cent in 2017-18 over 2010-11.

**Table 1.1: Road Length by Categories (in Km) 1950-51 to 2017-18**

| Category          | 1950-51         | 1960-61         | 1970-71         | 1980-81          | 1990-91          | 2000-01          | 2010-11          | 2014-15          | 2015-16          | 2016-17          | 2017-18          |
|-------------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| National Highways | 19,811          | 23,798          | 23,838          | 31,671           | 33,650           | 57,737           | 70,934           | 97,991           | 1,01,011         | 1,14,158         | 1,26,350         |
| % to Total Length | 4.95            | 4.54            | 2.61            | 2.13             | 1.45             | 1.71             | 1.52             | 1.79             | 1.80             | 1.94             | 2.03             |
| State Highways    | ^               | ^               | 56,765          | 94,359           | 1,27,311         | 1,32,100         | 1,63,898         | 1,67,109         | 1,76,166         | 1,75,036         | 1,86,908         |
| % to Total Length | 0.00            | 0.00            | 6.20            | 6.35             | 5.47             | 3.92             | 3.50             | 3.05             | 3.14             | 2.97             | 3.01             |
| Districts Roads   | 1,73,723        | 2,57,125        | 2,76,833        | 4,21,895         | 5,09,435         | 7,36,001         | 9,98,895         | 11,01,178        | 5,61,940         | 5,86,181         | 6,11,268         |
| % to Total Length | 43.44           | 49.02           | 30.26           | 28.4             | 21.89            | 21.82            | 21.36            | 20.12            | 10.03            | 9.94             | 9.83             |
| Rural Roads*      | 2,06,408        | 1,97,194        | 3,54,530        | 6,28,865         | 12,60,430        | 19,72,016        | 27,49,804        | 33,37,255        | 39,35,337        | 41,66,916        | 44,09,582        |
| % to Total Length | 51.61           | 37.6            | 38.75           | 42.34            | 54.16            | 58.46            | 58.80            | 60.99            | 70.23            | 70.65            | 70.94            |
| Urban Roads       | 0               | 46,361          | 72,120          | 1,23,120         | 1,86,799         | 2,52,001         | 4,11,679         | 4,67,106         | 5,09,730         | 5,26,483         | 5,34,142         |
| % to Total Length | 0               | 8.84            | 7.88            | 8.29             | 8.03             | 7.47             | 8.80             | 8.54             | 9.10             | 8.93             | 8.59             |
| Projects Roads    | 0               | 0               | 1,30,893        | 1,85,511         | 2,09,737         | 2,23,665         | 2,81,628         | 3,01,505         | 3,19,109         | 3,28,897         | 3,47,547         |
| % to Total Length | 0               | 0               | 14.31           | 12.49            | 9.01             | 6.63             | 6.02             | 5.51             | 5.70             | 5.58             | 5.59             |
| <b>Total</b>      | <b>3,99,942</b> | <b>5,24,478</b> | <b>9,14,979</b> | <b>14,85,421</b> | <b>23,27,362</b> | <b>33,73,520</b> | <b>46,76,838</b> | <b>54,72,144</b> | <b>56,03,293</b> | <b>58,97,671</b> | <b>62,15,797</b> |

*Note: Figures in parenthesis indicate per cent to total road length.*

*(\*)- Total includes 9 lakh Km of Rural roads constructed under Jawahar Rozgar Yojana*

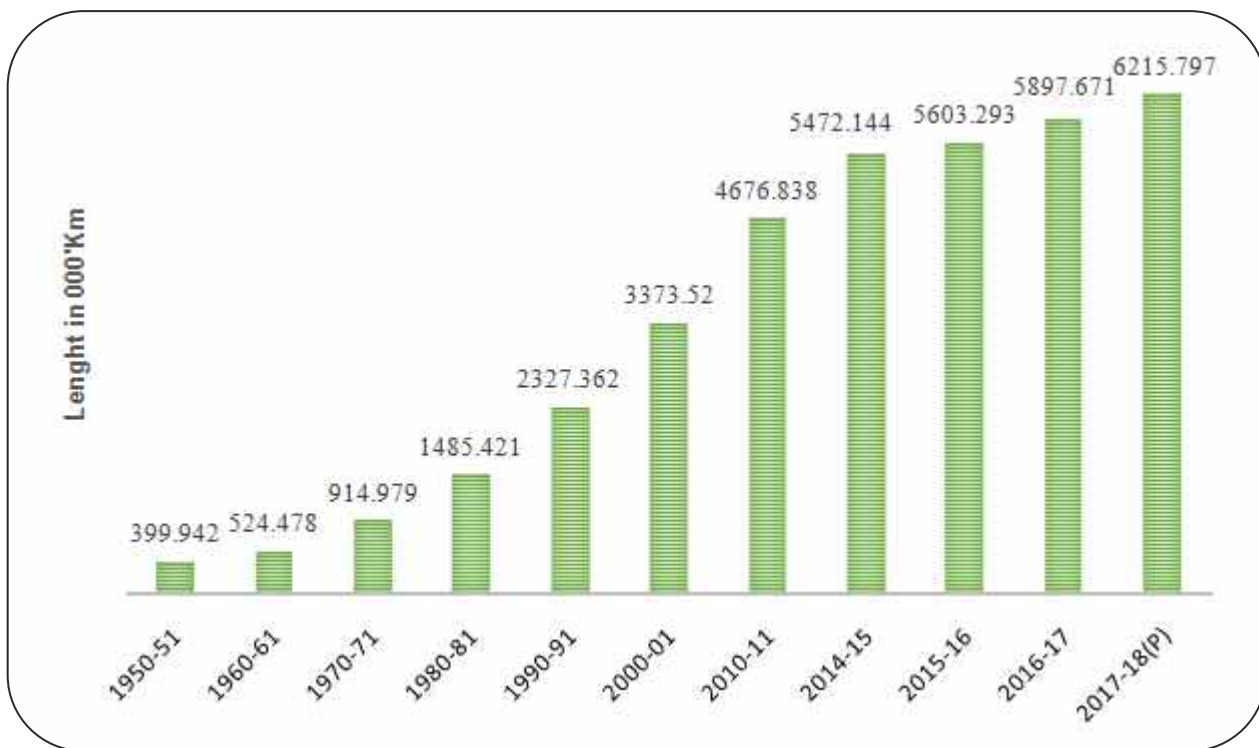
*^ - Included in Districts Roads*

1.4 This is primarily been on account of the proactive policy steps such as leveraging of Private and Public Investment and the deployment of innovative financing models by Ministry of Road Transport and Highways. Besides this, projects like National Highways Development Programme, Bharatmala Pariyojna Phase-I, Special Accelerated Road Development Programme for North-Eastern region (SARDP-NE), Char Dham Pariyojana, Connectivity to the Border Areas, Connectivity to the Backward/As operational Areas etc. contributed to

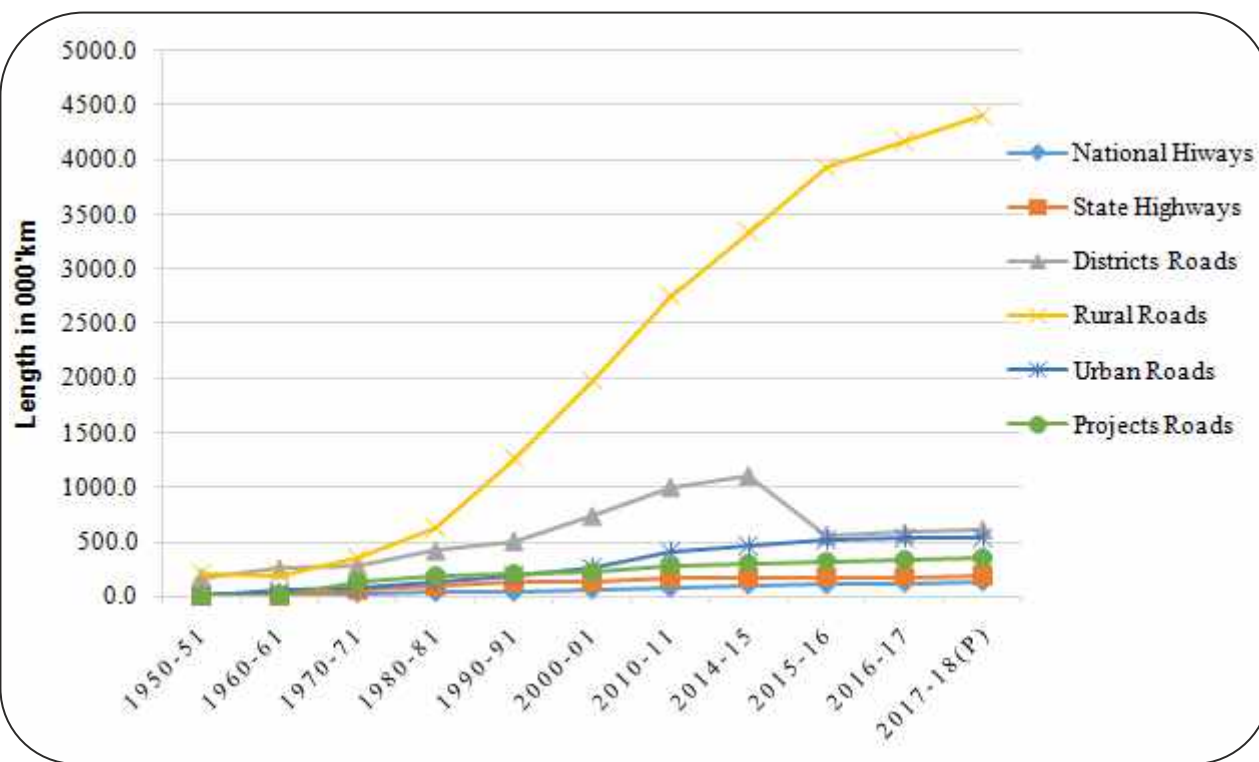
enhance the length and the quality of road network in the country.

1.5 It may be noted that rural roads achieved highest increase in the length (Chart 1.2) which constitute about 70 percent of total roads in 2017-18. The growth of other categories of roads has been depicting increasing trend however at constant rate over the period 1950-51 to 2017-18. In the Table 1.2, all categories of roads attained positive change in growth of length in 2018 over 2017 and the National highways achieved the highest increase of 10.68 percent over the previous period.

**Chart 1.1: Trend of Growth of Total Road Length (in 000'Km)**



**Chart 1.2: Category wise breakup trend of Growth of Road Length (in 000'Km)**



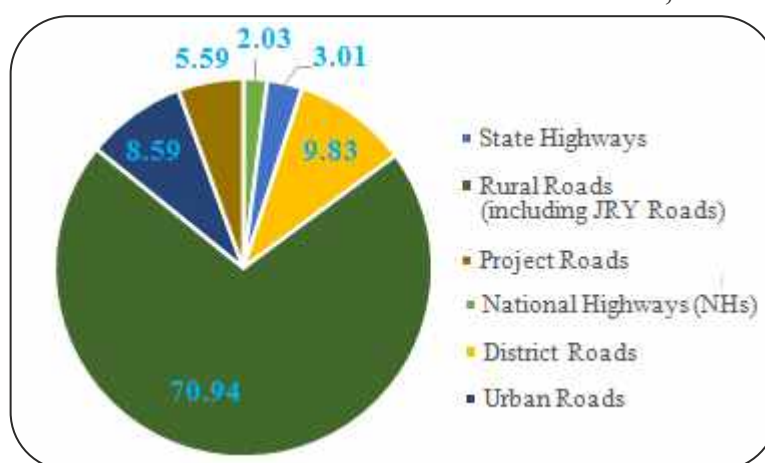
**Table 1.2 Length of Various Categories of Roads (in Km)**

| Category of Road                  | 2017 As on 31 <sup>st</sup> Mar (Km) | % share to total roads | 2018 As on 31 <sup>st</sup> Mar (Km) | % share to total roads | % Change over Previous period |
|-----------------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|-------------------------------|
| National Highways (NHs)           | 1,14,158                             | 1.94                   | 1,26,350                             | 2.03                   | <b>10.68</b>                  |
| State Highways                    | 1,75,036                             | 2.97                   | 1,86,908                             | 3.01                   | <b>6.78</b>                   |
| District Roads                    | 5,86,181                             | 9.94                   | 6,11,268                             | 9.83                   | <b>4.28</b>                   |
| Rural Roads (including JRY Roads) | 41,66,916                            | 70.65                  | 4,40,9582                            | 70.94                  | <b>5.82</b>                   |
| Urban Roads                       | 5,26,483                             | 8.93                   | 5,34,142                             | 8.59                   | <b>1.45</b>                   |
| Project Roads                     | 3,28,897                             | 5.58                   | 3,47,547                             | 5.59                   | <b>5.67</b>                   |
| <b>Total</b>                      | <b>58,97,671</b>                     | <b>100</b>             | <b>6,21,5797</b>                     | <b>100</b>             | <b>5.39</b>                   |

Source: MoRTH

1.6 Rural roads account for about more than 70 percent of share to total road network in the country followed by Districts roads (9.83%) and Urban Roads (8.59 %) in 2018 as presented in Chart 1.3.

**Chart 1.3: The category-wise break up of percentage share to total road network as on 31<sup>st</sup> March, 2018.**



### Decadal Analysis:

1.7 The total length of roads in the country has increased significantly from 3.99 lakh km in 1951 to 62.16 lakh km in 2018, growing at a Compound Annual Growth Rate (CAGR)

of 4.2% (Table 1.3). CAGR for the period 1951-2018, along with decadal CAGRs, are presented in Table 1.3 below.

**Table 1.3: CAGR (in %) of Road Networks -1951 to 2018**

| Period    | NHs | SHs & District Roads | Rural Roads | Urban Roads | Project Roads | Total |
|-----------|-----|----------------------|-------------|-------------|---------------|-------|
| 1951/1941 | 2.7 | 2.3                  | 4.7         | NA          | NA            | 4.2   |
| 1961/1951 | 1.9 | 4                    | -0.5        | NA          | NA            | 2.7   |
| 1971/1961 | 0   | 2.6                  | 6           | 4.5         | NA            | 5.7   |
| 1981/1971 | 2.9 | 4.5                  | 5.9         | 5.5         | 2.1           | 5     |
| 1991/1981 | 0.6 | 2.1                  | 7.2         | 4.3         | 1.2           | 4.6   |
| 2001/1991 | 5.5 | 3.1                  | 4.6         | 3           | 0.6           | 3.8   |
| 2014/2004 | 3.4 | 3.9                  | 4.4         | 4.3         | 1.3           | 4.1   |
| 2015/2005 | 4.1 | 3.1                  | 3.9         | 5           | 1.5           | 3.7   |
| 2016/2006 | 4.3 | -2.5                 | 5.5         | 5.7         | 2             | 3.7   |
| 2017/2007 | 5.5 | -2.6                 | 5.7         | 5.8         | 2             | 3.9   |
| 2018/2008 | 6.6 | -2.4                 | 6.1         | 5.8         | 2.5           | 4.2   |

\* *Note: Since the year 2015-16 the category Other PWD Road (OPWD) has been discontinued and PWD road, other than SHs, are categorized under District Roads and Rural roads under PWD. Because of this change, the figures in respect of OPWD, District Road & Rural Roads are not comparable with figures of previous years.*

1.8 During 2008-2018, National Highways registered CAGR growth of 6.6%, which is the highest decadal growth, followed by rural roads with CAGR growth of 6.1% and urban roads with CAGR growth of 5.8%. In Table 1.1, the length of National Highways was 70,934 Km in 2010-11 which has increased consistently to 1,26,350 Km in 2017-18 with growth of about 78 percent over 2010-11.

1.9 The proactive policy steps, leveraging of private and public investment, innovative financing models, have resulted in increase in the pace of development of National Highways in recent years. The details of

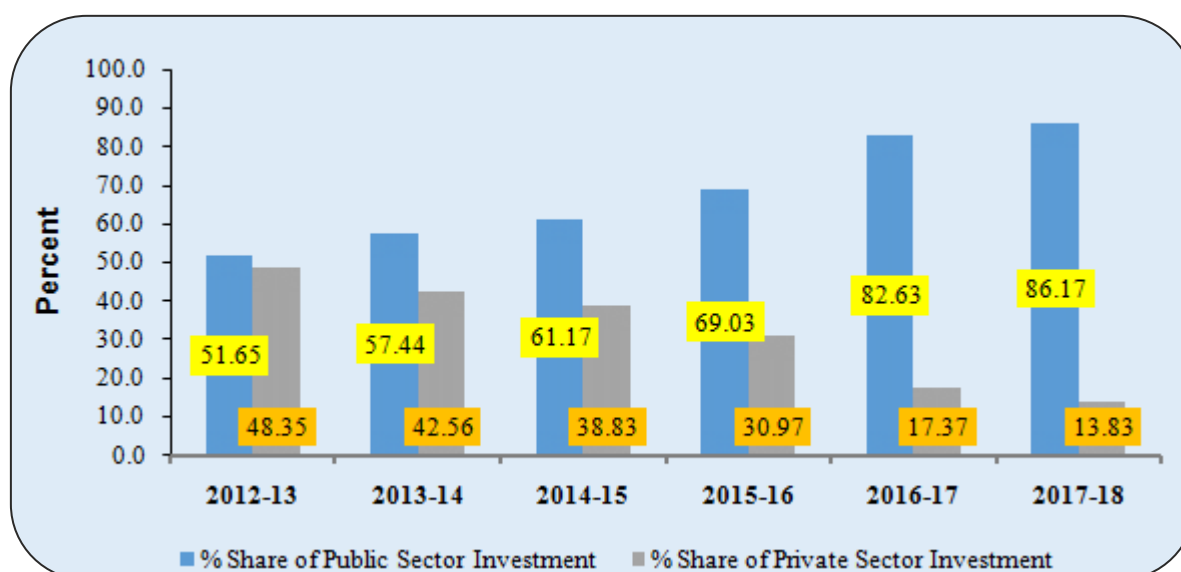
Investment in National Highways are given in Table 1.4. The combined public and private investment has increased during 2012-13 to 2017-18@ CAGR of 23.23% (Table 1.4). The total investment in construction of Highways has increased from Rs. 41,998.4 crore in 2012-13 to Rs. 1,19,353.02 crore in 2017-18. The share of public sector investment in highways has increased from Rs 21,693.74 crore in 2012-13 to Rs 1,02,852.38 crore in 2017-18 while that of private sector has gone down from Rs 20304.66 crore in 2012-13 to Rs 16500.64 crore in 2017-18 (Table 1.4 refer to).

**Table 1.4: Public and Private Sector Investment in Road Transport (Rs in crore)**

| S. No.                 | Year    | Expenditure        |                   |             |
|------------------------|---------|--------------------|-------------------|-------------|
|                        |         | Private Investment | Public Investment | Total       |
| 1                      | 2012-13 | 20,304.66          | 21,693.74         | 41,998.40   |
| 2                      | 2013-14 | 22,515.05          | 30,385.64         | 52,900.69   |
| 3                      | 2014-15 | 19,232.44          | 30,295.26         | 49,527.70   |
| 4                      | 2015-16 | 29,770.00          | 66,369.14         | 96,139.14   |
| 5                      | 2016-17 | 16,028.64          | 76,275.26         | 92,303.90   |
| 6                      | 2017-18 | 16,500.64          | 1,02,852.38       | 1,19,353.02 |
| CAGR (2012-13/2017-18) |         |                    |                   | 23.23       |

Source: Calculation based on the Expenditure Statement of Roads Wing (Annexure 8.1 at the end of the Report) - Public investment include Plan, Non-Plan and IEBR

**Chart 1.4: Percent share of Public and Private Investment to total Investment in Road Transport**



1.10 The share of public investment has been consistently increasing during the period 2012-13 to 2017-18 while that of private investment has tremendously been declining (Chart 1.4). It may be noted that in the Chart 1.4, public sector share's about 86 per cent of total investment in road transport sector.

#### **Road Categories- Surfaced Roads (Quality)**

1.11 It is observed that along with the increase

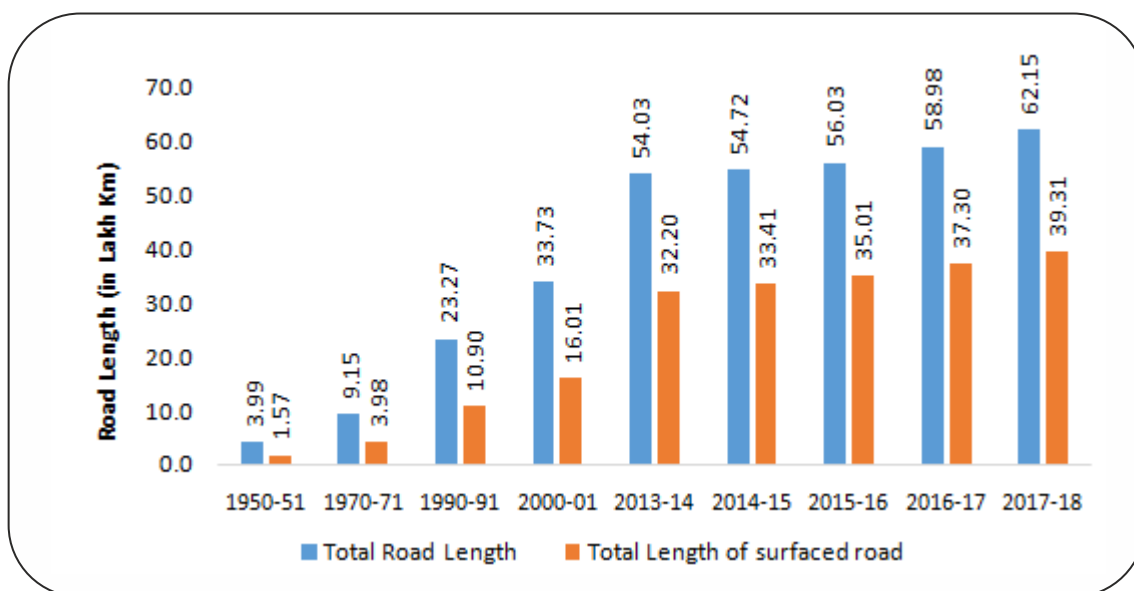
in the total road length (Table 1.1), the category of paved/ surfaced road length has also been increased over the years from 1950-51 to 2017-18 (Chart 1.5). The length of paved/surfaced road grew from 1.57 lakh Km as on 31<sup>st</sup> March 1951 to 37.48 lakh Km as on 31<sup>st</sup> March 2018. The percentage share of length of Surfaced road to total length has increased from 39.26 percent as on 31<sup>st</sup> March, 1951 to 63.25% as on 31<sup>st</sup> March, 2018, implies



improvements in the quality of public transportation system in the country. This, resulted in significant decline in road accidents and number of persons killed in 2017-18 as compared to 2016-17 (see chapter 2). Out of total surfaced road length, about 80.4 percent length

constitute Bituminous and Cement Concrete roads (Annexure 1.2 refer to) in 2018 and the remaining 19.57 percent is Water Bound Macadam roads. The snap shot of total and surfaced road length (in Km) during the period 1950-51 to 2017-18 has been presented in Chart 1.5.

**Chart 1.5: Snap shot of Surfaced and Total Road Length (Km in Lakh)**



1.13. It may be noted in the Table 1.5 about 63.3 per cent of total roads (including JRY roads) in the country are surfaced as of 31<sup>st</sup> March, 2018. National Highways are fully

surfaced and about 99.2 percent of State highways and 94.9 percent of Districts roads are surfaced in Table 1.5.

**Table 1. 5: Snap shot of Surfaced and Total road Length (in Km) as of 31<sup>st</sup> March, 2018**

| Category                    | Surfaced Road | Total Length | Surfaced Road as % of Total |
|-----------------------------|---------------|--------------|-----------------------------|
| National Highways           | 1,26,350      | 1,26,350     | 100.0                       |
| State Highways              | 1,85,495      | 1,86,908     | 99.2                        |
| District Roads              | 5,80,064      | 6,11,268     | 94.9                        |
| Rural Roads*                | 22,95,053     | 35,09,582    | 65.4                        |
| Urban Roads                 | 4,15,859      | 5,34,142     | 77.9                        |
| Project Roads               | 1,45,471      | 3,47,547     | 41.9                        |
| Total (Excluding JRY Roads) | 37,48,292     | 53,15,797    | 70.5                        |
| Total (Including JRY Roads) | 39,31,494     | 62,15,797    | 63.3                        |

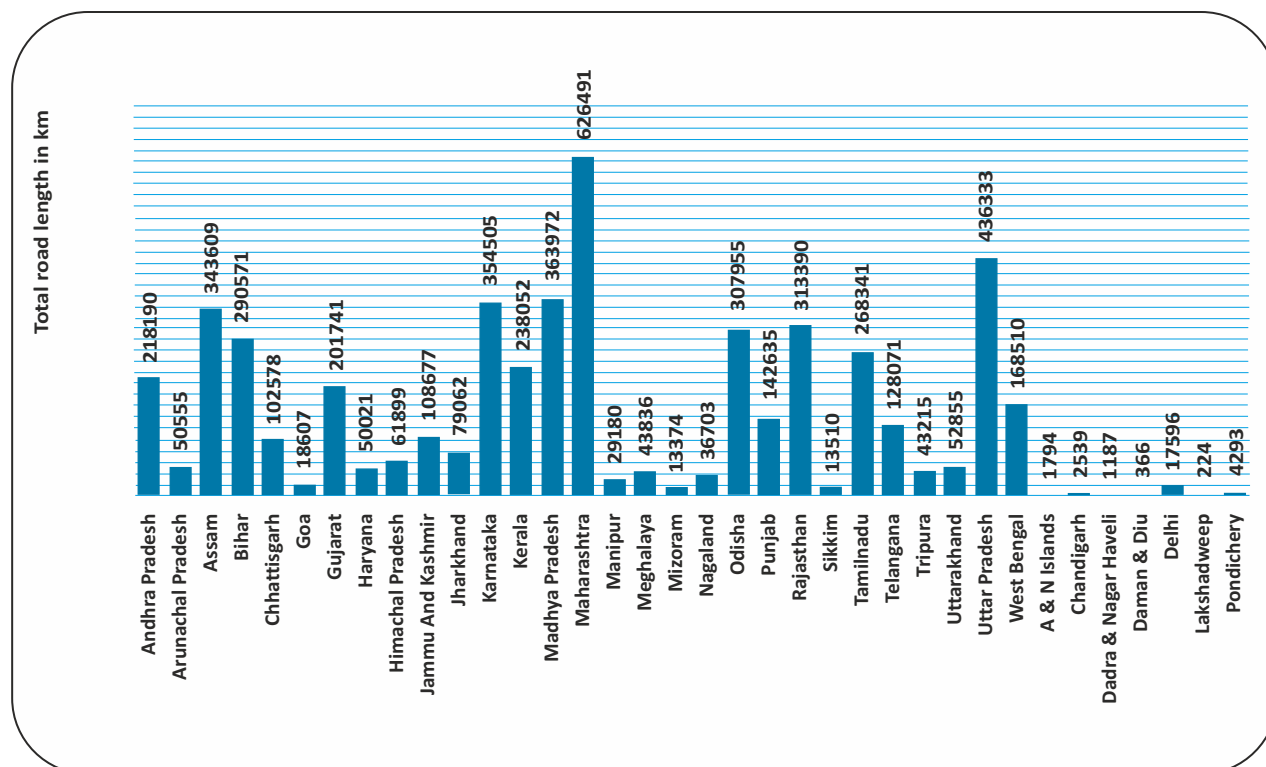
\* Exclude JRY roads

## State/UT wise distribution of Total and Surfaced Road

1.14 State/UT wise distribution of total road length (excluding JRY roads) shows that as of 31st March 2018, Maharashtra accounted for the largest share (11.79%) with 6,26,491 km in total length followed by Uttar Pradesh (8.21%) with 4,25,420 km, Madhya Pradesh (6.85%) with

3,59,022 km, Karnataka (6.67%) with 3,51,034 km and Assam (6.46%) with 3,48,616 km (Chart 1.6 refer). These five States with the largest road networks accounted for a combined share of about 39.98% of road length in India. Details on State/UT wise distribution of total road length is at Annexure 1.3 and the distribution of total road length is presented in Chart 1.6 below.

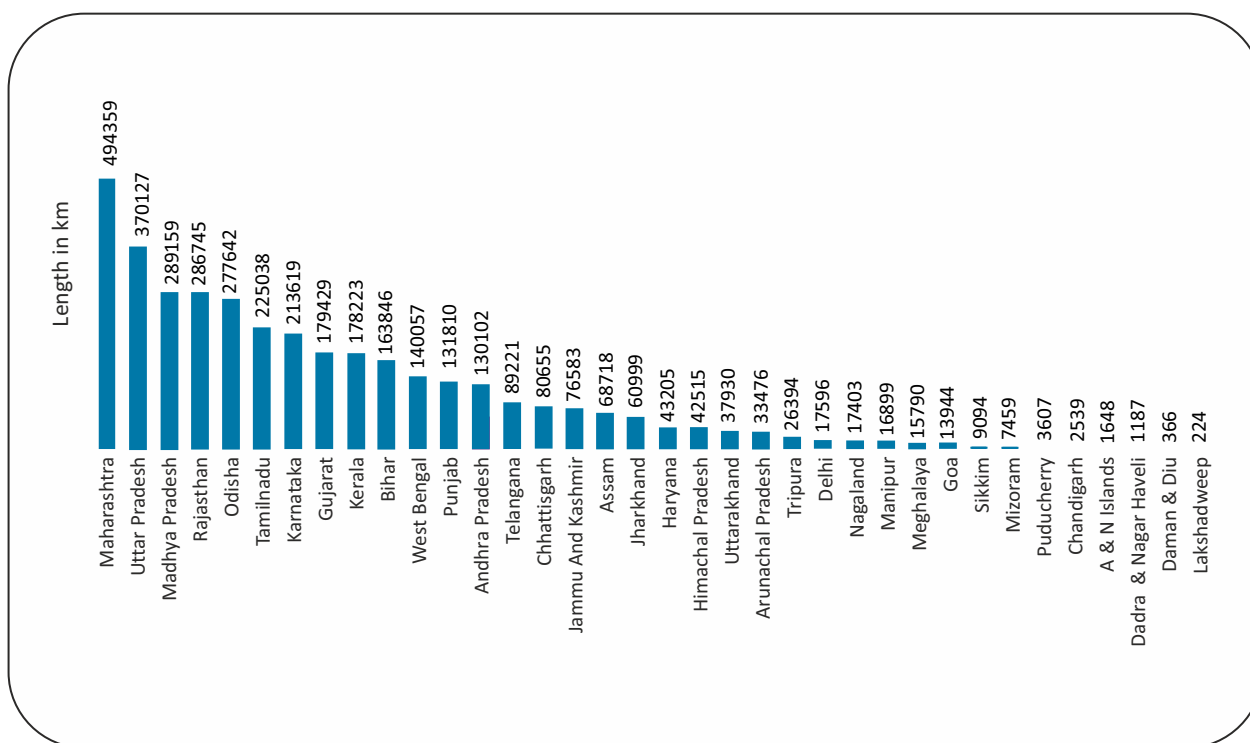
Chart 1.6: State/UT wise Distribution of Total Road Length as of 31<sup>st</sup> March, 2018



1.15 State/UT wise distribution of surfaced road length presented in the presented in the Chart 1.7 shows that Maharashtra tops the States with 4,94,359 Km (13.19%) followed by Uttar Pradesh with 3,70,127

Km (9.87%) and Madhya Pradesh with 2,89,159 Km (7.71%). Details on State wise distribution of total Surfaced road length is at **Annexure 1.3**

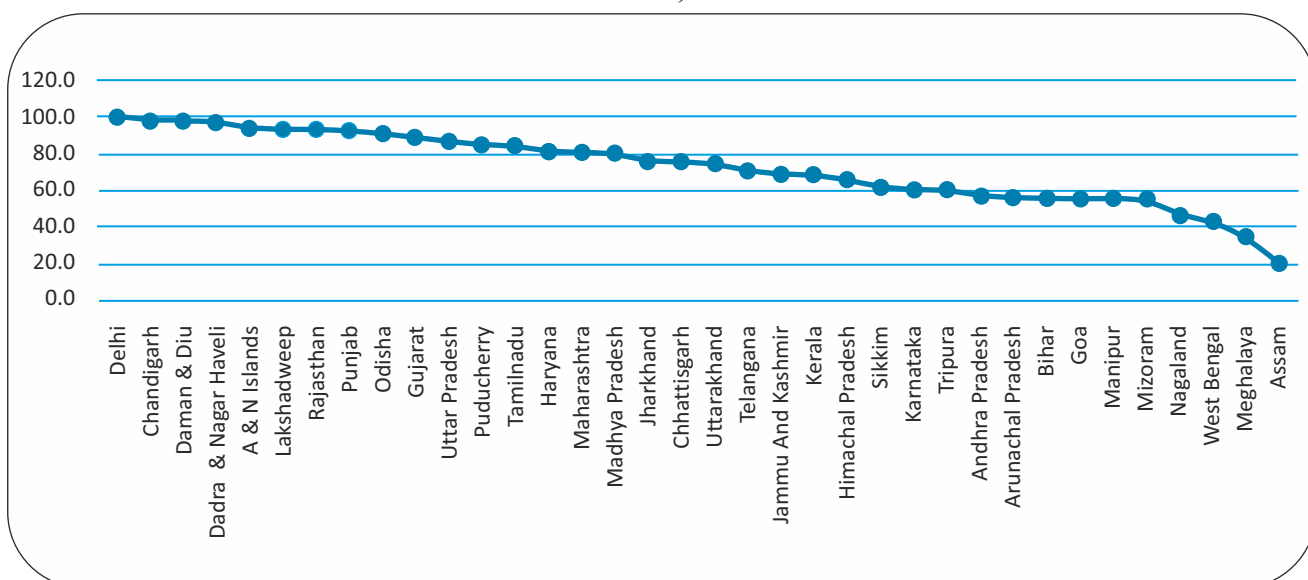
**Chart 1.7: State/TU wise Distribution (Descending Order) of Total Surfaced Road Length as of 31<sup>st</sup> March, 2018**



1.16 About 70 percent of roads (Excluding JRY) in the country is surfaced as of 31<sup>st</sup> March, 2018 (Table 1.5). In Delhi all roads are surfaced as of 31<sup>st</sup> March, 2018 in Chart 1.8. Share of Surfaced road to total roads length is the lowest in Assam i.e. only

20.00 percent followed by Meghalaya (36.02%), West Bengal (42.55%) and Nagaland (47.42%). For all other States more than fifty percent of roads are surfaced (Chart 1.8 refer to).

**Chart 1.8: Percent share of Surfaced road to Total road Length across State/UTs as of 31<sup>st</sup> March, 2018**



**Table 1.6: Distribution of Total and Surfaced Road Length in North Eastern States as of 31<sup>st</sup> March, 2018**

| States            | Total Length | Surfaced | Surfaced as % of Total Length |
|-------------------|--------------|----------|-------------------------------|
| Manipur           | 29,180       | 16,899   | 57.91                         |
| Meghalaya         | 43,836       | 15,790   | 36.02                         |
| Mizoram           | 13,374       | 8,142    | 60.88                         |
| Nagaland          | 36,703       | 17,403   | 47.42                         |
| Arunachal Pradesh | 50,555       | 33,476   | 66.22                         |
| Assam             | 3,43,609     | 68,718   | 20.00                         |
| Sikkim            | 13,510       | 9,094    | 67.31                         |
| Tripura           | 43,215       | 26,394   | 61.08                         |

### Indicators of Road Infrastructure

1.17 Road density of Country, defined as average road length per 1000 Km has been depicting an increasing trend since 2010-11

(Table 1.7). This indicate an improvement of the quality and strengthening of public transportation system in the country.

**Table 1.7: Road Density**

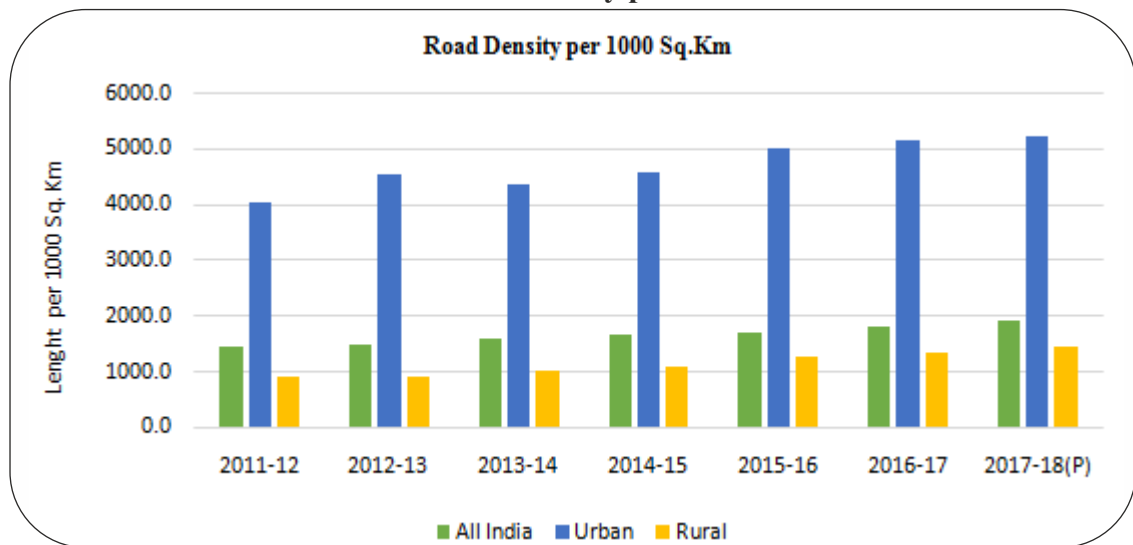
| Indicators                | 2011-12  | 2012-13  | 2013-14  | 2014-15  | 2015-16  | 2016-17  | 2017-18  |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|
| <b>Total Road Density</b> |          |          |          |          |          |          |          |
| Per 1000 Km <sup>2</sup>  | 1,422.63 | 1,479.98 | 1,591.47 | 1,664.55 | 1,704.44 | 1,793.99 | 1,890.75 |
| Per 1000 Population       | 3.86     | 4.02     | 4.32     | 4.52     | 4.63     | 4.87     | 5.13     |
| <b>Urban Road Density</b> |          |          |          |          |          |          |          |
| Per 1000 Km <sup>2</sup>  | 4,026.12 | 4,540.68 | 4,364.1  | 4,568.18 | 4,985.04 | 5,148.88 | 5,223.78 |
| Per 1000 Population       | 1.09     | 1.23     | 1.18     | 1.24     | 1.35     | 1.40     | 1.42     |
| <b>Rural Road Density</b> |          |          |          |          |          |          |          |
| Per 1000 Km <sup>2</sup>  | 886.61   | 915.12   | 1,018.75 | 1,076.02 | 1,268.86 | 1,343.53 | 1,421.77 |
| Per 1000 Population       | 3.30     | 3.41     | 3.79     | 4.00     | 4.72     | 5.00     | 5.29     |

*Note: Population and area is as per 2011 census and road length is as on 31/3/2018.*

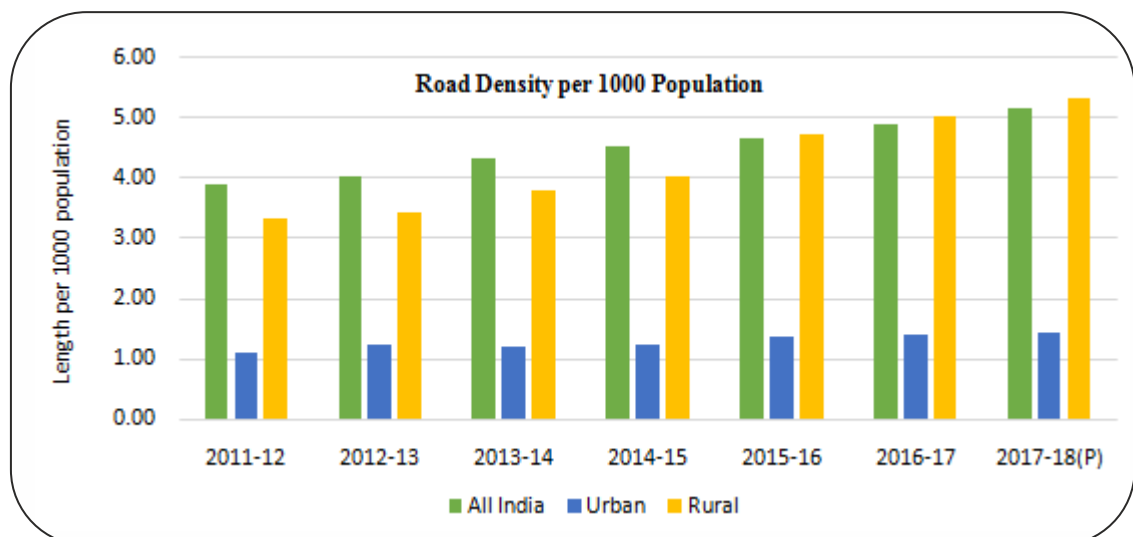
1.18 Road density/availability has increased from 1422.63 per 1000 Sq. Km in 2011-12 to 1890.75 per 1000 Sq. Km in 2017-18 with a growth of about 33 per cent over 2011-12. For Rural area, it has increased from 886.61 per 1000 Sq. Km 2011-12 to 1421.77 per 1,000 Sq. in 2017-18 and for the urban area it increased from 4,026.12 per 1000 Sq. Km and 5,223.78 per 1000 Sq. Km respectively for the same period. Similarly, availability of roads per 1000 population is increasing over the years as

shown in Table 1.7, where it has increased from 3.86 per 1000 population in 2011-12 to 5.13 per 1000 population in 2017-18. There is also corresponding increase in the rural and urban availability of roads as presented in the Table 1.7. It is worthwhile to note that density of road per 1000 population in rural area has increased significantly due to the impact of PMGSY and other initiatives for development of rural roads by various departments of Centre and the States.

**Chart 1.9: Road Density per 1000 Km<sup>2</sup>**



**Chart 1.10: Road Density in Km per 1000 Population**



1.19 Trend of density of roads per 1000 Km<sup>2</sup> presented in the Chart 1.9 indicate that road density is higher in the urban areas as compared to Rural and all India level. However, density of road per 1000 population is higher for the all India and Rural area as compared to urban area (Chart 1.10 refer to)

### Road Density across State/UTs

1.20 State wise distribution of Road density per 1000 Sq. Km as on 31<sup>st</sup> March, 2018 is at **Annexure 7.9b** indicates, Chandigarh's road density (22,274.6 km per 1000 Sq.) stands out be highest followed by Delhi (11,865.4 km per 1000 Sq. ), Puducherry (8,760.9 km per 1000 Sq.), Uttrakhand ( 8,158.3 km per 1000 Sq.), and Lakshadweep (7,481.3 km per 1000 Sq. Km). Similarly, with respect to NH

density presented in the **Annexure 7.9b**, Uttrakhand with 212. 7 per 1000 Sq. has highest NH density followed by Daman & Diu (198.2 km per 1000 Sq.), Chandigarh (131.6 km per 1000 Sq.), Pondicherry (130.6 km per 1000 Sq.), and Nagaland (93.4 km per 1000 Sq.). The availability of roads per 1000 Sq. Km is comparably higher in Union Territories. State Highways density amongst all States/UTs, Daman& Diu (198.2 km per 1000 Sq.) has the highest SH density followed by Arunachal Pradesh (161.2 km per 1000 Sq.), Uttrakhand (127.3 km per 1000 Sq.), Maharashtra (126.7 km per 1000 Sq.), and Kerala (111.7 km per 1000 Sq.) refer annexure 7.9b. The Category wise distribution of Road Density per 1000 Sq. Km. for Top five States/UTs is presented in the Table 1.8.

**Table 1.8: The Category wise Road Density per 1000 Sq. Km. for Top Five States/UTs as on 31<sup>st</sup> March, 2018**

| S No. | District Road         | Rural Roads           | Urban Roads           | Project Roads      |
|-------|-----------------------|-----------------------|-----------------------|--------------------|
| 1     | Delhi (1,660.5)       | Lakshadweep (7,726.0) | Chandigarh (21,336.9) | Uttrakhand (786.9) |
| 2     | Pondicherry (1,618.7) | Pondicherry (4,804.6) | Delhi (10,122.9)      | Assam (277.9)      |
| 3     | Uttrakhand (1,052.9)  | Uttrakhand (4,785.5)  | Pondicherry (2,123.2) | Kerala (231.2)     |
| 4     | Chandigarh (728.1)    | Kerala (4,667.3)      | Dam & Diu (1,318.7)   | Punjab (202.4)     |
| 5     | Kerala (707.1)        | Goa (4,218.7)         | Uttrakhand (1,192.9)  | Jharkhand (176.9)  |

\*Excludes JRY Roads

**Table 1.9: The Category wise Road Density per 1000 Sq. Km. for Northern Eastern States as on 31<sup>st</sup> March, 2018**

| States            | Total Road Density | National Highways | State Highways | District Roads | Rural Roads | Urban Roads | Project Roads |
|-------------------|--------------------|-------------------|----------------|----------------|-------------|-------------|---------------|
| Assam             | 4,380.65           | 49.84             | 32.25          | 77.68          | 3,871.49    | 71.43       | 277.96        |
| Tripura           | 4,121.21           | 81.44             | 100.80         | 43.96          | 3,702.40    | 55.41       | 137.20        |
| Nagaland          | 2,213.83           | 93.37             | 43.55          | 390.09         | 1,622.22    | 2.16        | 62.44         |
| Meghalaya         | 1,954.42           | 51.50             | 34.82          | 223.95         | 1,620.59    | 3.05        | 20.51         |
| Sikkim            | 1,903.86           | 65.25             | 93.45          | 206.97         | 1,434.56    | 9.71        | 93.91         |
| Manipur           | 1,306.96           | 78.43             | 32.02          | 424.02         | 708.43      | 5.93        | 58.13         |
| Mizoram           | 634.43             | 67.50             | 8.07           | 81.31          | 290.52      | 135.64      | 51.39         |
| Arunachal Pradesh | 603.69             | 30.30             | 161.21         | 104.26         | 248.46      | 0.67        | 58.80         |

1.20 Category wise distribution of Road density per 1000 population in table 1.8 indicate that the availability of roads per 1000 sq.km in case of UTs such as Chandigarh, Pondicherry, Delhi is comparably good as compared to States. Amongst North Eastern States, Assam with 4,380.65 Km has the highest Road density followed by Tripura and Nagaland (Table 1.9 refer to).

1.21 Amongst States, Uttarakhand has the highest road density per 1000 population with 43.26 km per 1000 population followed by Arunachal Pradesh with 36.54 km per 1000 population and Sikkim with 22.13 km per 1000 population (refer **Annexure 7.9c**). Category wise distribution of road density per 1000 population for Top Five States in the Table 1.10.

**Table 1.10 The Category wise Road Density per 1000 Population for Top Five States as on 31<sup>st</sup> March, 2018**

| S. No | District Road            | Rural Roads               | Urban Roads        | Project Roads            |
|-------|--------------------------|---------------------------|--------------------|--------------------------|
| 1     | Arunachal Pradesh (6.31) | Uttarakhand (25.38)       | Uttarakhand (6.33) | Uttarakhand (4.17)       |
| 2     | Uttarakhand (5.58)       | Sikkim (16.67)            | Mizoram (2.61)     | Arunachal Pradesh (3.56) |
| 3     | Manipur (3.32)           | Arunachal Pradesh (15.04) | Chandigarh (2.3)   | J & K (1.48)             |
| 4     | Nagaland (3.27)          | Nagaland (13.59)          | West Bengal (1.04) | Himachal Pradesh (1.14)  |
| 5     | Sikkim (2.41)            | Meghalaya (12.25)         | Kerala (0.99)      | Sikkim (1.09)            |

## Quality

1.22 The road transport sector in India has expanded manifold in more than seventy years after independence, both in terms of spread ( total road length & road density) and capacity (No. of registered vehicles on road and the volume of passenger and freight traffic handled). The total road length has increased from 4.0 lakh km. as on 31.03.1951 to about 62.2 lakh km as on 31.03.2018, an increase of more than 15 times. The total length of National highways has increased from 19.81Th. Km to 126.35 Th. km, an increase of about 6 times, during this period. (Table 1.1). The share of surfaced roads in the total road length increased from 47 % in 2001 to 63.3 % in 2018. As of 31<sup>st</sup> March, 2018, all National highways (100%), about 99 per cent of State Highways and about 95 percent of Districts roads are surfaced (Refer Table 1.5).

1.23 Road density, may be considered as an indicator of accessibility of road per thousand Km has increased not only for All India but for Rural and Urban areas also over the years (Table 1.7). The total road density per 1000 sq.km has increased from 1,026.24 Km in 2001 to 1,890.75 in 2018, with an increase of about 84 percentage over 2001. Correspondingly, Rural and Urban road density has increased (refer Table 1.7). Similarly, road density per 1000 population increased from 3.8 Km per 1000 population in 2001 to 5.13 Km in 2018, for Rural area which has increased to 5.29 in 2018 from 3.8 Km per 1000 population in 2001 and for Urban area from 0.88 Km per 1000 population in 2001 to 1.42 Km in 2018.

1.24 Total number of road accidents and fatalities have also come down over the years.

**Table: 1.11 Road accidents, Numbers of persons killed and injured in the last five years 2015-2019**

| Years | Total Numbers of Road Accidents (in numbers) | % Change | Total Numbers of Persons Killed (in numbers) | % Change | Total Numbers of persons Injured (in numbers) | % Change |
|-------|--|----------|--|----------|---|----------|
| 2015  | 5,01,423                                     |          | 1,46,133                                     |          | 5,00,279                                      |          |
| 2016  | 4,80,652                                     | -4.14    | 1,50,785                                     | 3.18     | 4,94,624                                      | -1.13    |
| 2017  | 4,64,910                                     | -3.28    | 1,47,913                                     | -1.9     | 4,70,975                                      | -4.78    |
| 2018  | 4,67,044                                     | 0.46     | 1,51,417                                     | 2.37     | 4,69,418                                      | -0.33    |
| 2019  | 4,49,002                                     | -3.86    | 1,51,113                                     | -0.2     | 4,51,361                                      | -3.85    |

Source: Road Accidents in India 2019 publication of MoRTH



# Section - 2

## Section – 2

### National Highways

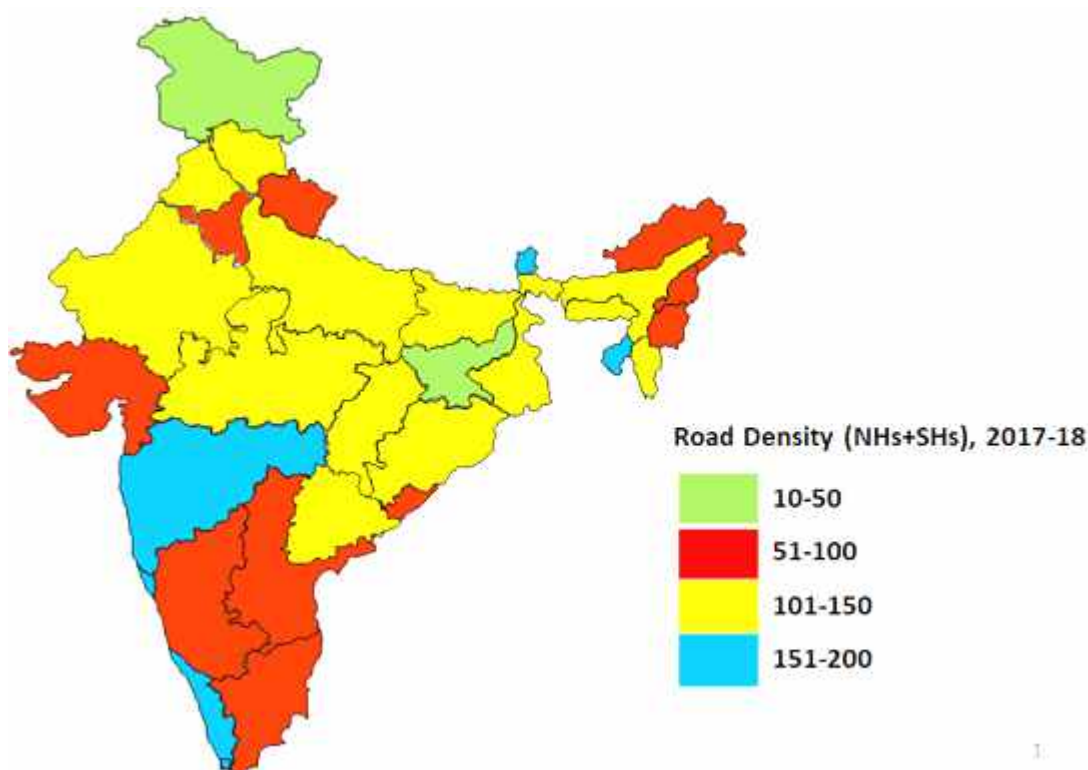
- 2.1 In the road sector, the National Highways are the predominant mode of transportation with road network of 1, 26,350 Km as on March 2018. Though National Highways constitute about 2.04% of the Road network of the country, these NHs carry about 40% of the country's traffic. NHs running through the length and breadth of the country connecting capitals of States and UTs, major ports, rail junctions, industrial and tourist centres and link up with border roads and highways of neighbouring countries. Highways facilitate, conveyance of people, goods, raw-materials, manufactured articles etc. speedily and easily in the different parts of a country. National Highways are also feeders to railways, shipping and air traffic.
- 2.2 The Ministry of Road Transport and Highways (MoRTH) is mandated with the construction, development and maintenance of the National Highways (NH) in the country. The Ministry is progressing towards provision of improved service access to citizens with quality and efficiency in service delivery, transparency in the system and reduced workload for RTO staff. MoRTH implement National Highways projects/flagship schemes through the agency of National Highways Authority of India Ltd (NHAI) , National Highway Infrastructure Development Corporation Ltd. (NHIDCL), State PWDs (2 lane NH) & Border Roads Organization etc. Ministry is also responsible for administration of National Highways Act, 1956, National Highways Authority of India Act, 1988, National Highways Fee (Determination of Rates and Collection) Rules, 2008, Motor Vehicles Act. 1988 and Central Motor Vehicles Rules 1989, formulation of broad policies relating to road transport, environmental issues, automotive norms etc. besides arrangements for movement of vehicular traffic with neighbouring countries.
- 2.3 At present, projects of widening to 4-lane NH configurations or more and Expressways under Bharatmala Pariyojna (Phase-I) and other Schemes have been assigned to the NHAI. The projects of development to 2-lane NH configurations, with or without paved shoulders are primarily being assigned to the State Governments, viz. State PWDs, State Road Construction Departments/ Corporations, etc. The Projects under Special Accelerated Road Development Programme for North-Eastern Region (SARDP-NE), including Arunachal Pradesh Package of Roads, are being primarily assigned to NHIDCL. Further, NHIDCL is also being assigned projects under other Schemes in hill States

including States in the North East Region, the three hill states in North-West Region and the Andaman & Nicobar Islands. The density of National Highways and State highways across different states & UTs is

presented in Map 1. It is noted that Union Territories of Chandigarh, Goa and Daman & Diu along with the States of Tripura, Sikkim,

**Map No. 1**

**Density of National Highways (Nhs) & State Highways (Shs) in India 2018  
(in K.M. Per 1,000 Sq. KM of Area)**



Kerala and Maharashtra have the highest Road density of National and State Highways. State of J&K has the poorest road density of 11.9 km per 1000sq km. Delhi has the road density of 47.2 km per 1000 sq km.

2.4 India's road network (including highways) is one of the most extensive networks in the world with about

62.15 lakh km length comprising National Highways of 1.26 lakh km. Total length of National Highways have increased tremendously over the years (Table 2.1 refer to) due to the proactive policies of Government of India on National Highways developments. The total length of National Highways as on 31.03.2018 was about 126.35 thousand

km registered an increase of about 10.68 percent over the year 2016-17(114.16 thousand km). The National Highway Authority of India (NHAI) was set up as a Special Vehicle in 1997 for the development of highways in country through National Highways Development Programme. Further, this programme has been implemented through 7 phases from 1998 to 2017 with target of construction of about 55,000 km roads. As a result of this innovative programme national highway

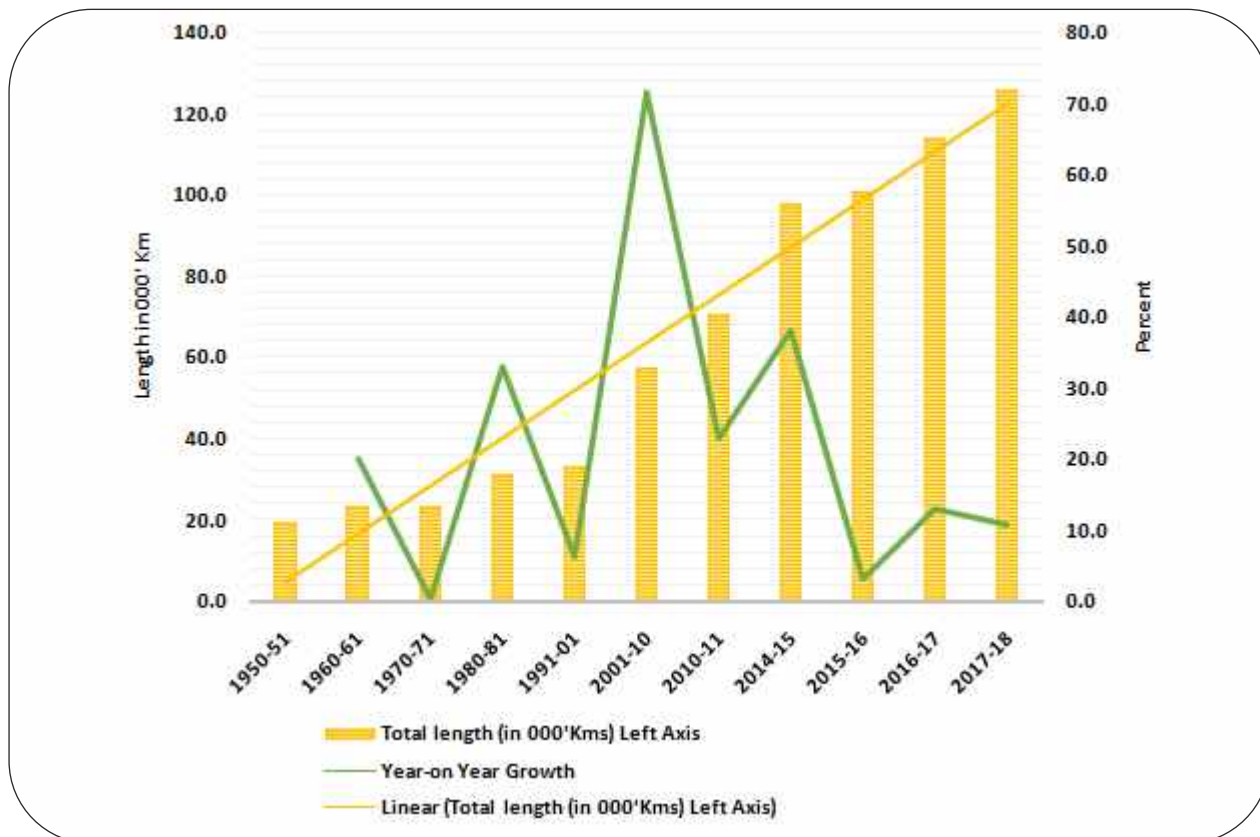
network in the country has entered in to a new era of strengthening and enlarging quality of public transportation system .It is also seen that the length of NH has started increasing consistently since 1990-91 particularly after 2000-01 i.e. post NHDP period (Table 2.1 and Chart 1). Bharatmala Pariyojana the new umbrella programme for highways sector helped to bridge the critical infrastructural gaps in the road sector.

**Table 2.1: Total Length of National Highways during 1951-2018**

| Year    | Length in km | Year-on Year Growth |
|---------|--------------|---------------------|
| 1950-51 | 19,811       | -                   |
| 1960-61 | 23,789       | 20.1                |
| 1970-71 | 23,838       | 0.2                 |
| 1980-81 | 31,671       | 32.9                |
| 1990-91 | 33,650       | 6.2                 |
| 2000-01 | 57,737       | 71.6                |
| 2010-11 | 70,934       | 22.9                |
| 2014-15 | 97,991       | 38.1                |
| 2015-16 | 1,01,011     | 3.1                 |
| 2016-17 | 1,14,158     | 13                  |
| 2017-18 | 1,26,350     | 10.7                |

Source: Planning Division, MoRTH

**Chart 2.1: Trend in the Growth of National Highways**



2.5 It may be noted that (Chart 2.1 refer to) there is a linear upward trend in the growth of National Highways length over the years

from 1950-51 to 2017-18, however the year-on-year growth depicting a mixed trend for the same period.

**Table 2.2: Year wise addition to NH Network since 2014**

| Year                    | NH length (km) |
|-------------------------|----------------|
| Length as on 31.03.2014 | 91,287         |
| 2014-15                 | 5,662          |
| 2015-16                 | 3,208          |
| 2016-17                 | 13,085         |
| 2017-18                 | 12,531         |

Source: Planning Division, MoRTH

**National Highways: Classification**

2.6 National Highways are classified into three categories based on the type of

Lane i.e. Less than Two Lane, Two-Lane and Four-Lane & above. The projects of development to 4-Lane and

NH configurations are under the preview of Central Government and others are under the control of State Governments. Category

wise comparison of the different types of Highways for the years 2016-17 and 2017-2018 is present in Table 2.3.

**Table 2.3: Lane-wise Break-up of National Highways**

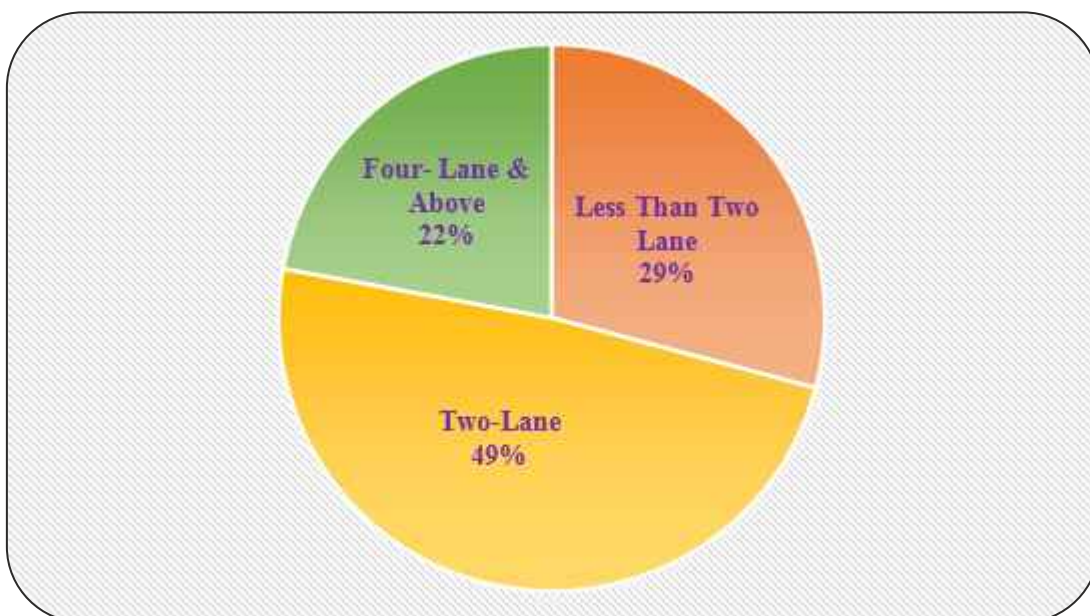
| Lane wise Category of National Highways | As on 31 <sup>st</sup> March, 2017 | As on 31 <sup>st</sup> March, 2018 | Year on Year Growth |
|---|------------------------------------|------------------------------------|---------------------|
| Less Than Two Lane                      | 28901                              | 36808                              | 27.36               |
|   | (25.32)                            | (29.13)                            |                     |
| Two –Lane                               | 58910                              | 61607                              | 4.58                |
|   | (51.60)                            | (48.76)                            |                     |
| Four- Lane & Above                      | 26, 347                            | 27935                              | 6.03                |
|   | (23.08)                            | (22.11)                            |                     |
| <b>Total</b>                            | <b>1,14,158</b>                    | <b>12,63,50</b>                    | <b>10.68</b>        |
|   | <b>(100)</b>                       | <b>(100)</b>                       |                     |

*Note: Figures in parentheses indicates percentage share in total length of NH*

2.7 The biggest increase of 27.36 percent has been in the category of Less Than two Lanes (Table 2.3 refer to) in 2017-18 and there is an increase of 10.68 per cent in the Lane wise growth of length

of NH in 2017-18 over previous year. Two Lane highways account for about 48.8 per cent of total Lane as seen in the Chart 2.2 in 2018.

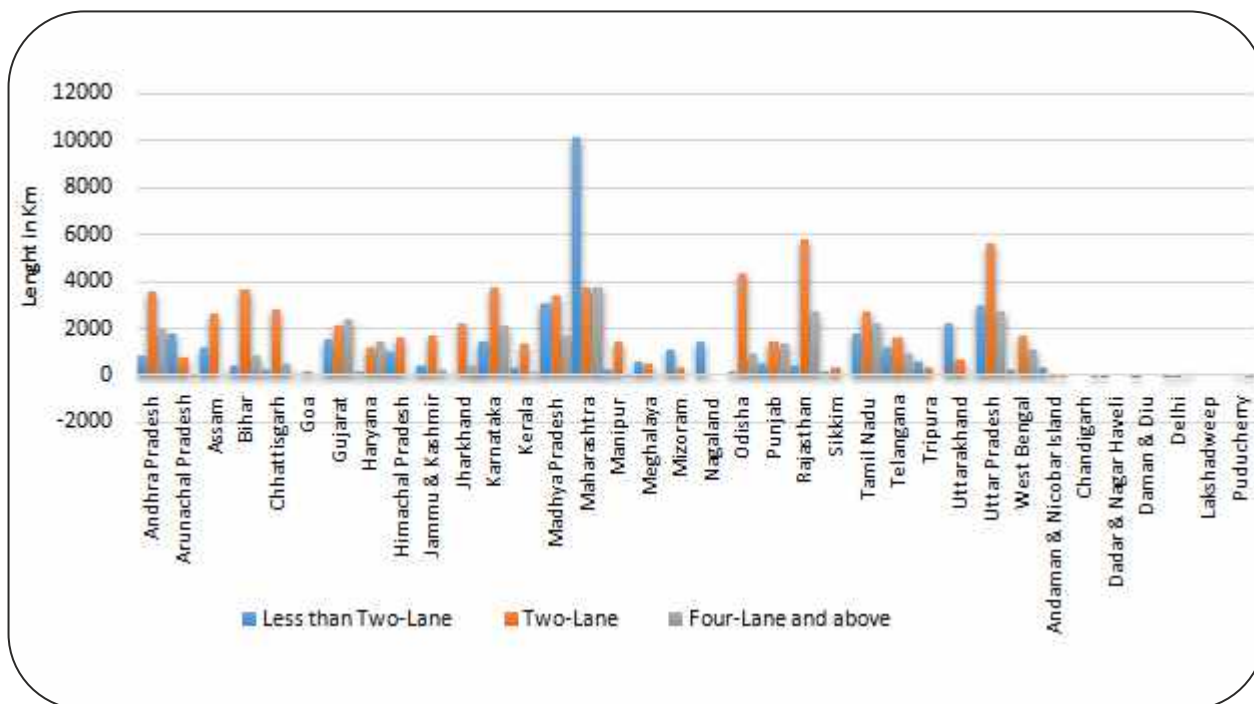
**Chart 2.2: Per cent share of various categories of Lane to Total (as on 31st March 2018)**



2.8 In the category of Lane wise length of National Highways, Maharashtra ranks first in two different categories of National Highways i.e. in “less than two lane” with a total length of 10170 Km and in “Four-Lane and above” with a total of 3779 Km

(Annexure 2.2). Rajasthan with total of 5770 Kms takes the first place in “Two-Lane” category of National Highway (Annexure 2.2 refer to). Lane wise breakup of National Highways is at Annexure 2.2.

**Chart 2.3: Lane wise Length of National Highways as on 31.03.2018 across State/UTs**

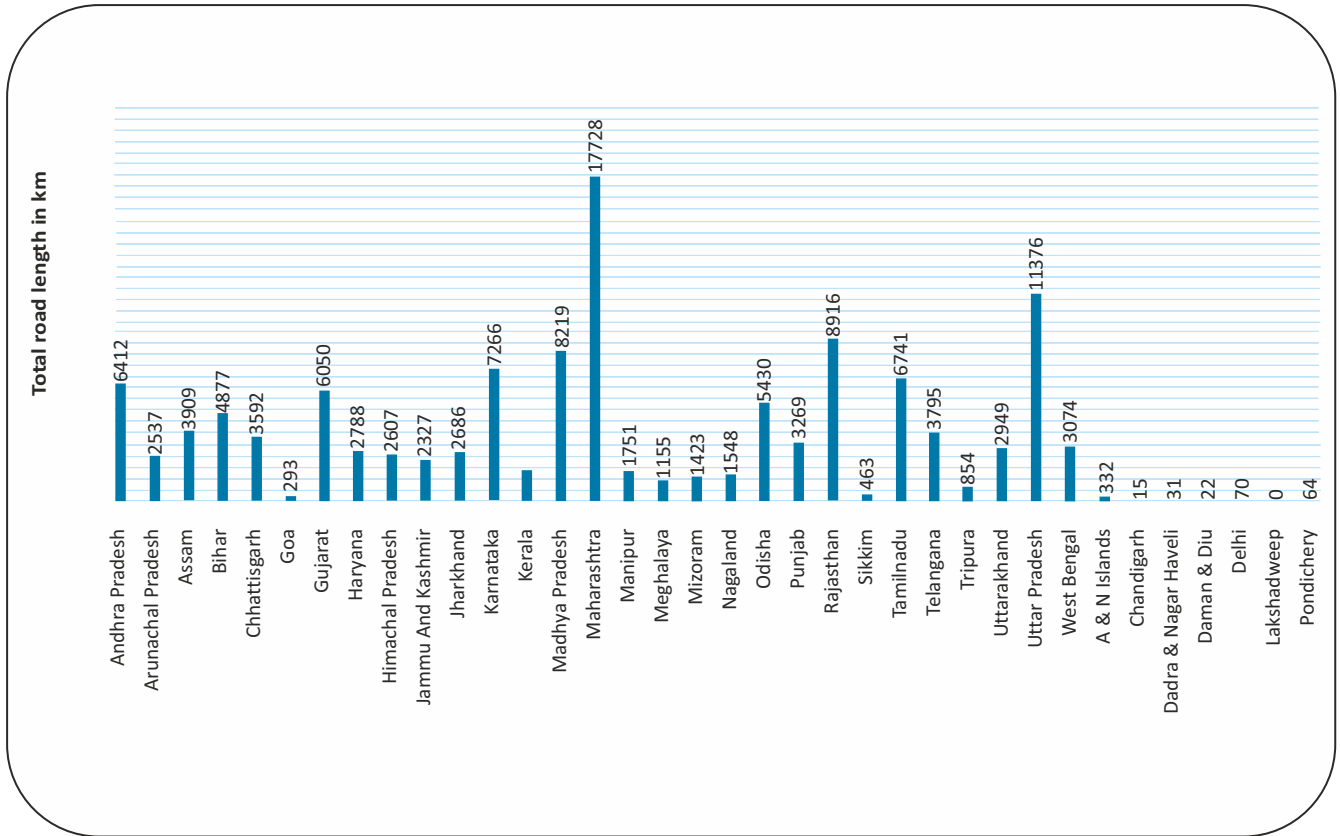


**National Highway Network: State/UT wise Share**

2.9 State/UT's Share of National Highways amongst other factors depends on the geographical area. Top 5 States shares about 42.35 per cent of National Highways network in the country. Maharashtra has the highest NH network in 2017-18 with 17,728 km (14.03 %) followed by Uttar

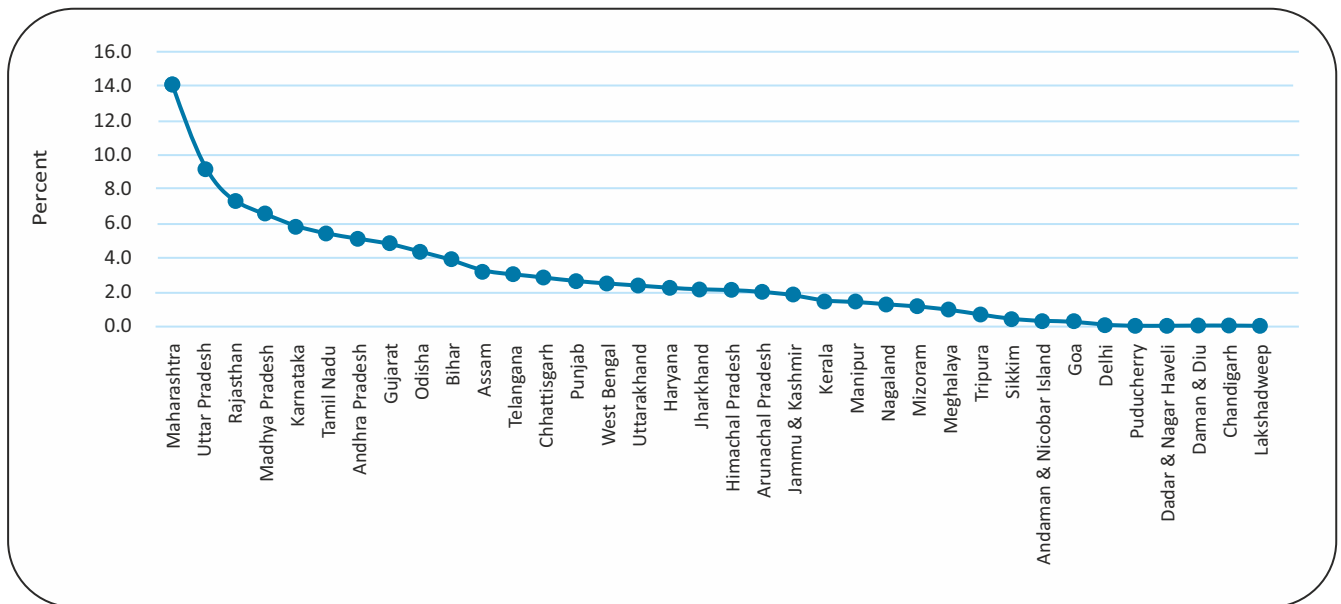
Pradesh and Rajasthan with 11,376 km (9.0 %) and 8916 km (7.06 %) respectively (Charts 2.4 and 2.5 refer to). Madhya Pradesh with 8219 km (6.50%) and Karnataka 7266 km (5.75%) rank fourth and fifth respectively. The State/UT wise breakup of length of National Highways is at Annexure 2.1.

**Chart 2.4: The State/UT wise Length of National Highways as on 31.03.2018**



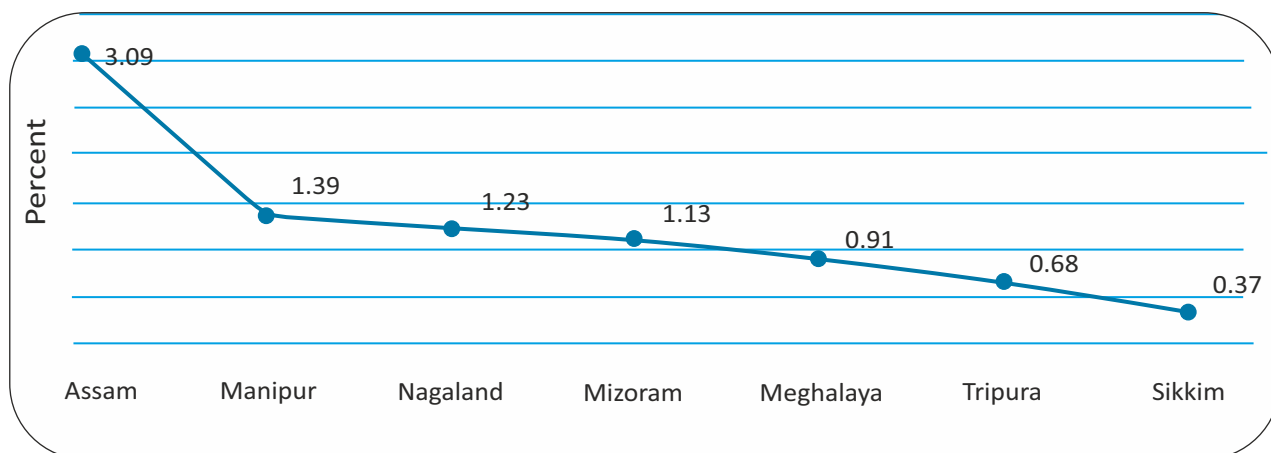
Source: Road Wing, MoRTH

**Chart 2.5: Share of States/UTs in Length of National Highways as on 31.03.2018 (Descending Order)**





**Chart 2.6: Share of North Eastern States in the length of National Highways as on 31.03.2018**



### Major Programmes/ Schemes of Highway Development

2.10 Bharatmala Pariyojna and National Highways Development Project (NHDP) are the largest Highways Project ever undertaken in the country since 2000. The Bharatmala and NHDP is mainly being implemented by National Highways Authority of India (NHAI).

2.11 **National Highway Development Programme** – This programme has been implemented through 7 phases from 1998 to 2017 targeted for construction of about 55,000 km of road. National Highway Authority of India (NHAI) is mandated to implement National Highways Development Project (NHDP) which is India's largest ever Highways Project in a phased manner. Under the programme major initiatives to upgrade and strengthen National Highways includes construction of Golden Quadrilateral (GQ), North-South and East-West Corridors (NS-EW),

Port Connectivity roads, Expressways, ring roads, bypasses, grade separators, flyovers, elevated roads and tunnels.

2.12 **Bharatmala” Pariyojana** – This umbrella programme for the highway sector focuses on optimising efficiency of freight and passenger movements across the country. Programme aims to bridge the critical infrastructure gaps like development of Ring Roads, Bypass, elevated corridors, etc. in the areas of intense economic activity, place of religious and tourist interest, border areas, backward/tribal areas, trade route etc. Bharatmala Pariyojana Phase I is in the implementation stage. Under the scheme Ministry proposed for construction of 34, 8000 km at a cost of Rs 5, 35,000 crore (refer to Table 2.4) which is targeted for completion by 2021-22. An outline of Bharatmala Pariyojana is presented at **Map No.2**

**Table 2.4: Scope of Bharatmala Pariyojana-Phase I**

| S.No.         | Components                                  | Length -Km    | Outlay -Rs crore |
|---------------|---|---------------|------------------|
| 1             | Economic corridors development              | 9,000         | 1,20,000         |
| 2             | Inter-corridor & feeder roads               | 6,000         | 80000            |
| 3             | National Corridors Efficiency improvements: | 5,000         | 100,000          |
| 4             | Border & International connectivity roads   | 2,000         | 25,000           |
| 5             | Coastal & port connectivity roads           | 2,000         | 20,000           |
| 6             | Expressways                                 | 800           | 40,000           |
| <b>Total:</b> |   | 24,800        | 385000           |
|               | Balance road works under NHDP*              | 10,000        | 1,50,000         |
| <b>Total</b>  |   | <b>34,800</b> | <b>5,35,000</b>  |

\*-balance works under various phases of National Highways Development Project (NHDP) shall be fully subsumed under the proposed Bharatmala Pariyojana, to remove overlap and undertake comprehensive development. Balance works under NH (O), SARDP-NE, EAP & LWE schemes would continue under relevant schemes.

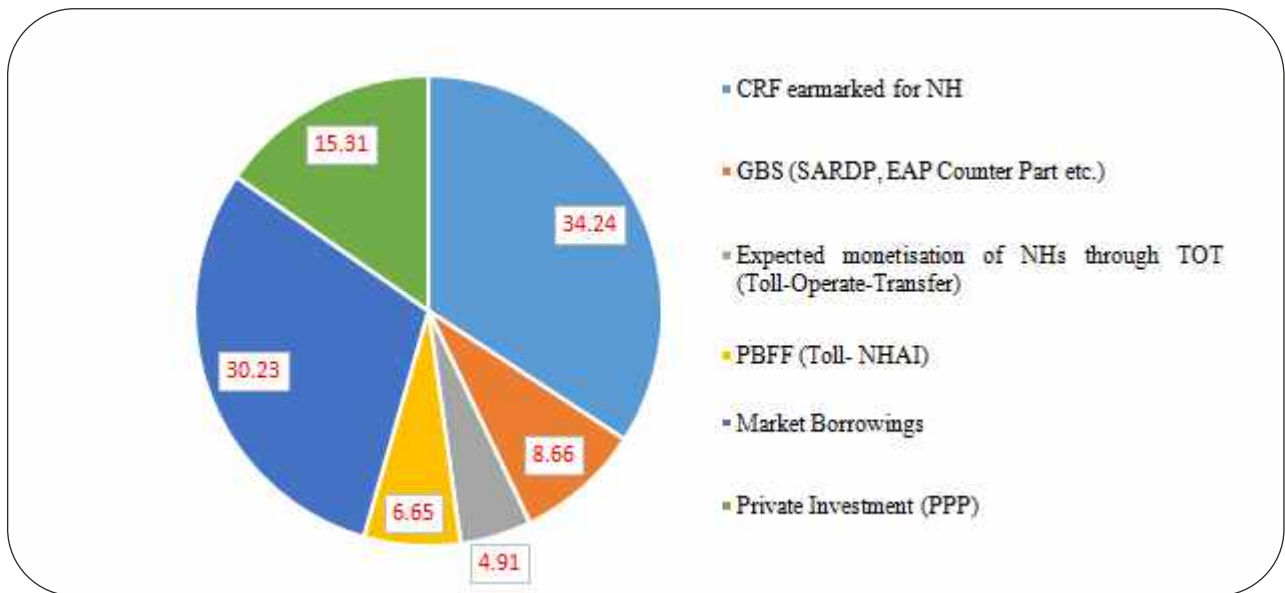
2.13 **Financing Plan** – Financing plan implies the source of Fund up to 2021-22 for Phase-I of Bharatmala Pariyojna and other schemes for development of roads/ NHs are as follows:

**Table 2.5: Financing Plan of Bharatmala Pariyojna – Phase I**

| S. No.       | Source   | Estimated fund (Rs. Crore) |
|--------------|--|----------------------------|
| 1            | CRF earmarked for NH   | 2,37,024                   |
| 2            | GBS (SARDP, EAP Counter Part etc.)                               | 59,973                     |
| 3            | Expected monetisation of NHs through TOT (Toll-Operate-Transfer) | 34,000                     |
| 4            | PBFF (Toll- NHAI)  | 46,048                     |
| 5            | Market Borrowings  | 2,09,279                   |
| 6            | Private Investment (PPP)   | 1,06,000                   |
| <b>Total</b> |  | <b>6,92,324</b>            |

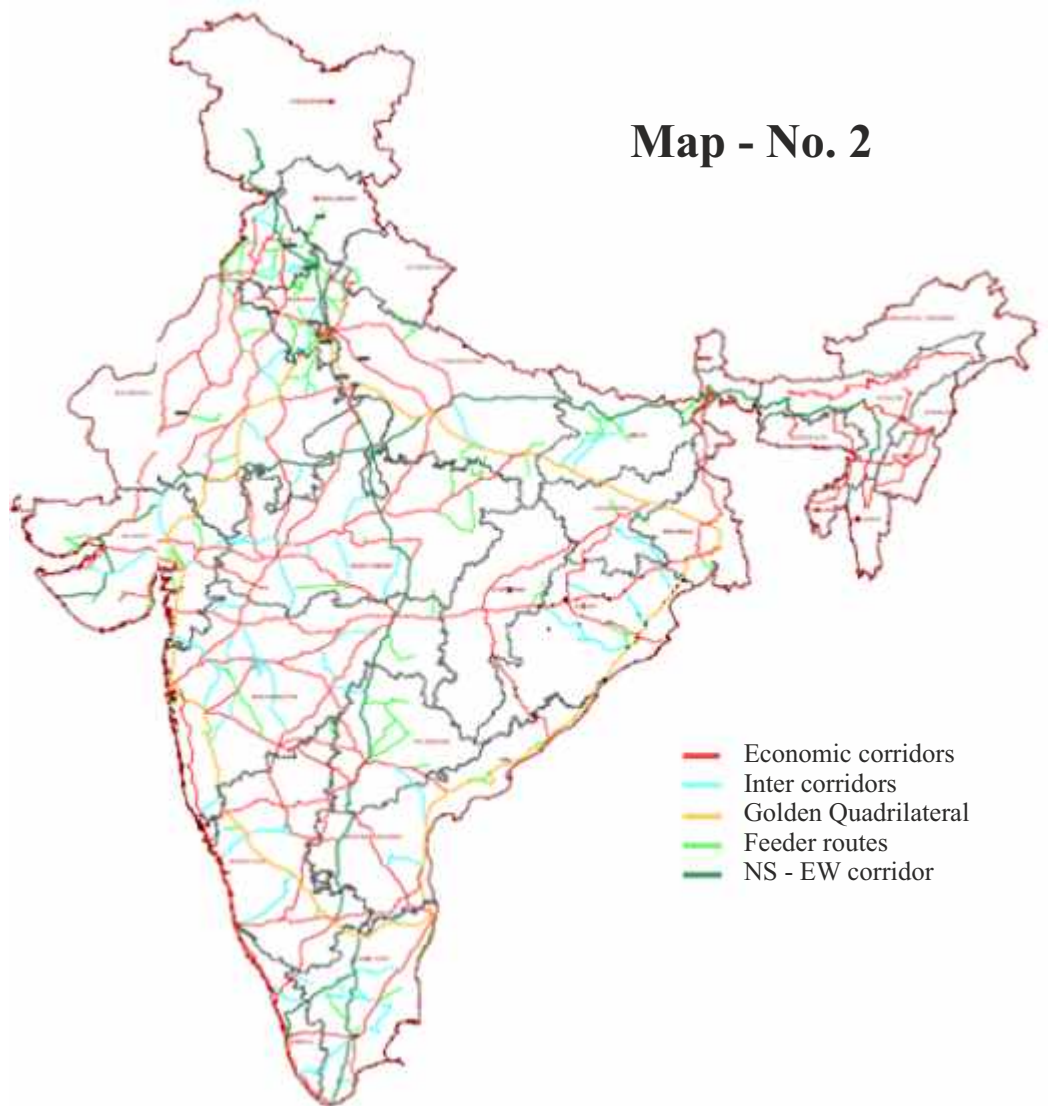
Source: MoRTH

**Chart 2.7 Source of Fund up to 2021-22 for Phase-I of Bharatmala Pariyojana**



2.14 It may be noted from the Chart 2.7 that Market Borrowings and CRF earmarked for NH constitute more than sixty percent of source of fund for implantation Bharatmala Pariyojna Phase I project. Private investment (PPP) also shares considerable part of fund (15.31%) as seen in Chart 2.7.

**Map - No. 2**



2.15 The year wise details of Award of NHs/Road Projects and construction of NHs/ Road under the various schemes of the Ministry are given below: - Award and construction of NHs has been increasing consistently (Chart 2. 8) during the period

2012-13 to 2017-18. Road construction in Km per day also increasing since 2014 (Table 2.6) reveals the positive impact of comprehensive policies Government of India on road transport sector.

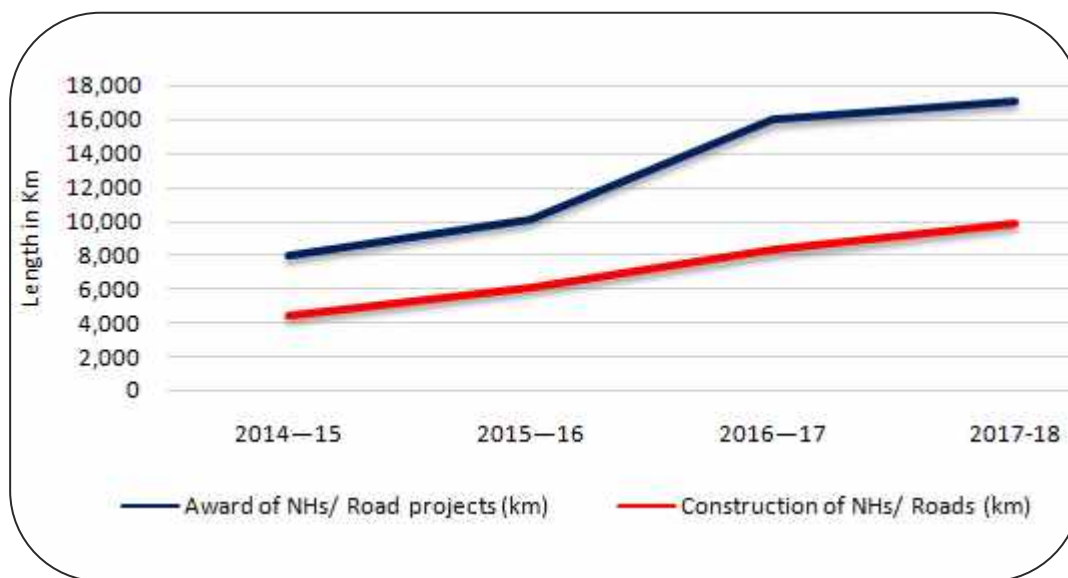
**Table 2.6: Award of NHs/Road Projects and construction of NHs/ Road**

|                               | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 |
|-------------------------------|---------|---------|---------|---------|---------|---------|
| Awarded Length (Km)           | 1,916   | 3,196   | 7,972   | 10,098  | 15,948  | 17,054  |
| Year on Year Growth           |         | 67      | 149     | 27      | 58      | 7       |
| Length Constructed (KM)       | 5,732   | 4,260   | 4,410   | 6,061   | 8,231   | 9,829   |
| Year on Year Growth (%)       |         | -26     | 4       | 37      | 36      | 19      |
| Road Constructed per day (Km) |         |         | 12      | 17      | 23      | 27      |

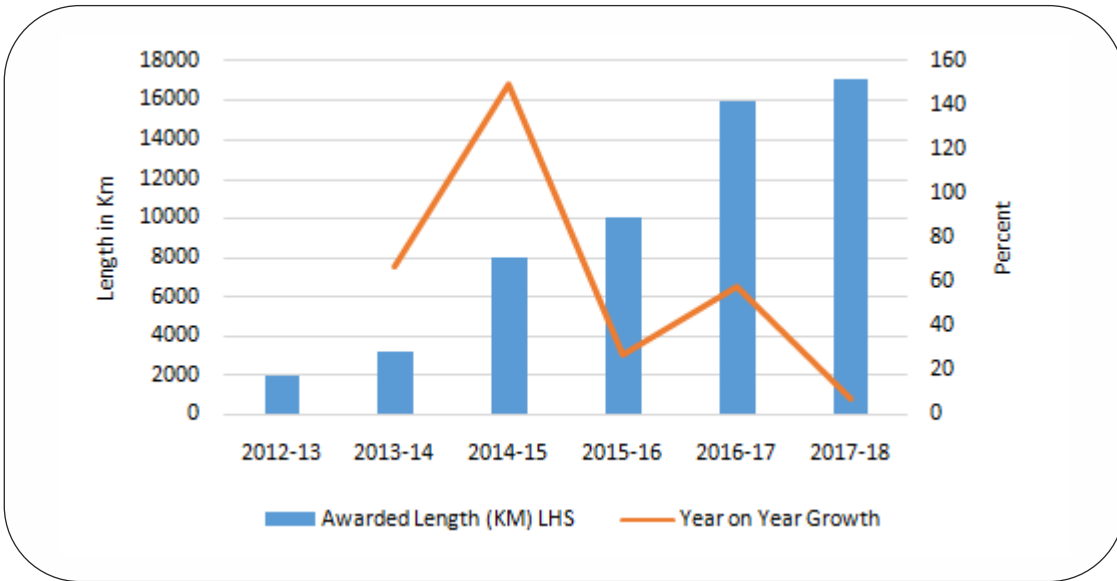
2.16 In the Chart 2.8, the total length awarded and constructed both are showing upward trend and almost moving parallel, however in Chart 2.9 and Chart 2.10 the year-on-

year growth of NH length constructed and awarded depicting mixed trend particularly moving downward after 2016-17.

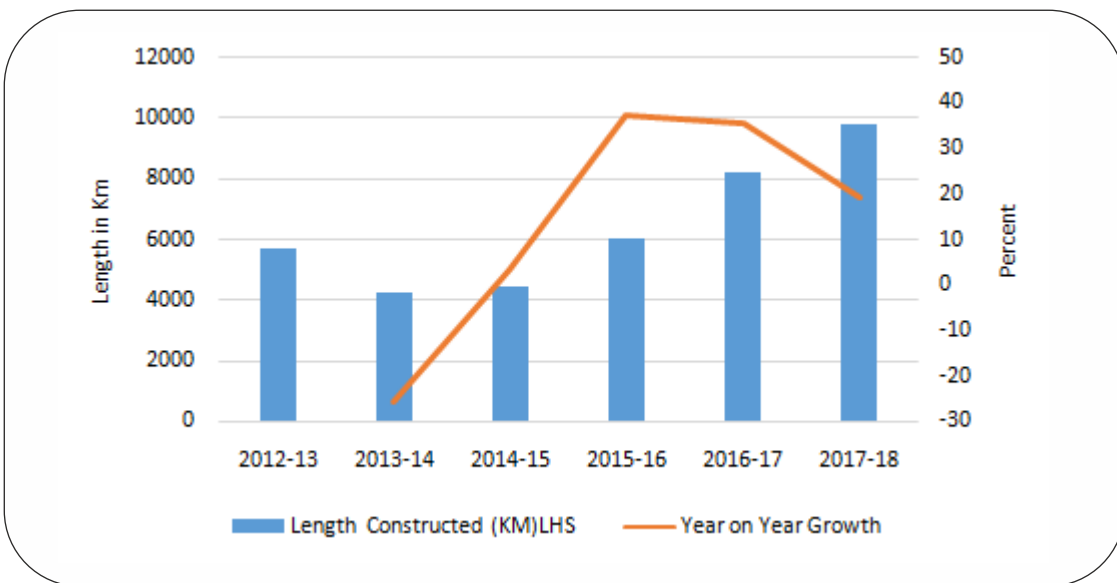
**Chart 2. 8: Trend of Award and Construction of National Highways**



**Chart 2.9 Awarded Length (Km) for the period 2012-13 to 2017-18**



**Chart 2.10 Constructed Length (Km) for the period 2012-13 to 2017-18**



**Major Initiatives**

2.17 To strengthen and improve the quality of public transport system in the country the MoRTH has initiated several measures.

- Online application facility for issue of NOC for Retail outlets and issuing permission for OFC cables.
- Implemented of e-payment system or

online direct payment procedure at Regional Offices.

- Web based Monitoring of National Highways project.
- Ministry has developed and inaugurated a web portal for giving permission for movement of Hydraulic Trailers up to HT-3 category. This will facilitate the real time basis permission for movement of

Hydraulic Trailers on NH. This also facilitate smooth and timely movement of heavy equipment.

- Ministry launched a skill development programme for women in the highway construction sector on 22.12.2017 at New Delhi which targeted train over 1 lakh women by July, 2018.

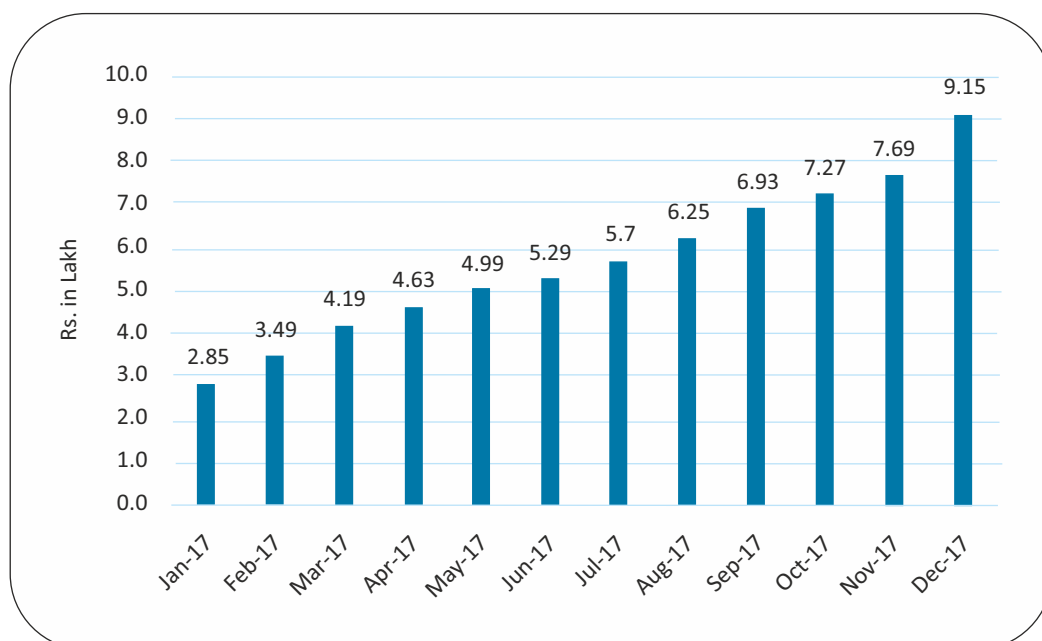
2.18 E- Initiatives- Project Monitoring Information System (PMIS) is a value addition to the sector. By using Information Technology (IT) enabled system, about 2000+ NH projects are being effectively monitored on a regular basis.

2.19 Electronic Toll Collection (ETC) system, has been implemented on pan India basis in order to remove bottlenecks and ensure seamless movement of traffic and collection of user fee as per the notified rate, using Passive Radio Frequency

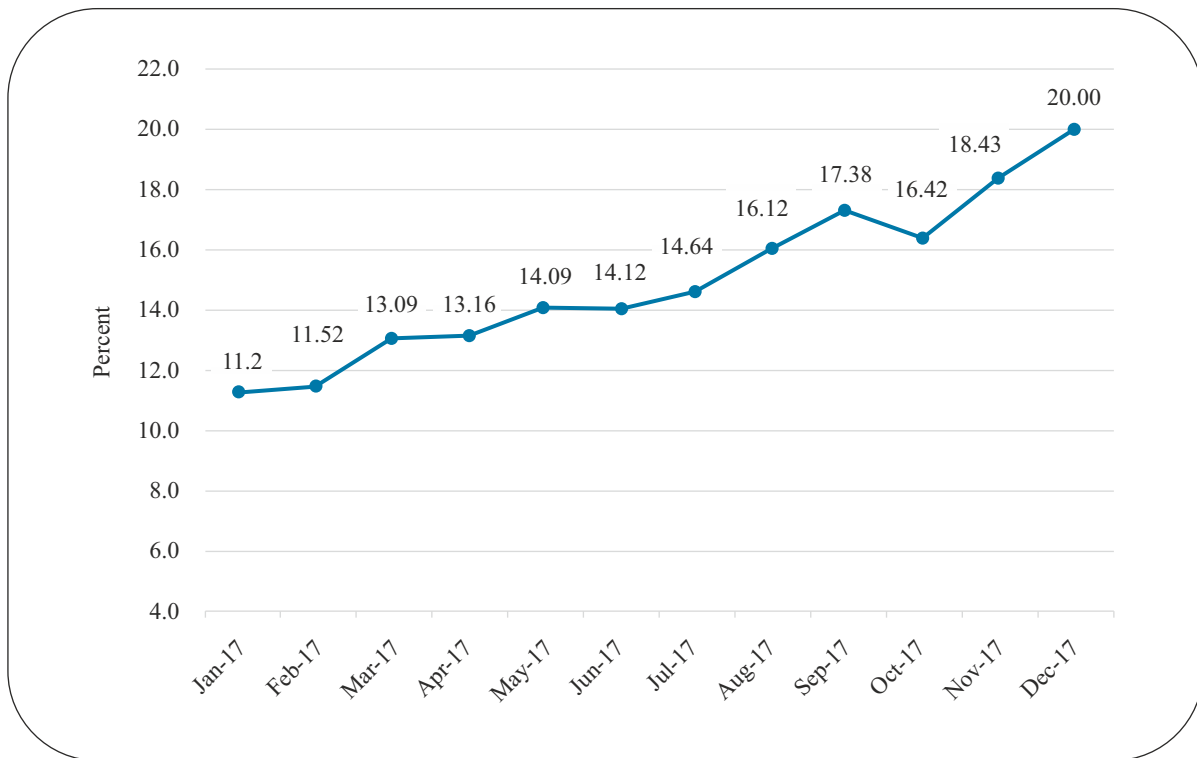
Identification (PRFI) technology. To incentivize road users for use of FASTag a cashback of 7.5 % has been offered for the year 2017-18. In addition to FASTag, other electronic means such as PoS machines (payment of fee through credit and debit cards), Pre-paid Payments Instruments etc have also been employed to enable road users for payment of user fees.

2.20 As on 31.12.2017, 9.15 lakh FASTag unit have been issued and user fees collected has also increased significantly. All vehicles being manufactured /sold after 1<sup>st</sup> December, 2017 affixed with the FASTag by vehicle manufacturer or authorised dealer, in order to enhance the penetration and usage of FASTag among road users. Monthly collection of User fee for the year 2017 presented in the Chart 2.11 depict increasing trend.

**Chart 2. 11 Progress of FASTag Issuance (Rs in Lakh)**



**Chart 2 .12 Percent of User Fee collected through FASTag (Month on Month)**



2.21 In the Charts 2.11 & 2.12, depicting respectively the progress of FASTag Issuance (Rs in Lakh) and Percent of User Fee collected through FASTag (Month on Month), showing an increasing trend . This implies that FASTag is becoming popular among the drivers as it not only saves precious time of travellers while travelling but also gives relief from cash transaction and promotes digital transactions.

### **Road Safety**

2.22 India is committed to bringing down fatalities from road accidents by 50 percent by 2030 as a signatory to the Stockholm declaration. Road accidents are multi-causal which requires multi-pronged measures to mitigate road accidents

through concerted efforts of all Government agencies both at the Centre as well as at the State. Ministry is increasingly concerned about the rapid escalation of the road safety crisis in the country and has formulated a comprehensive National Road Safety Strategy to address the issue of road safety. This provides the framework for National collaboration on road safety improvement and allow for a move towards VISION ZERO. This strategy covered themes on Education, Publicity and awareness campaigns, Engineering (both of roads and vehicles), Enforcement and Emergency Care. Various road safety interventions taken up by the Ministry across themes are as follows.

- **Integrated Road Accident Database (IRAD)** - comprehensive road accident database management system developed and being implemented with the help of Indian Institute of Technology, Madras, NIC and supported by World Bank. This will enable the Centre and the States to comprehend the information related to road accidents, analyses the root cause of road accidents and to develop and implement 'data-led' road safety interventions to reduce accidents. The IRAD is currently planned to be piloted in 6 State.
- **Driver Training** - Government is taking steps to strengthen the system of driver licensing and training to improve the competence and capability of drivers. Institute of Driving Training and Research (IDTR) are being established by GoI for setting standards and monitoring driver training and issue of driving license based on an objective scientific process of testing skills. Regional Driving Training Centre (RDTC) are Tier -II centres, with minimum land requirement of 3 acres with basic support infrastructure including testing tracks. These are expected to be setup and operated by the private sector on a PPP mode with the State Government. Driving Training Centres (DTC) are planned to be established at district level to provide quality training to commercial vehicle drivers to improve road and environment safety and strengthen overall mobility on roads. Guidelines for the scheme has also been issued by MoRTH.
- **Publicity and Awareness Campaigns** - Spreading Awareness through TV, Films, Radio Spots and Print media: The Government has been undertaking various publicity measures in the form of telecasting on T.V, Radio, Cinema, printing calendars with road safety messages and also conducting seminars & exhibitions on road safety with messages for various segments of road users viz. Pedestrians, cyclists, school children, heavy vehicle drivers, etc. Ministry has sponsored State Governments to conduct Road Safety Awareness Workshops for sensitization of stakeholders on road safety. Ministry has decided to engage NGOs and all Stakeholders such as State Government, Corporate houses, Auto industry and their associations, Universities, and the society at large to create awareness about road safety among general public. The Ministry observes National Road Safety Week every year with the objective of creating awareness on road safety.
- **Research in Road Safety** - The Government encourages increased activity in programmes of road safety research by identifying priority areas, funding, and research in those areas adequately and establishing centers of excellence in research and academic institutions. The Government will facilitate dissemination of the result of research and identified examples of Good practice through publication, training, conferences, workshops and websites.



2.23 Due to consistent efforts, there has been a significant decrease in road accident and number of persons killed which declined from 3.2 percent in 2016-17 to 1.9 percent

in 2017 -18 (Table 2.7). This indicates improvement in the quality of roads available for public use.

**Table 2.7 Trend of Road Accidents and No of Persons Killed**

| Parameter             | 2016     | 2017     | % Change over Previous Year |
|-----------------------|----------|----------|-----------------------------|
| No. of Road Accidents | 4,80,652 | 4,64,910 | -3.2                        |
| No. of Persons Killed | 1,50,785 | 1,47,913 | -1.9                        |

### Fund allocation and Expenditure

2.24 Details of fund allocated and expenditure for Development and Maintenance of National Highways during FY 2012-13 to 2017-18 is present in the Table 2.6 below. Public investment on road has been increasing during the period 2012-13 to

2017-18 except for the year 2014-15 whereas private investment which is low compared public investment has been showing mixed trend. Noted that during the period 2012-13 to 2017-18, allocation of fund is lower than expenditure except for 2016-17.

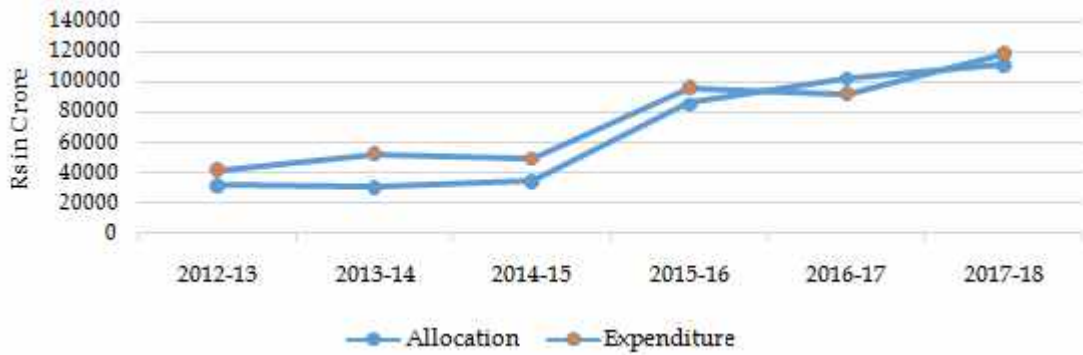
**Table 2.8 Fund Allocated and Expenditure for Development and Maintenance of National Highways**

(Rs. in Crore)

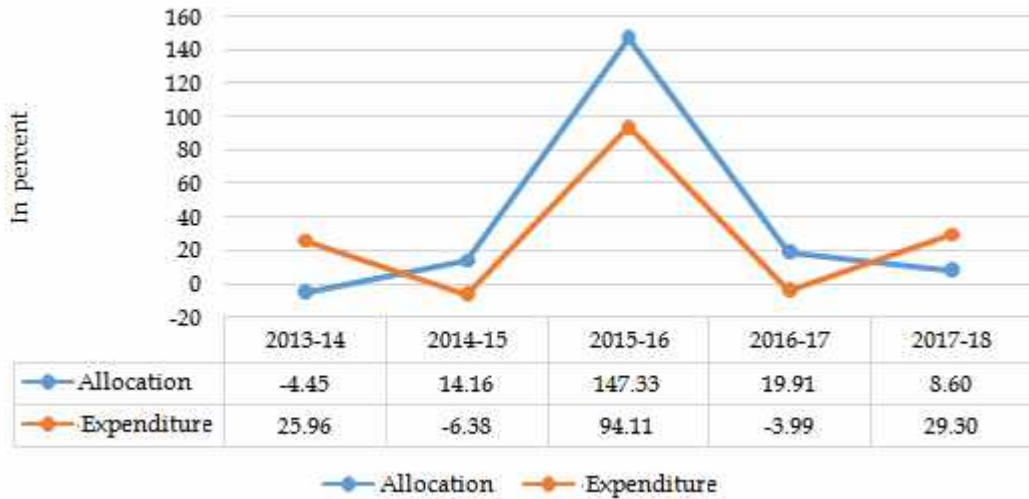
| Year    | Allocation* | Y-o-Y growth | Expenditure |              |             |              |             |              | Allocation as % of Expn |
|---------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------------------|
|         |             |              | Private     | Y-o-Y Growth | Public*     | Y-o-Y Growth | Total       | Y-o-Y Growth |                         |
| 2012-13 | 32,011.46   |              | 20,304.66   |              | 21,693.74   |              | 41,998.40   |              | 76.22                   |
| 2013-14 | 30,587.57   | -4.45        | 22,515.05   | 10.89        | 30,385.64   | 40.07        | 52,900.69   | 25.96        | 57.82                   |
| 2014-15 | 34,918.32   | 14.16        | 19,232.44   | -14.58       | 30,295.26   | -0.30        | 49,527.70   | -6.38        | 70.50                   |
| 2015-16 | 86,363.32   | 147.33       | 29,770.00   | 54.79        | 66,369.14   | 119.07       | 96,139.14   | 94.11        | 89.83                   |
| 2016-17 | 1,03,556.70 | 19.91        | 16,028.64   | -46.16       | 76,275.01   | 14.93        | 92,303.65   | -3.99        | 112.19                  |
| 2017-18 | 1,12,464.40 | 8.60         | 16,500.64   | 2.94         | 1,02,852.38 | 34.84        | 1,19,353.02 | 29.30        | 94.23                   |

\* Include Internal and Extra Budgetary Resources (IEBR).

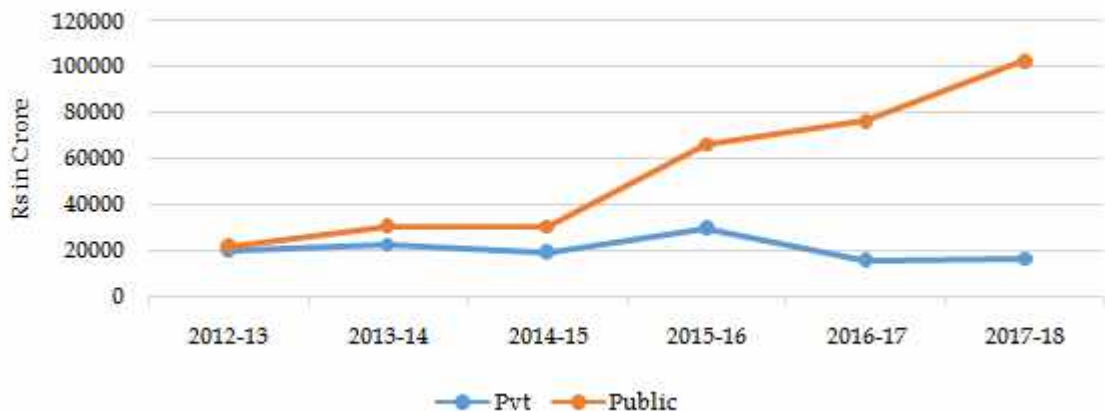
**Chart 2.13: Trend in the Growth of Fund Allocation and Expenditure (Rs. in Crore)**



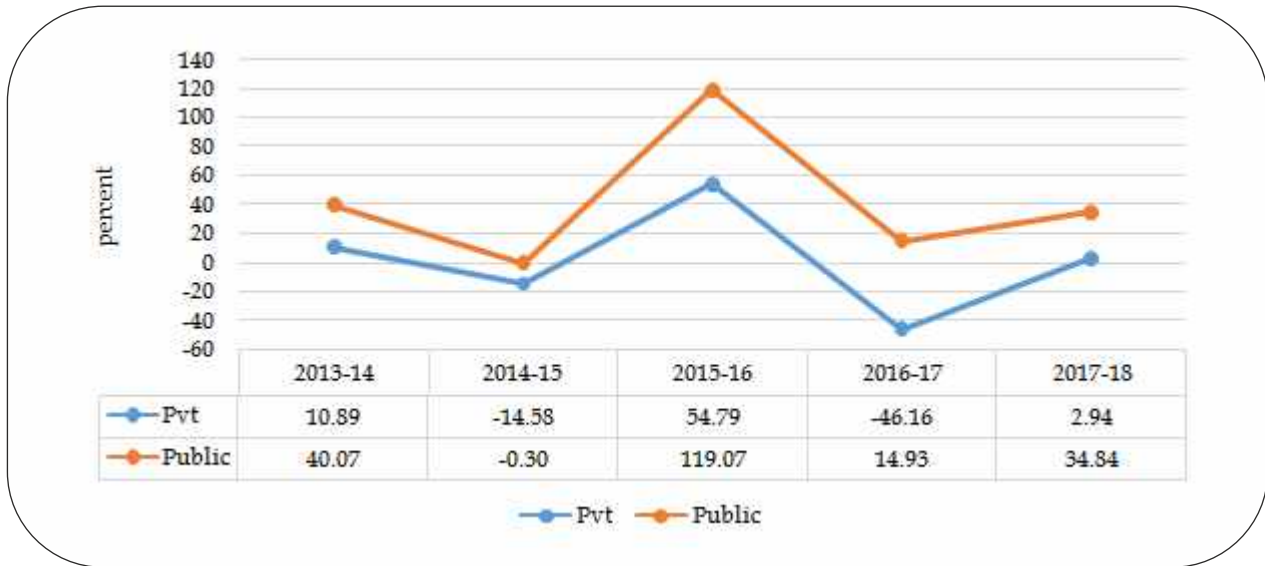
**Chart 2.14: Year on Year Growth of Fund Allocation and Expenditure (in Percent)**



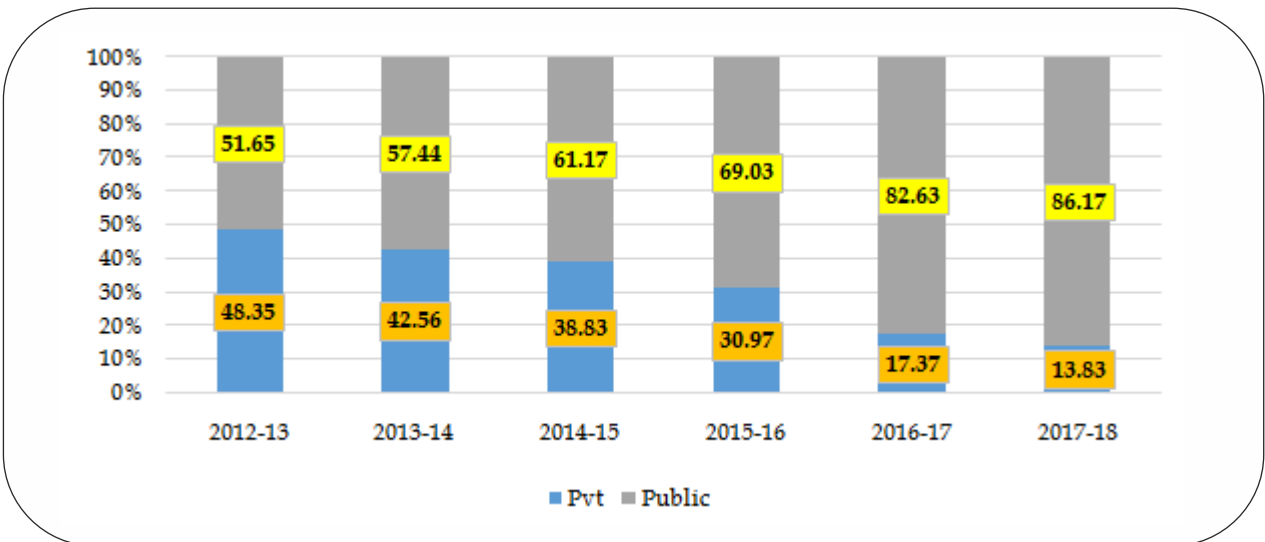
**Chart 2.15: Trend in the Growth of Private and Public Investment in Road Sector (Rs. in Crore)**



**Chart 2.16: Year on Year Growth of Private and Public Investment in Road Sector (in Per cent)**



**Chart 2.17: Share of Private and Public Investment in Total Investment (in percent)**



2.29 Chart 2.15 reveals public investment in road sector has been increasing over the period 2012-13 to 2017-18 whereas that of Private sector depicting declining trend. Similarly, the with respect to the percent share, private investment's share to total investment has drastically declined to

13.83 percent compare to public investment with share of 86.17 percent in 2017-18. The share of Public investment to total investment depicting increasing trend over the period from 2012-13 to 2017-18.

# Section - 3

## Section – 3

### Expressways

3.1 Expressways offer superior highway facility with higher specifications. It provides for more lanes, better surface, divided carriageway, controlled access grade separations at cross-roads and fencing etc. Expressways permits only fast moving vehicles and are meant to carry through traffic. The Expressway may be owned by the Central Government or State Government depending upon whether the route is a National Highway or a State Road.

3.2 NHAI has planned to develop 2,638 km of expressways out of which 237 km of expressways have already been completed and 1,344 km of Expressways are currently under implementation while the remaining 1,057 km of Express ways are currently at various stages of pre-construction. The details of completed and ongoing Expressways by NHAI are given in Table 3.1.

**Table 3.1: Details of Completed and Ongoing Expressways by NHAI**

| S. No.   | Corridor                                       | Length (km)  |
|--|--|--------------|
| Completed Expressways before BM                    |  |              |
| 1  | Ahmadabad Vadodara Expressway                  | 93           |
| 2  | Eastern Peripheral Expressway                  | 135          |
| 3  | Delhi-Meerut Expressway (Package 1)            | 9            |
| <b>Total Completed</b>                             |  | <b>237</b>   |
| Expressways currently Under Implementation         |  |              |
| 1  | Delhi-Meerut Expressway (Remaining)            | 51           |
| 2  | Delhi - Mumbai (Delhi - Vadodara Section) EXP  | 846          |
| 3  | Delhi - Mumbai (Vadodara - Mumbai Section) EXP | 447          |
| <b>Total Under Implementation</b>                  |  | <b>1,344</b> |
| Expressways at Pre-Construction Stage              |  |              |
| 1  | Ahmadabad - Dholera EXP                        | 110          |
| 2  | Delhi - Amritsar - Katra EXP                   | 600          |
| 3  | Bengaluru - Chennai EXP                        | 272          |
| 4  | Kanpur - Lucknow EXP                           | 75           |
| <b>Total Expressways at Pre-Construction Stage</b> |  | <b>1,057</b> |
| <b>Grand Total</b>                                 |  | <b>2,638</b> |

Source: Planning, MoRTH

**Table 3.2: Completed /Ongoing Expressway Projects by UPEIDA**

| S. No. | Name of Expressway                            | No. Of Lanes         | Start Place  | End Place  | Length in KMs | Current Status  |
|--------|---|----------------------|--|--|---------------|---|
| 1      | Agra –Lucknow<br>[Green field]                | 6 expendable<br>to 8 | Agra inner<br>Ring Road  | Near village<br>Sarosabharosa<br>District<br>Lucknow at<br>Highway40       | 302.2         | Constructed<br>during 2014-<br>2016, under use<br>of public traffic |
| 2      | Purvanchal<br>Expressway<br>[Green field]     | 6 expendable<br>to 8 | Village<br>Chandsaraya<br>District<br>Lucknow at<br>NH731                                  | Village<br>Haideyia<br>District<br>Ghazipur at<br>NH31                     | 340.82        | Construction<br>started since<br>10/10/2018                         |
| 3      | Bundelkhand<br>Expressway<br>[Green field]    | 4 expendable<br>to 6 | Bharatkoop<br>District<br>Chitrakoot at<br>NH35  | Village Kudrail<br>District Etawah<br>at Agra<br>–Lucknow<br>Expressway    | 296.07        | Construction<br>started<br>sine15/01/2020                           |
| 4      | Gorakhpur link<br>Expressway<br>[Green field] | 4 expendable<br>to 6 | Village<br>Jaitpur<br>District<br>Gorakhpur at<br>NH 27                                    | Village<br>Salarpur<br>District<br>Azamgarh at<br>Purvanchal<br>Expressway | 91.35         | Construction<br>started since<br>10/02/2020                         |
| 5      | Ganga Expressway<br>[Green field]             | 6 expandable<br>to 8 | Chainage<br>56+520 of<br>proposed<br>Dasana<br>–Meerut<br>Expressway<br>District<br>Meerut | Village<br>Khemadpur<br>District<br>Prayagraj at NH<br>2                   | 603           | DPR under<br>preparation  |

Source: UPEIDA

# Section - 4

### State Highways

4.1 State Highways together with major District roads constitute the secondary system of road transportation in the country. State highways are broader road network connecting major cities through-out a state. They also connect with National Highways or State Highways of neighbouring States. The State Highways provide links with NHs, District Headquarters of State, important towns, tourist centres and minor ports. State Highways are designated with SH, followed by the highway number and preceded by State code. These roads are administered and financed by State Governments through the State Public Works Departments (PWDs).

#### Overview: State Highways

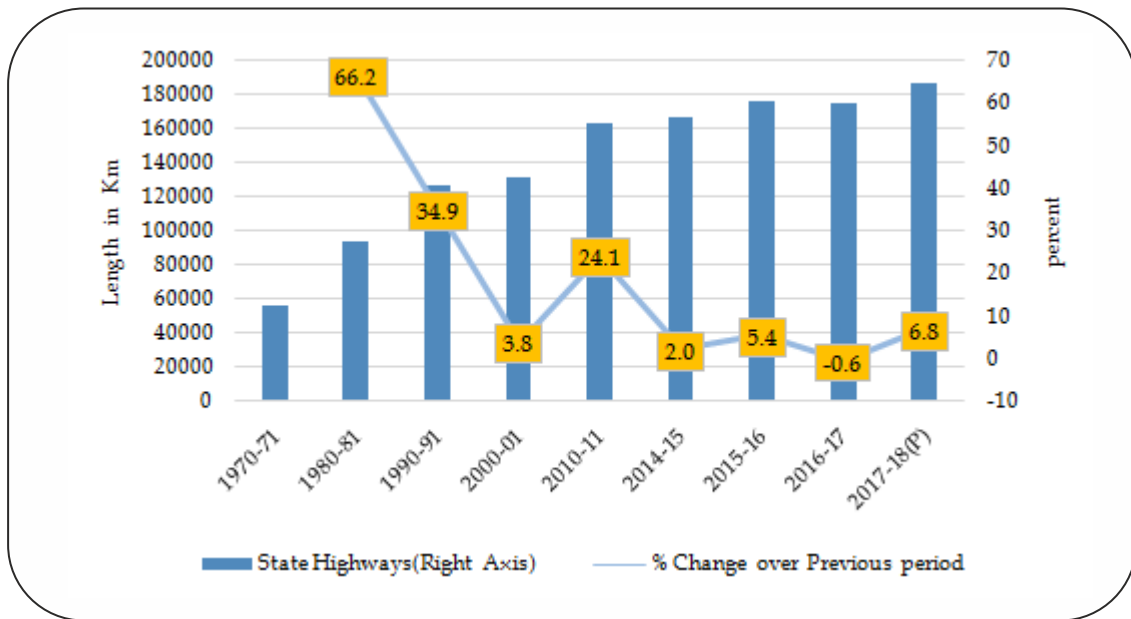
4.2 The length of State Highways has been increasing over the years due to the comprehensive policy initiatives of State/UT Governments across country. The growth of length of State Highways since 1970-71 is presented in in Table 4.1 and trend of growth and percent change over previous period is presented in the Chart 4.1 below. The trend of growth of State Highways has been increasing during the period 1970-71 to 2017-18 (Chart4.1 refer to). However, percent change in the growth of State Highways over previous period depicts mixed trend and there has been a significant increase in growth from -0.6 percent in 2016-17 to 6.8 in 2017-18.

**Table 4.1: Growth of State Highways 1970-71 to 2017-18**

| Category | Length in Km | % Share to Total Roads | % Change over Previous period |
|----------|--------------|------------------------|-------------------------------|
| 1970-71  | 56,765       | 6.2                    | -                             |
| 1980-81  | 94,359       | 6.4                    | 66.2                          |
| 1990-91  | 1,27,311     | 5.5                    | 34.9                          |
| 2000-01  | 1,32,100     | 3.9                    | 3.8                           |
| 2010-11  | 1,63,898     | 3.5                    | 24.1                          |
| 2014-15  | 1,67,109     | 3.1                    | 2                             |
| 2015-16  | 1,76,166     | 3.1                    | 5.4                           |
| 2016-17  | 1,75,036     | 3                      | -0.6                          |
| 2017-18  | 1,86,908     | 3                      | 6.8                           |



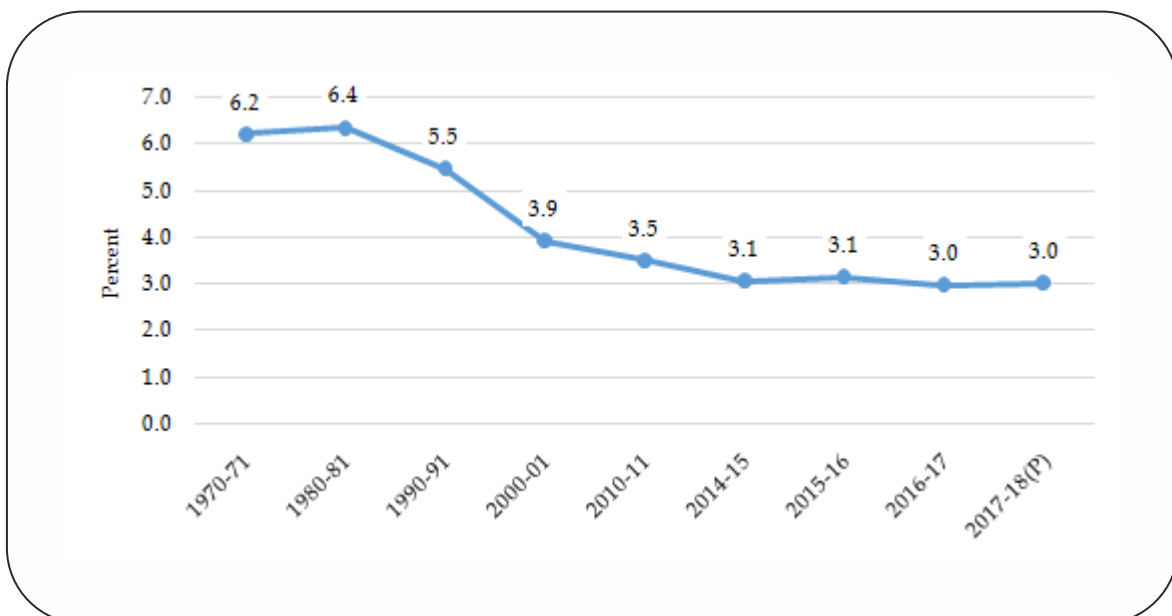
**Chart 4.1: Trend of Growth of length of State Highways and Percent change over previous period**



4.3 The Percent share of Length of State Highways in the Total Road Network has been declining over the years depicting almost stagnant trend since 2014-15 in Chart 4.3. This may primarily be on account of the proactive policy

initiatives/models of Ministry of Road Transport and Highways for development of Highway network in the country. State Highways are being converted to National Highways for better and strengthening public transportation system.

**Chart 4.2: Percent share of Length of State Highways in the Total Road Network**

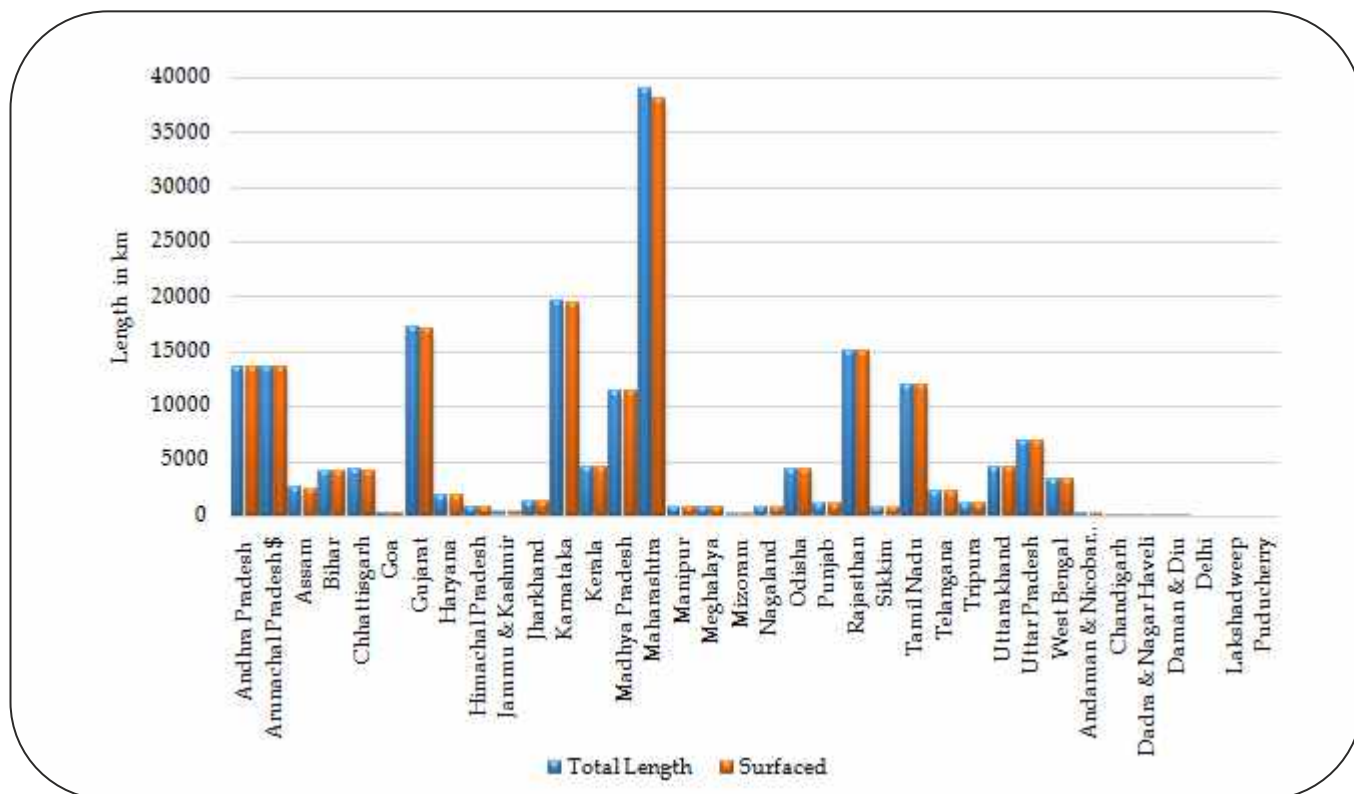


### State/UT wise details of State Highways

4.4 The total length of State Highways is 1,86,908 Km, as on 31<sup>st</sup> March, 2018 (in Table 4.1) which has attained an increase of about 6.8 percent over 2016-17. As on 31<sup>st</sup> March,

2018, about 99.2 percent of State highways are surfaced. It may also be seen in the Chart 4.2 that almost all States have fully surfaced State Highways.

**Chart 4.3: State/UT wise details of Total and Surfaced State Highways Length in Km as of 31st March, 2018**



4.5 It may be seen in Chart 4.2 that Maharashtra has the highest share in the total length of State Highway roads i.e. 20.87 per cent (38,999 Km) followed by Karnataka 10.44 per cent (19,521 Km), Gujarat 9.20 per cent (17,201 Km), Rajasthan 8.07 per cent (15,085 Km) and Andhra Pradesh 7.28 per cent (13,604 Km). These five States accounted for about 55.86% of the total length of SHs in the country. State/UT-wise break-up of State Highways is at **Annexure 3.1**.

4.6 Out of total length of State Highway roads (1,86,908 Kms) as on 31st March, 2018, about 99.24% of SH roads (1,85,495 Kms) were surfaced (**Annexure 3.2**). Out of total length of surfaced SHs, Bituminous Top (BT) and Cement Concrete (CC) roads accounted for about 99.33% and the remaining 0.67% were Water Bound Macadam (WBM) roads. The State/UT-wise break up of length of State Highways in India by type of surface is given in the **Annexure 3.2**.

# Section - 5

### District Roads

5.1 District roads are the strength of Rural Economy, these are key roads within a district, which connects Taluk headquarters and major rural areas to District headquarters. District Roads are constructed & maintained by Public Works Department of States and UTs. District roads along with the State Highways, account for the secondary system of road transportation in the country. District Roads comprised of Major District Roads (MDRs) and Other District Roads (ODRs) which provide connection between District and Taluk headquarters with the State highways and National Highways. These roads which run within districts contribute significantly to the economy and country's industrial development by connecting areas of production with markets and enabling

movement of raw materials and finished products. As per the classification of roads broadly the MDRs are to have a minimum width of 15 metres with traffic density of less than 10,000 PCUs but more than 5000 PCUs.

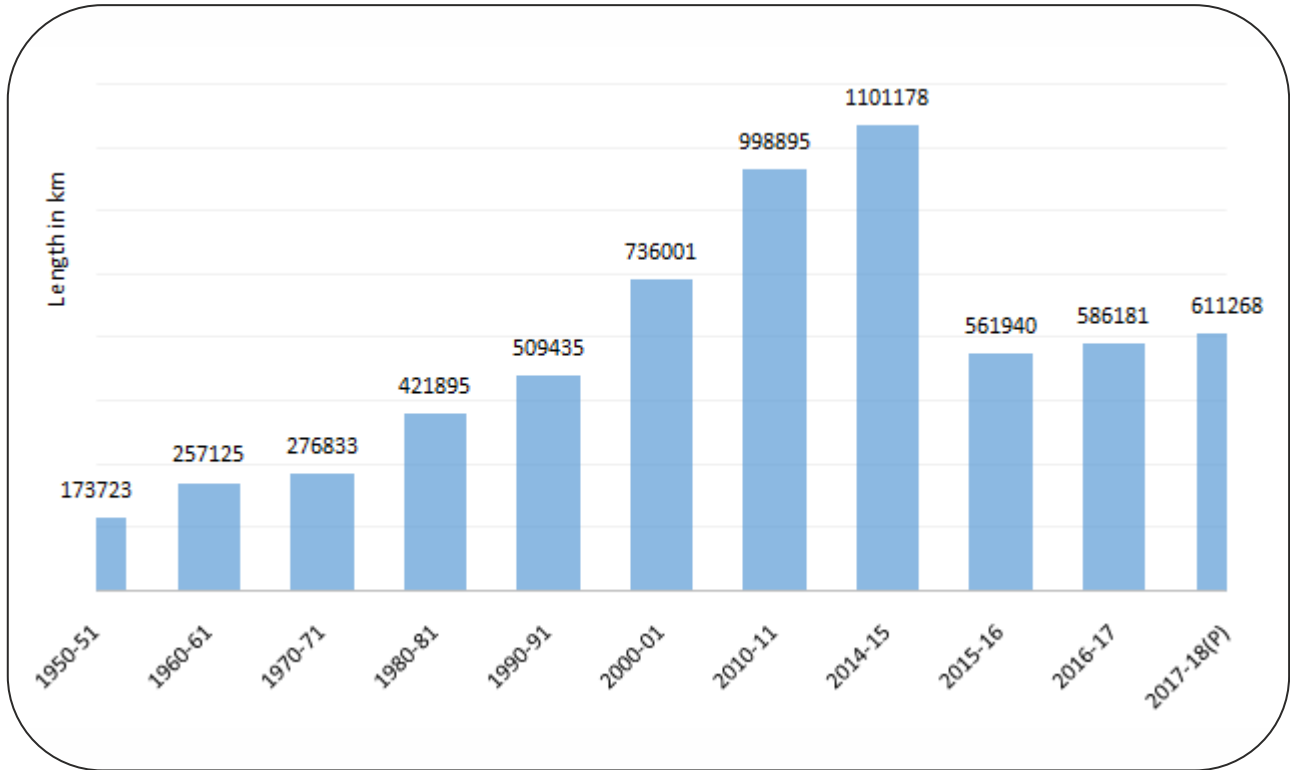
#### Overview: Districts Roads

5.2 The length of District Roads has been increasing till 2014-15, thereafter a sudden decline in 2015-16 (56,1940 Km) moved upward with 6,11,268 Km's of road length in 2017-18. District roads shares about 43.4 percent and 49.0 percent of total road network respectively in 1950-51 and 1960-61 (Table 5.1) is due to reason that it included State Highways. District roads stands second with share of about 9.83 percent of road length as on 31<sup>st</sup> March, 2018 (Table 1.1).

**Table 5.1: Growth of Districts Roads 1950-51 to 2017-18**

| Category | Length(Km) | % Share to Total Roads | % Change over Previous period |
|----------|------------|------------------------|-------------------------------|
| 1950-51  | 1,73,723   | 43.4                   | -                             |
| 1960-61  | 2,57,125   | 49                     | 48.01                         |
| 1970-71  | 2,76,833   | 30.3                   | 7.66                          |
| 1980-81  | 4,21,895   | 28.4                   | 52.4                          |
| 1990-91  | 5,09,435   | 21.9                   | 20.75                         |
| 2000-01  | 7,36,001   | 21.8                   | 44.47                         |
| 2010-11  | 9,98,895   | 21.4                   | 35.72                         |
| 2014-15  | 11,01,178  | 20.1                   | 10.24                         |
| 2015-16  | 5,61,940   | 10                     | -48.97                        |
| 2016-17  | 5,86,181   | 9.9                    | 4.31                          |
| 2017-18  | 6,11,268   | 9.8                    | 4.28                          |

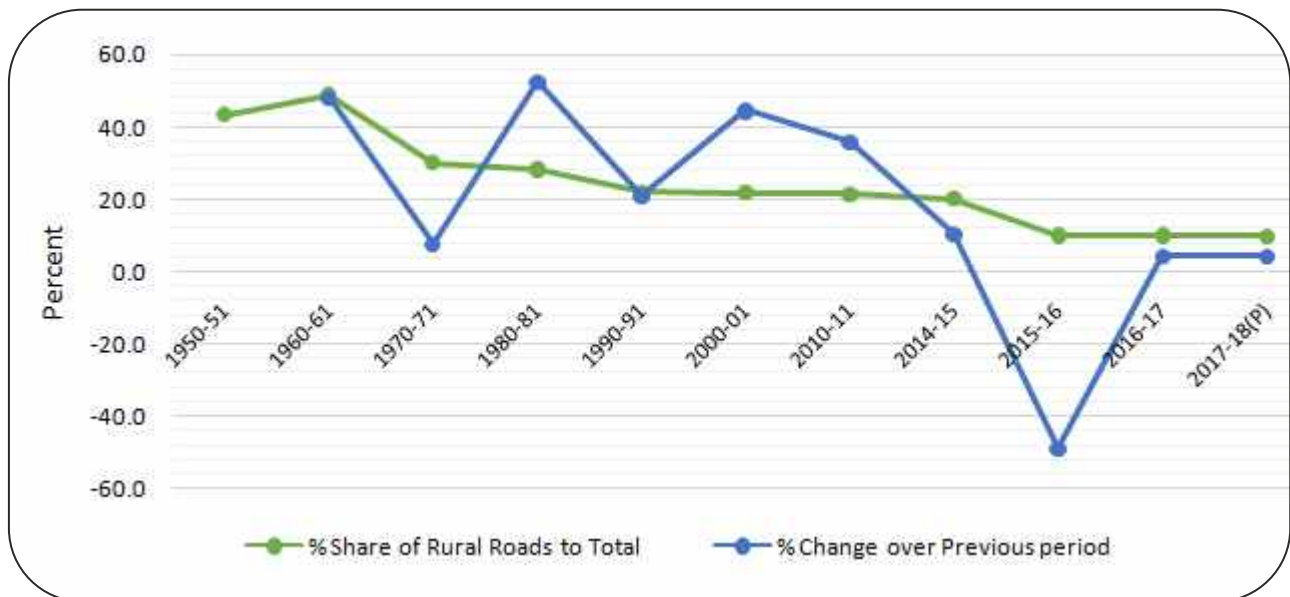
**Chart 5.1: Trend of Growth of length of Districts Roads (in Km)**



5.3 The trend of year on year growth of districts roads during the period 1960-61 to 2017-18 depicting a mixed trend is presented in the Chart 5.2. However,

percent share of districts roads to total roads has slightly been declining during the period 1950-51 to 2017-18.

**Chart 5.2: Year on Year growth and Percent share of Length of District Roads**

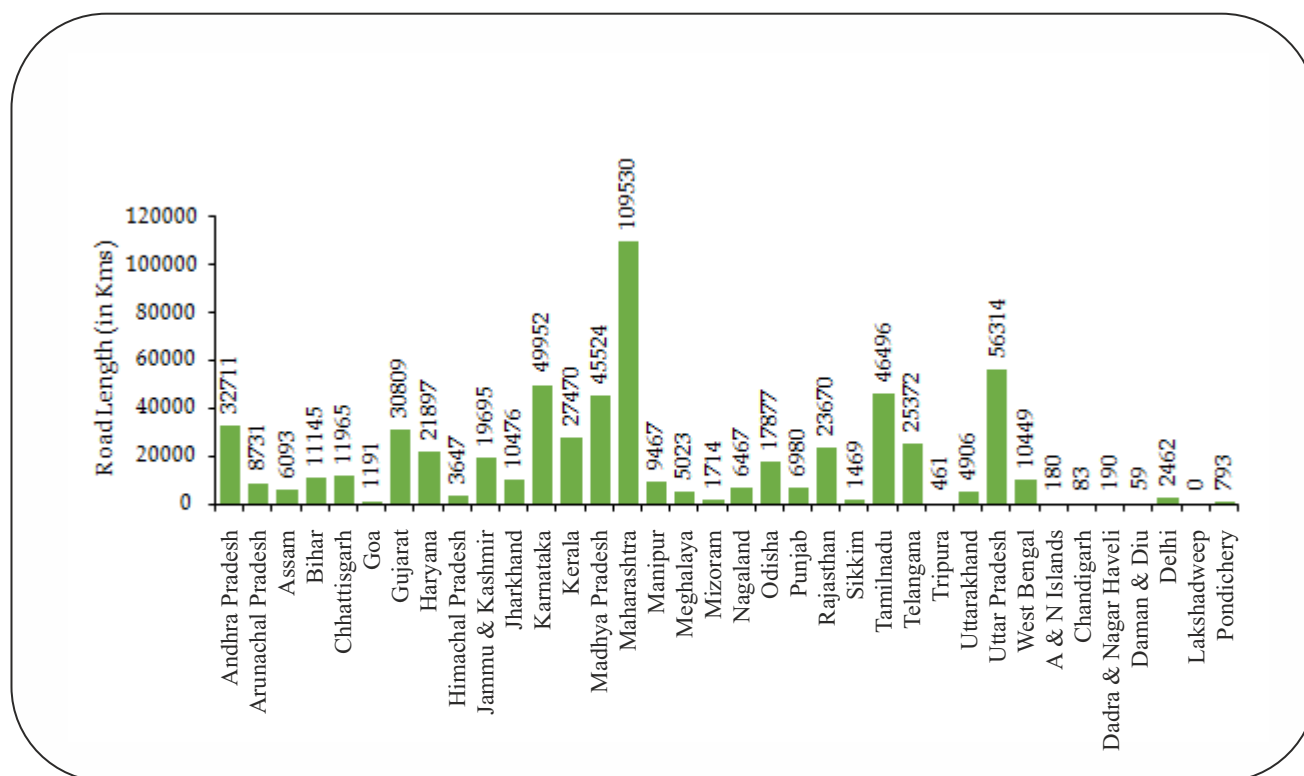


## State/UT wise details of District Roads

5.4 It may be noted that total length of District Roads as on 31<sup>st</sup> March, 2018 was 6,11,268 Kms, out of which Maharashtra accounted for the largest share in the total length of District roads (17.92%), followed by U.P (9.21%), Karnataka (8.17%), Tamil Nadu (7.61%) and

Madhya Pradesh (7.45%) (Refer Chart 5.3). These five States together account for about 50.36% of the total length of District Roads in India. The details of State/UT-wise length of District Roads as on 31.03.2018 are at **Annexure 4.1**

**Chart 5.3: State/UT-wise Length of District Roads (in Km) as on 31.03.2018**

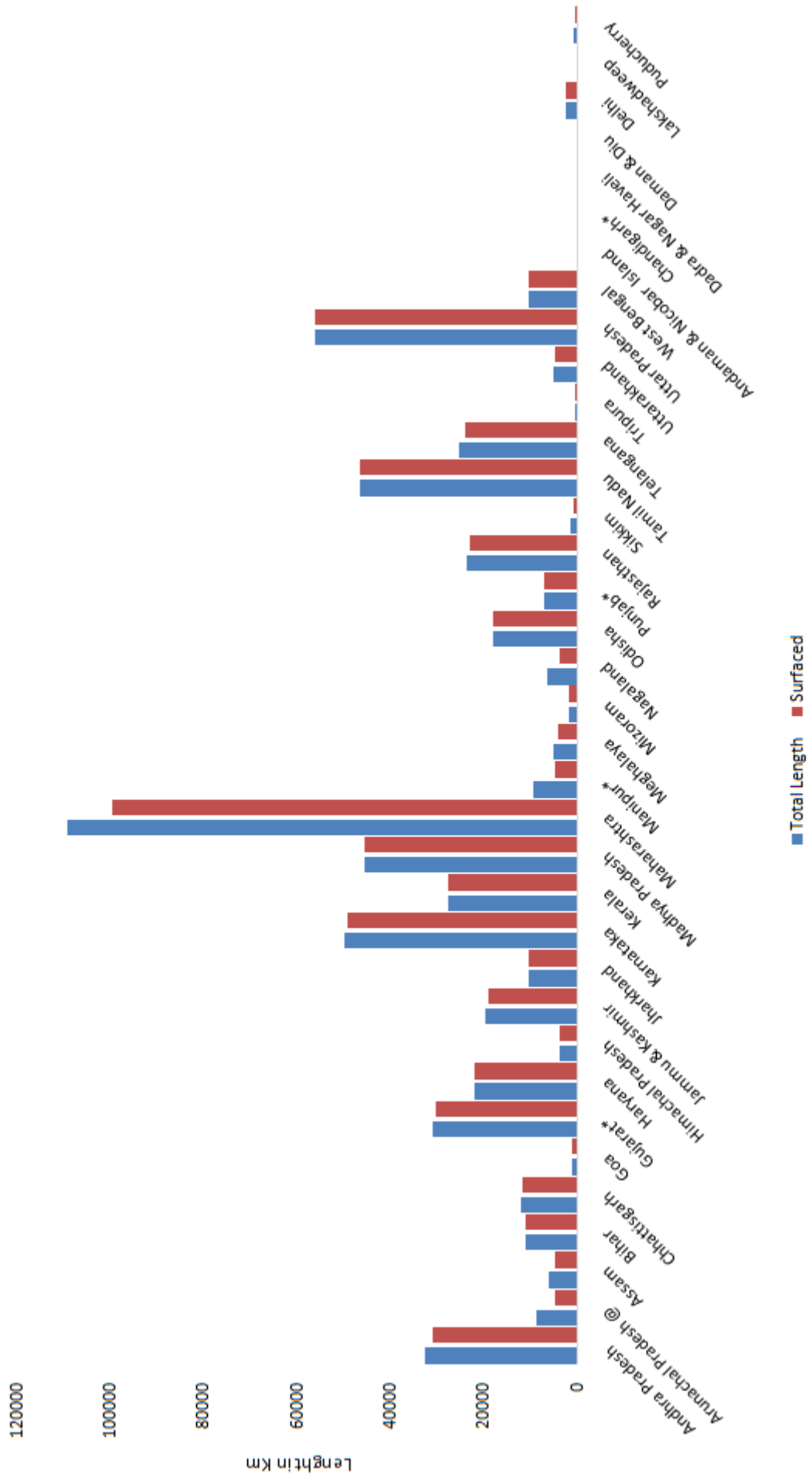


*Note: Arunachal Pradesh has not classified PWD roads into State Highways and District Roads. The length of PWD roads in the State have been reflected under State Highways.*

5.5 Details on State-wise distribution of type of surface of District Roads indicate that about 94.90 % of the total length of district roads are surfaced road as of 31<sup>st</sup> March, 2018. Out of the total surfaced District roads length of 5,80,064 Km, Bituminous Top (BT) and Cement Concrete (CC) roads together accounted for about 94.44% and the

remaining 5.56% are Water Bound Macadam (WBM) roads. Chart 5.4 depict that most of the States have surfaced district roads. The State/UT-wise break up of length of District roads by type of surface is at **Annexure 4.2.**

Chart 5.4: State/UT wise details of Total and Surfaced Length of District Roads in Km as of 31<sup>st</sup> March, 2018



# Section - 6



## Section – 6

### Rural Roads

6.1 In India, Rural roads consisted of roads built and constructed by Panchayati Raj Institutions, (Zilla Parishad, Panchayat Samiti, Gram Panchayat), Pradhan Mantri Gram Sadak Yojana (PMGSY) and State PWDs. Rural Roads though defined as low traffic volume roads are a key component of rural development, since it promotes access to economic and social services, thereby generating increased agricultural productivity, non-agriculture employment as well

as non-agricultural productivity, which in turn expands rural growth opportunities and real income through which poverty can be reduced.

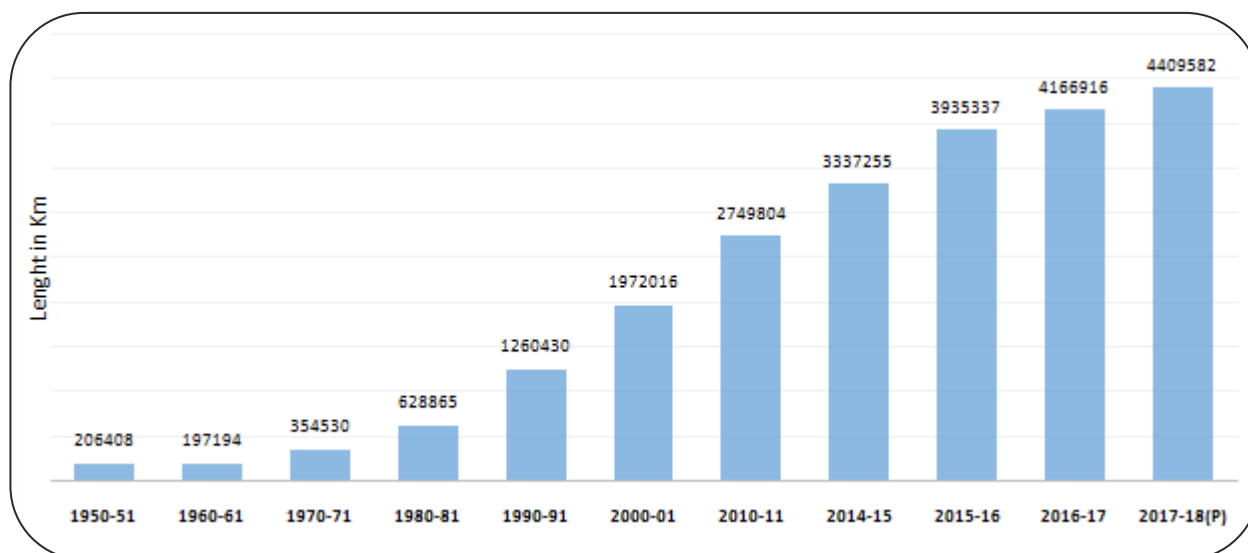
#### Overview of Rural Roads in India

6.2 There has been an increase in the rural road network in the country during the period 1950-51 to 2017-18 (Table 6.1 and Chart 6.1). Length of rural road has increased from 41,66,916 Km in 2016.-17 to 44,09,582 Km in 2017-18, with annual growth of 5.8 percent over previous period (Table 6.1).

**Table 6.1 Growth of Length of Rural Roads 1950-51 to 2017-18 (in Km).**

| Category | Length (Km) | % Share to Total Roads | % Change over Previous period |
|----------|-------------|------------------------|-------------------------------|
| 1950-51  | 2,06,408    | 51.6                   |                               |
| 1960-61  | 1,97,194    | 37.6                   | -4.5                          |
| 1970-71  | 3,54,530    | 38.7                   | 79.8                          |
| 1980-81  | 6,28,865    | 42.3                   | 77.4                          |
| 1990-91  | 12,60,430   | 54.2                   | 100.4                         |
| 2000-01  | 19,72,016   | 58.5                   | 56.5                          |
| 2010-11  | 27,49,804   | 58.8                   | 39.4                          |
| 2014-15  | 33,37,255   | 61                     | 21.4                          |
| 2015-16  | 39,35,337   | 70.2                   | 17.9                          |
| 2016-17  | 41,66,916   | 70.7                   | 5.9                           |
| 2017-18  | 44,09,582   | 70.9                   | 5.8                           |

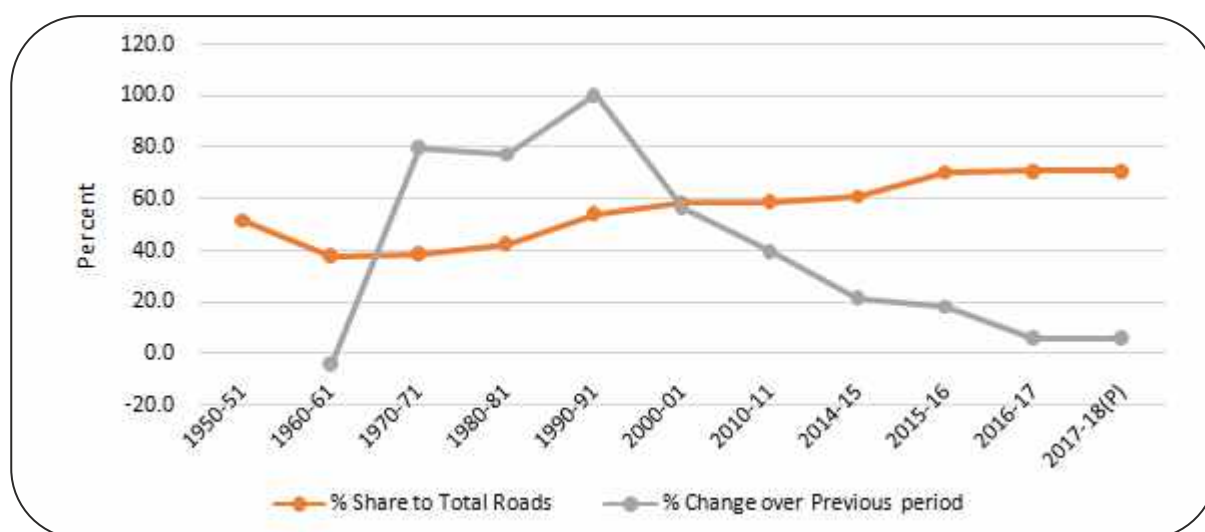
**Chart 6.1: Trend of Growth of length of Rural Roads (in Km)**



6.3 The rural roads share's about 70.9 percent of total road network in the country in 2017-18 and its percent share to total road length has also been increasing consistently since 1950-51 as depicted in

the Chart 6.2. However, year on year growth of rural roads has shown a mixed trend over the period 1950-51 to 2017-18, particularly started slightly declining since 1990-91.

**Chart 6.2: Percent change over previous period and Percent share of Length of Rural Road to Total Roads**

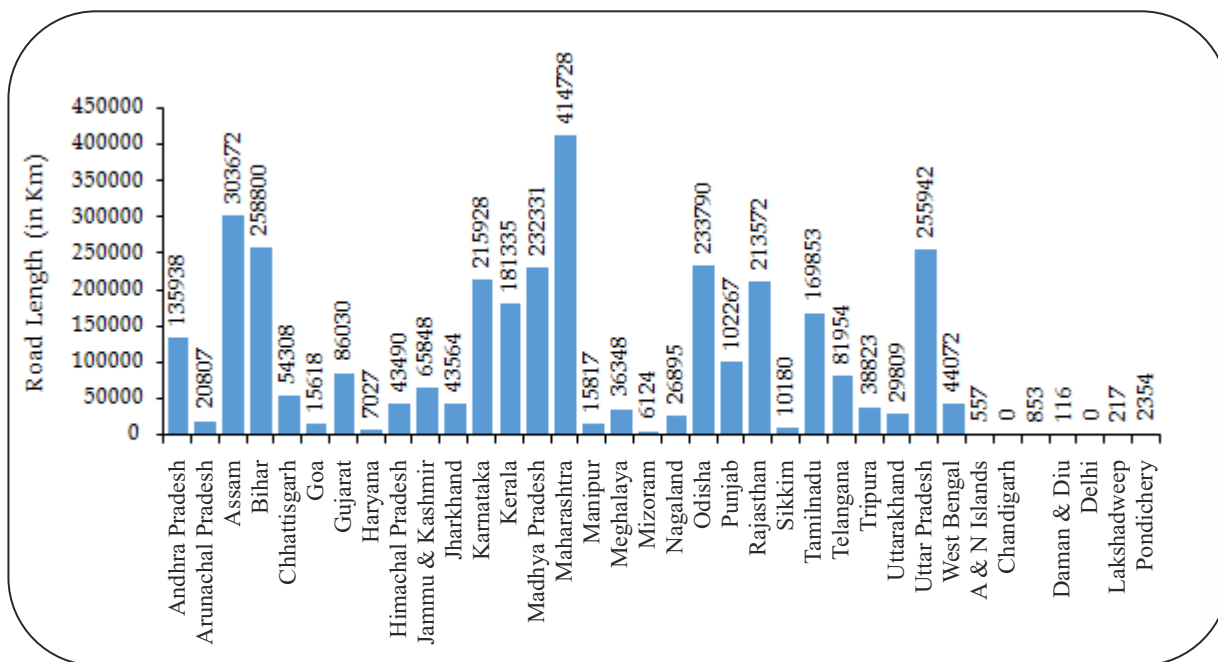


### Rural Roads - State/UT wise break up

6.4 The State/UT-wise break-up of length of Rural Roads (excluding 9 lakh kms of JRY) in Chart 6.4 shows that Maharashtra accounted for the largest share in Rural Roads (11.82%) in 2017-18 followed by

Assam (8.65%), Bihar (7.37%), Uttar Pradesh (7.29%) and Odisha (6.66%). These five States account for about 41.8% of the total length of Rural Roads in the country. The State/UT-wise break-up of Rural Road is at **Annexure 5.1**

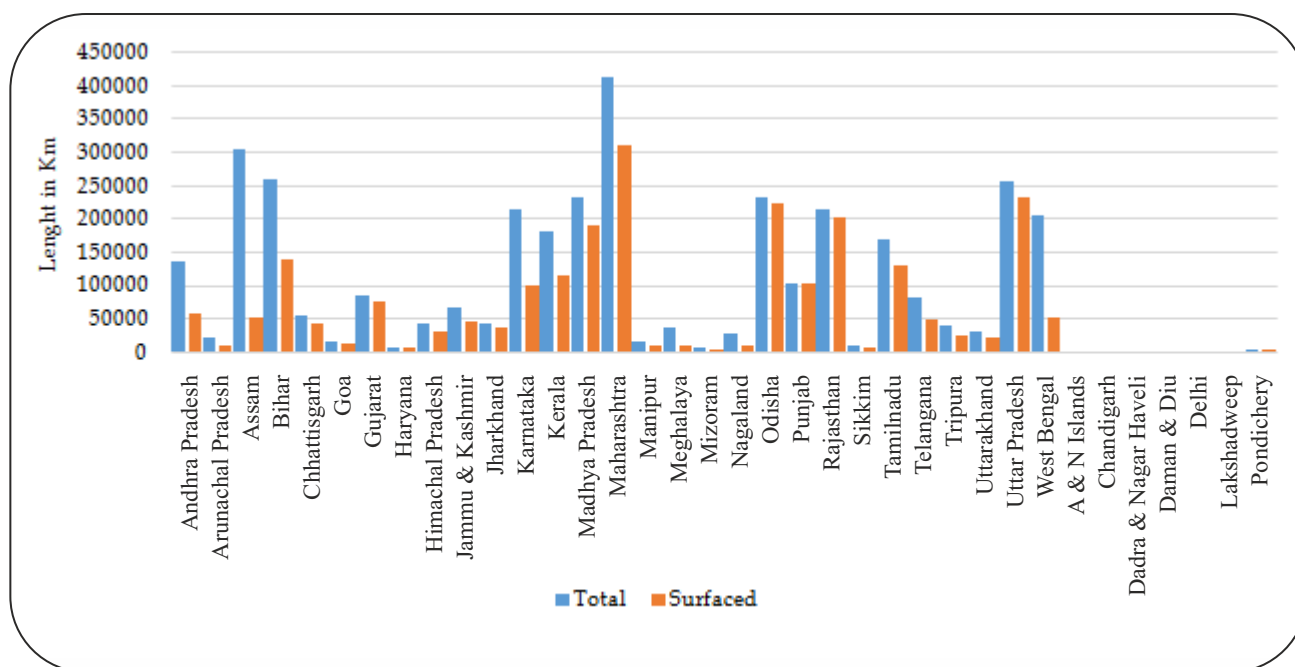
**Chart 6.3 - The State/UT-wise break-up of Length of Rural Roads as of 31st March, 2018**



6.5 The details on State-wise distribution of type of surface of rural roads indicate that about 65.4 % (2295053 Km /excluding JRY) of the total length of rural roads are surfaced as of 31<sup>st</sup> March, 2018 (see Annexure 5). It may be noted in the Chart-

6.4 that Maharashtra, West Bengal, Assam, Jharkhand, Chhattisgarh has less kilometres of surfaced road length to total length as compared to other States as of 31<sup>st</sup> March, 2018

**Chart 6.4: State/UT wise details of Total and Surfaced Rural Road's Length as of 31<sup>st</sup> March, 2018**



## Components of Rural Roads

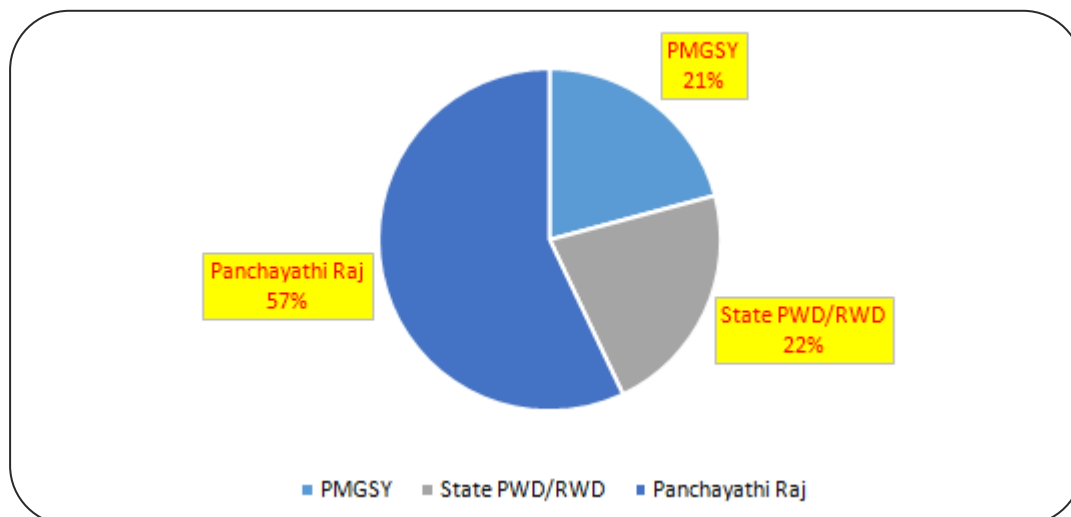
6.6 Rural roads consisted of roads built and constructed by of Panchayati Raj Institutions, (Zilla Parishad, Panchayat Samiti, Gram Panchayat), Pradhan Mantri Gram Sadak Yojana (PMGSY) and State PWDs. . It may be seen at Annexures 5.2 to 5.4 that out of a total length of 44,09,582 Km of rural roads, 7,31,234 km of PMGSY Roads have been constructed by the National Rural Road Development Agency (NRRDA) of Ministry of Rural Development (annexure 5.2 refer to),

7,75,970 Km of road built by the State PWD/RWD Departments (annexure 5.3 refer to), 20,02,379Km of Panchayati Raj Roads have been built by the States/UT Panchayati Raj Departments(Annexure 5.4 refer to) and the remaining 9 lakhs km of roads was constructed under the erstwhile Jawahar Rozgar Yojana (JRY) Scheme as of 31<sup>st</sup> March,2018. It may be seen in the Chart 6.5 that about 57 percent of rural roads are constructed by Panchayati Raj Institutions (PRI).

**Table 6.2: Rural Road constructed by various Institutions as of 31<sup>st</sup> March, 2018**

| Category        | Length in Km     | Surfaced         | Surfaced roads as % to Total Roads |
|-----------------|------------------|------------------|------------------------------------|
| PMGSY           | 7,31,234         | 5,85,284         | 80.04                              |
| State PWD/RWD   | 7,75,970         | 6,33,340         | 81.62                              |
| Panchayathi Raj | 20,02,379        | 10,76,429        | 53.76                              |
| <b>Total*</b>   | <b>35,09,582</b> | <b>22,95,053</b> | <b>65.39</b>                       |

**Chart 6.5: Percent share of various Institutions to total construction of Rural Roads as of 31<sup>st</sup> March, 2018**



6.7 In the Chart 6.5, it may be noted that though PRI shares major chunk of rural road network, it has less kilometres of Surfaced Road ( only 54 %) when compare with other

two categories. With respect to road constructed by PMGSY and State PWD/RWD, about 80 percent and 82 percent of roads respectively are surfaced.

# Section - 7

## Section – 7

### Urban Roads

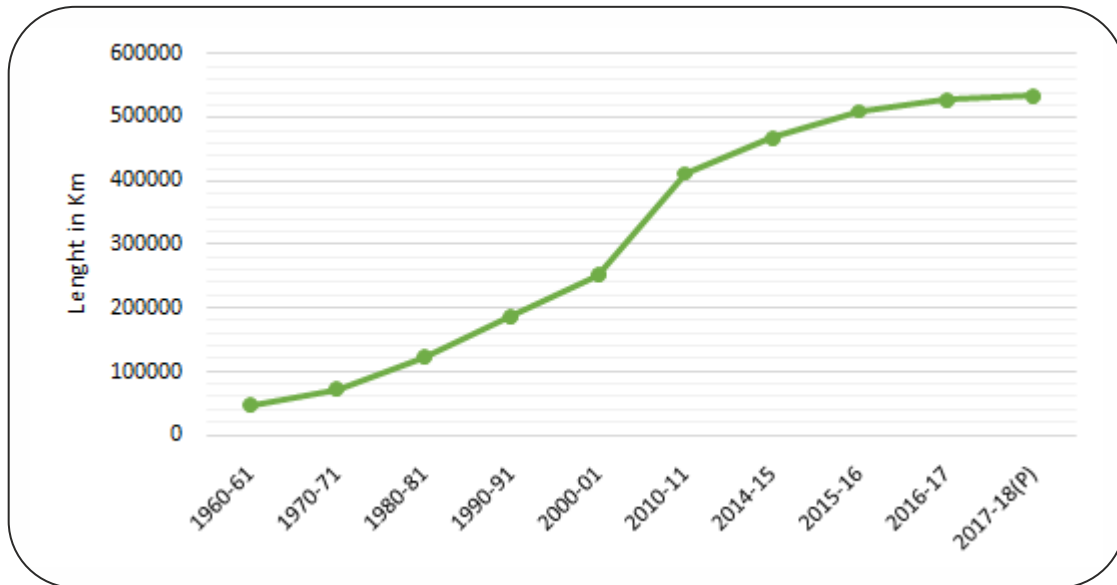
7.1 Urban Roads consist of Municipal Roads under Urban Development Departments of States and UTs, roads in Railway Zones, MES roads constructed by Military Engineering Services (MES) and Major and Minor Port Roads. Municipal roads shares about 94 percent of total urban roads in the country. Total length of urban roads has

been depicting an increasing trend during the period 1960-61 to 2017-18 (Table 7.1 and Chart 7.1). Length of urban road has increased from 5, 26,483 Km in 2016.-17 to 5, 34,142 Km in 2017-18, with annual growth of 1.5 percent over previous period (Table 7.1).

**Table 7.1 Growth of Length of Urban Roads 1950-51 to 2017-18 (in Km)**

| Category       | Urban Roads (Km) | % Share to Total Roads | % Change over Previous period |
|----------------|------------------|------------------------|-------------------------------|
| <b>1960-61</b> | 46,361           | 8.8                    | -                             |
| <b>1970-71</b> | 72,120           | 7.9                    | 55.6                          |
| <b>1980-81</b> | 1,23,120         | 8.3                    | 70.7                          |
| <b>1990-91</b> | 1,86,799         | 8                      | 51.7                          |
| <b>2000-01</b> | 2,52,001         | 7.5                    | 34.9                          |
| <b>2010-11</b> | 4,11,679         | 8.8                    | 63.4                          |
| <b>2014-15</b> | 4,67,106         | 8.5                    | 13.5                          |
| <b>2015-16</b> | 5,09,730         | 9.1                    | 9.1                           |
| <b>2016-17</b> | 5,26,483         | 8.9                    | 3.3                           |
| <b>2017-18</b> | 5,34,142         | 8.6                    | 1.5                           |

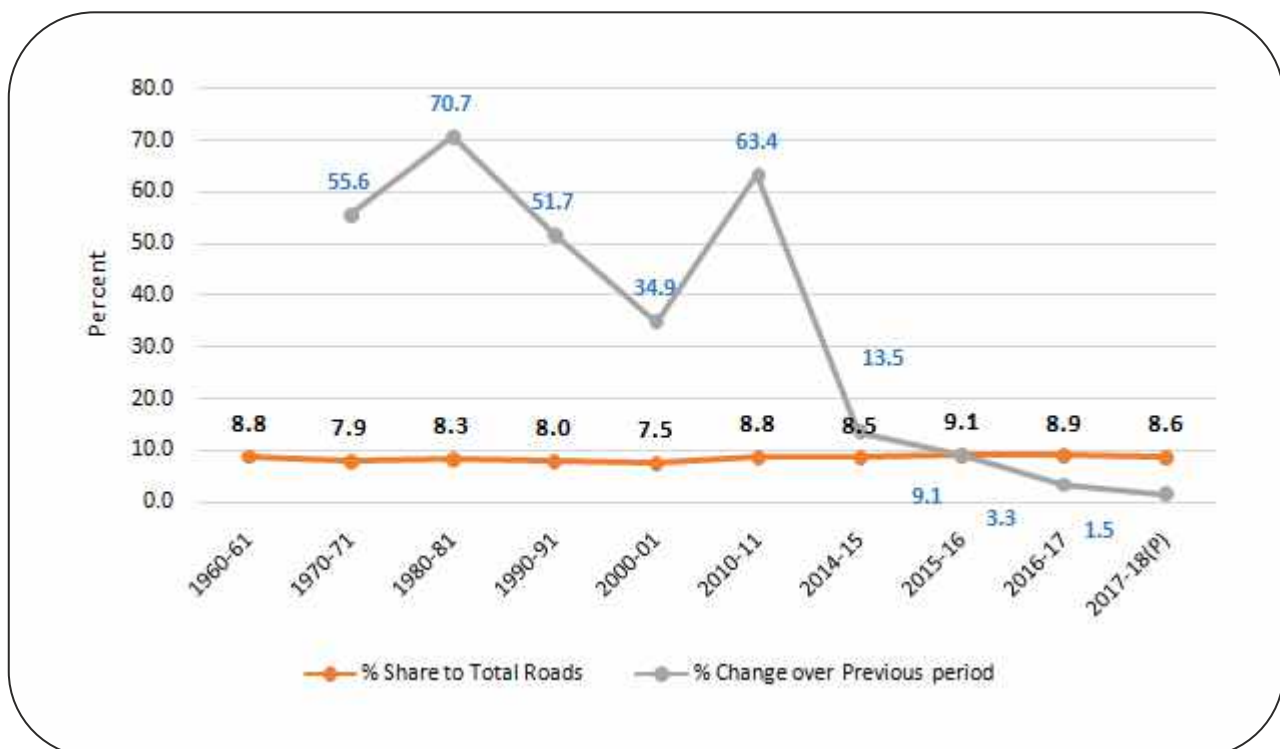
**Chart 7.1: Trend of growth of Length of Urban Roads 1950-1 to 2017-18 (in Km)**



7.2 The urban roads share's about 8.6 percent of total road network in the country in 2017-18 and its percent share to total road length has also been depicting a constant trend in the Chart 7.2. However, year on

year growth of urban roads has shown a mixed trend over the period 1970-71 to 2017-18, particularly started declining since 2010-11.

**Chart 7.2: Percent change over previous period and Percent share of Length of Rural Road to Total Roads (in Km)**



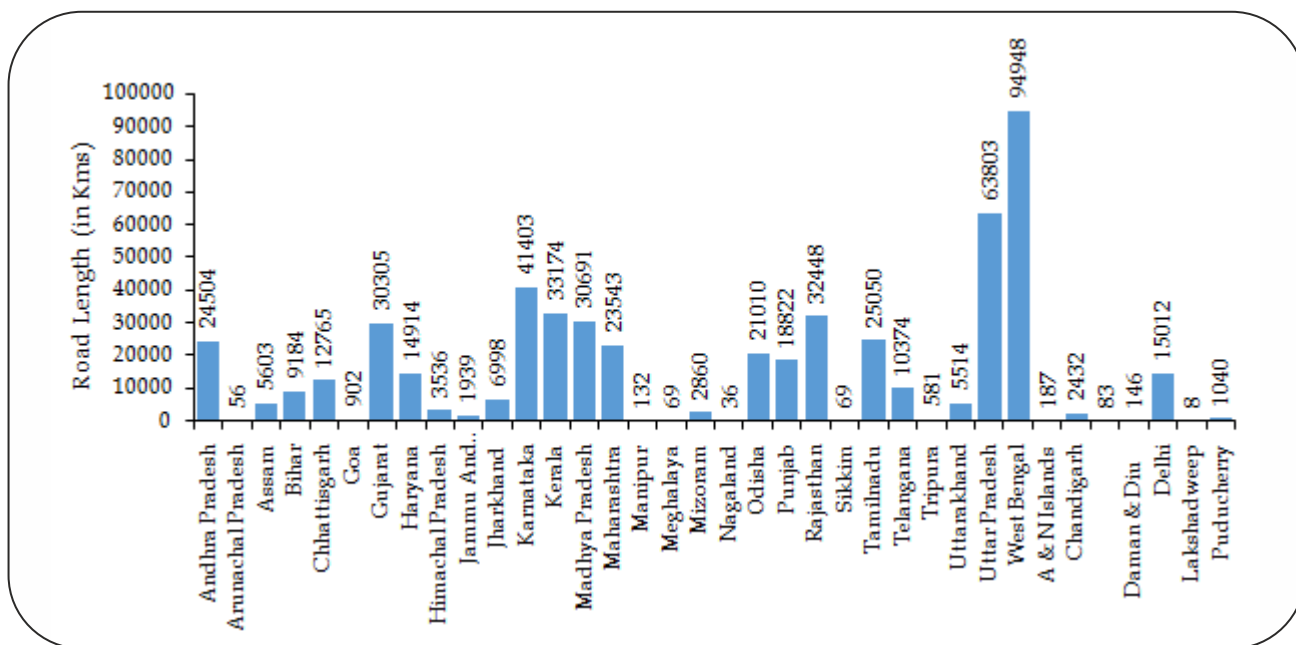


## State/UT-wise Details of Urban Roads

7.3 The State/UT-wise break-up of Urban Roads ( at Annexure 6.1 )shows that West Bengal accounted for the largest share (17.78%) in total length of Urban Roads as on 31<sup>st</sup> March 2018, followed by U.P.

(11.94%), Karnataka (7.75%), Kerala (6.21%) and Rajasthan (6.07%) . These five States accounted for about 49.76% of the total length of Urban Roads in the country. About 78 percent of urban roads are surfaced as on 31<sup>st</sup> March, 2018.

**Chart 7.3 State/UT wise break-up of Length of Urban Roads as on March 31<sup>st</sup>, 2018.**



7.4 The details on different categories of roads considered under Urban Road is given at **Annexure 6.2** to **Annexure 6.6**. Out of total Urban Roads as on 31.03.2018, municipal roads constitute the highest share of

94.10%, followed by MES roads (3.03%), Railway roads (2.66%). The Major and Minor Port roads taken together constitute only 0.21 per cent of the total urban roads.

# Section - 8

## Section – 8

### Project Roads

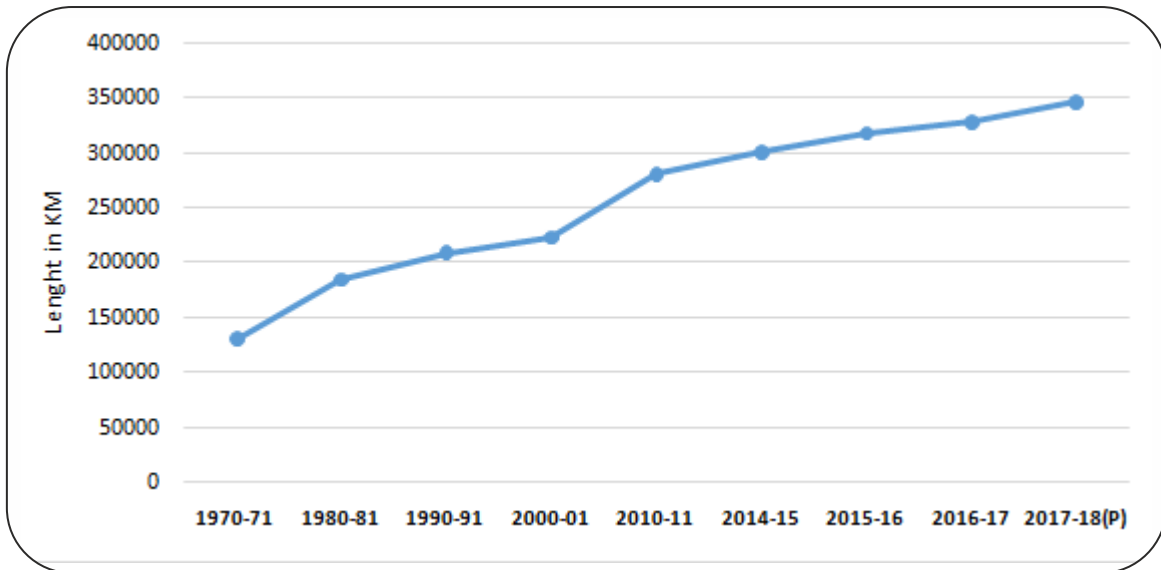
8.1 Project Roads largely include roads built/coming under the purview of Central and State Government agencies and departments. Roads under this category include roads of Forest Departments, Irrigation Departments, Electricity Departments, roads in coal fields and coal mines of Coal India Ltd., roads under the plant areas of Steel Authority of India Limited (SAIL), National Mineral Development Corporation (NMDC), Sugarcane Departments of States/UT and Border Roads Organisation (BRO).

8.2 Total length of Project roads has been depicting an increasing trend during the period 1970-71 to 2017-18 (Table 8.1 and Chart 8.1). Project roads shares about 5.6 percent of total roads in the country in 2017-18. The total length of Project Roads has increased from 3,28,897Km as on 31.3.2017 to 3,47,547 km as on 31.3.2018, which has an increase of about 5.7 % over 2017 (Table 8.1). The trend of growth of Project roads also depicting an increasing trend in Chart 8.2 for the period 1970-71 to 2017-18.

**Table 8.1: The growth in the length of Project Roads since 1971**

| Category       | Projects Roads | % Share to Total Roads | % Change over Previous period |
|----------------|----------------|------------------------|-------------------------------|
| <b>1970-71</b> | 1,30,893       | 14.3                   |                               |
| <b>1980-81</b> | 1,85,511       | 12.5                   | 41.7                          |
| <b>1990-91</b> | 2,09,737       | 9.0                    | 13.1                          |
| <b>2000-01</b> | 2,23,665       | 6.6                    | 6.6                           |
| <b>2010-11</b> | 2,81,628       | 6.0                    | 25.9                          |
| <b>2014-15</b> | 3,01,505       | 5.5                    | 7.1                           |
| <b>2015-16</b> | 3,19,109       | 5.7                    | 5.8                           |
| <b>2016-17</b> | 3,28,897       | 5.6                    | 3.1                           |
| <b>2017-18</b> | 3,47,547       | 5.6                    | 5.7                           |

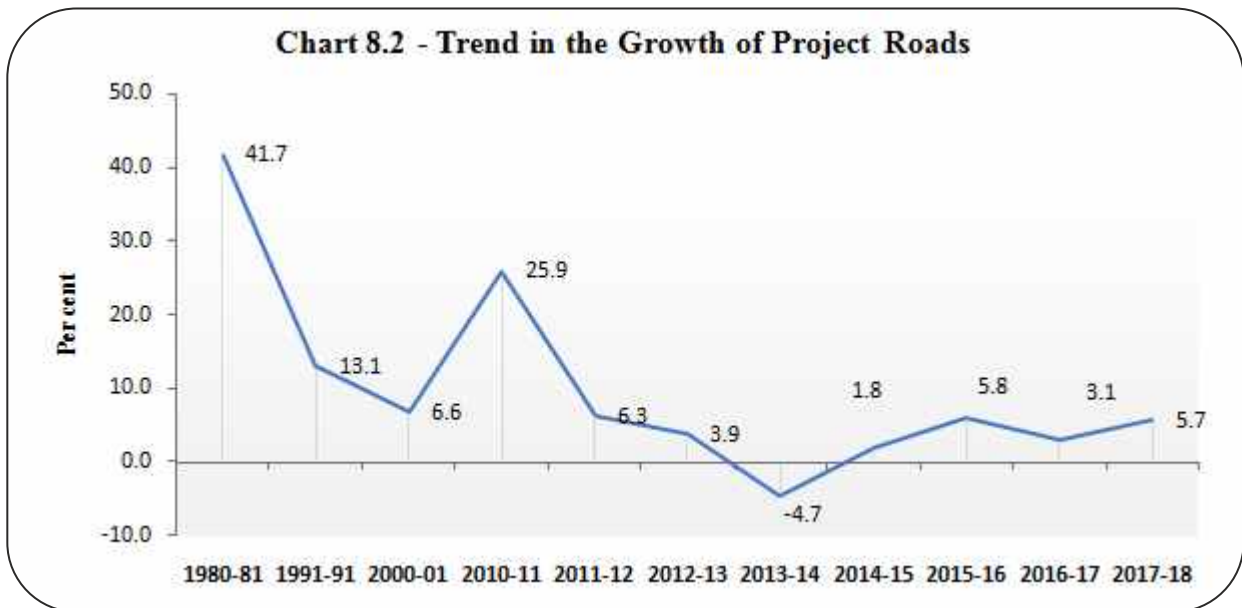
**Chart 8.1: The trend of growth of Project roads 1970-71 to 2017-18**



8.3 The year on year growth of urban roads has shown a mixed trend over the period

1980-81 to 2017-18, particularly started increasing slightly since 2013-14.

**Chart 8.2: Trend in Year on Year growth of Length of Projects Road to Total Roads**

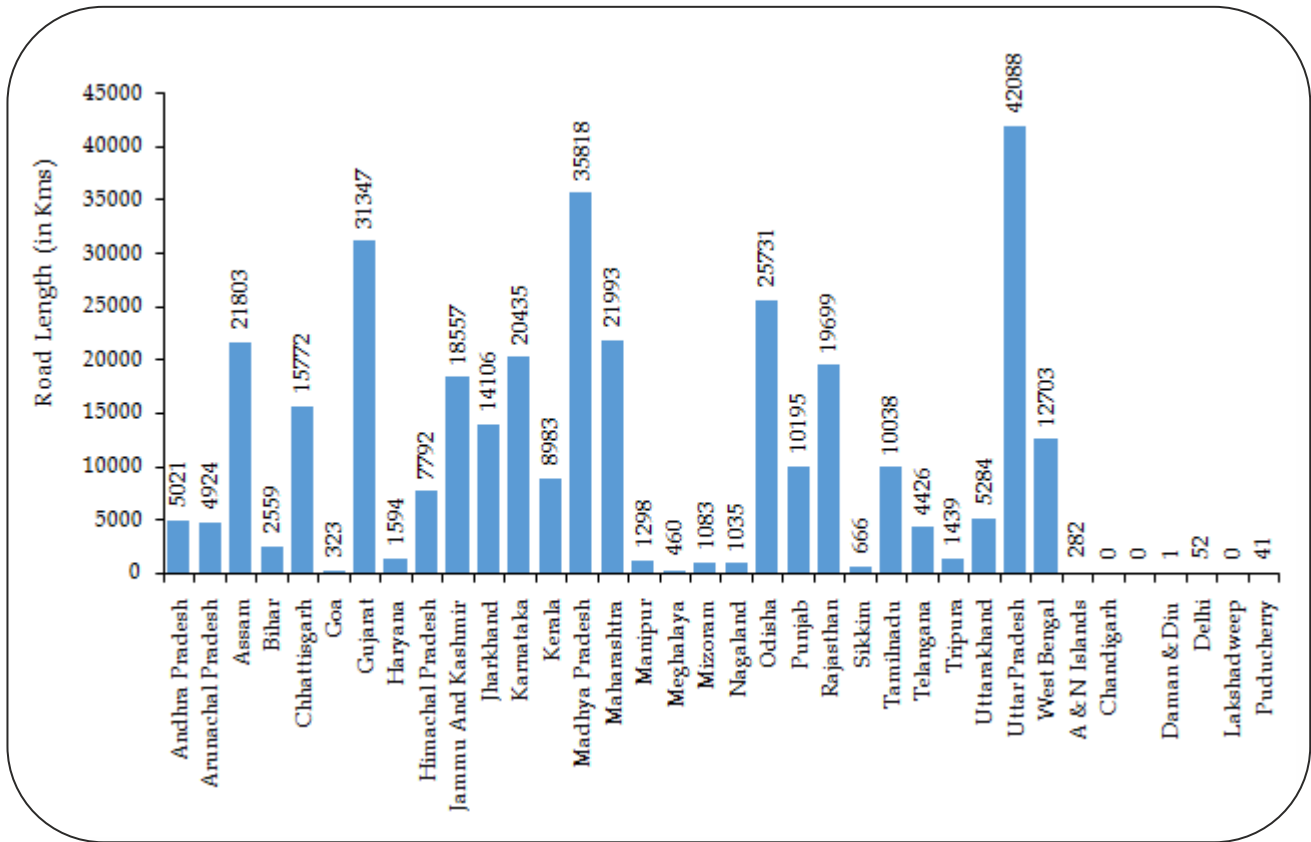


**The State/UT-wise break-up of Project Roads**

8.4 It may be seen from the Chart8.3 that Uttar Pradesh accounted for the largest share (12.11%) in total length of Project Roads as on 31st March 2018, followed by Madhya Pradesh (10.31%), Gujarat

(9.02%), Odisha (7.40%) and Maharashtra (6.33%). These five States together account for about 45.17% of the total length of Project Roads as on 31.03.2018. The State/UT-wise break-up of Project Roads is given in the **Annexure 7.1**.

**Chart 8.3: State/UT-wise Length of Project Roads (in Km) as on 31st March, 2018**



8.5 The details at **Annexure 7.2 to 7.8** and the summary in **Annexure 7.1** reveals that out of the total length of 34,7547Kms of Project Roads, as on 31st March, 2018, Forest Roads (1,79,160 Kms) approximately account for about 51.55% followed by Irrigation Department Roads with a share of about 31.10% and BRO Roads having a share of about 8.77%. The remaining 8.58% of project roads come under the purview of coal fields and mines of Coal India Ltd.;

SAIL and NMDC; Sugarcane and Electricity Departments of States and UTs.

8.6 Since forest roads run through reserved forest areas and wild life sanctuaries, only a small share (34.07%) are surfaced. Out of total surfaced forest roads of length 61,037 Kms, B.T. / C.C. roads constitute about 61.09 per cent and the remaining 38.91 per cent is constituted by the Water Bound Macadam roads.

# Section - 9

### International Comparison of Road Network

9.1 The chapter on International comparison of Road network is based on data published in respect of 196 countries in the International Road Federation (IRF) Geneva publication titled, World Road Statistics for 2018. The data published in this document pertains to the year 2016 with small variations and positions India globally viz-a -viz other countries in respect of parameters such as

total road length, road length per 1000 people, length and share of National Highways, share of paved roads, motorways, road density etc.

9.2 The major road related indicators, arranged in descending order of total road length across 15 top countries is given in Table 9.1 below:

**Table 9.1: Major Road Indicators across Select Countries**

| Name of the Country  | Total Road length |               | Population 2016                   | Roads (in KM) per '000 people | National Highways |                              |                         | Motorways[1]      |                              | Road Density |
|----------------------|-------------------|---------------|-----------------------------------|-------------------------------|-------------------|------------------------------|-------------------------|-------------------|------------------------------|--------------|
|                      | Road length in KM | World Ranking |                                   |                               | Road length in KM | % share in total road length | Share of Paved road (%) | Road length in KM | % share in total road length |              |
| 1                    | 2                 | 3             | 4                                 | 5                             | 6                 | 7                            | 8                       | 9                 | 10                           | 11           |
| <b>United States</b> | 66,45,709         | 1             | 32,34,05,935                      | 20.55                         | 29,599            | 0.45                         | 66.02                   | 77,002.00         | 1.16                         | 0.68         |
| <b>India **</b>      | <b>62,15,797</b>  | <b>2</b>      | <b>1,21,01,93,422<sup>s</sup></b> | <b>5.13</b>                   | <b>1,26,350</b>   | <b>2.03</b>                  | <b>63.25</b>            | <b>NA(*)</b>      | <b>NA(*)</b>                 | <b>1.62</b>  |
| <b>China</b>         | 46,96,263         | 3             | 1,37,86,55,000                    | 3.41                          | 99,152            | 2.11                         | 75.90                   | 1,30,973.00       | 2.79                         | 0.49         |
| <b>Brazil</b>        | 15,12,371         | 4             | 20,76,52,865                      | 7.28                          | 76,515            | 5.06                         | 17.30                   | NA                | NA                           | 0.18         |
| <b>Russia</b>        | 1,498,727         | 5             | 14,43,42,396                      | 10.38                         | 51,959            | 3.47                         | 70.30                   | 1,105.00          | 0.07                         | 0.09         |

<sup>1</sup> In the backdrop of the pandemic, the “world Road Safety Statistics-2019” brought out by International Road Federation, Geneva has not yet been published, hence we are constrained to confine ourselves to the results provided in road Statistics, 2018 in this section.

<sup>2</sup> Motorway is a road specially designed and built for motor traffic, is specially sign-posted as a motorway, is reserved for specific categories of road motor vehicles and has no crossing at the same level with any road, railway or tramway track, or footpath.

Contd... Table 9.1: Major Road Indicators across Select Countries

| Name of the Country | Total Road length |               | Population 2016 | Roads (in KM) per '000 people | National Highways |                              |                         | Motorways[1]      |                              | Road Density |
|---------------------|-------------------|---------------|-----------------|-------------------------------|-------------------|------------------------------|-------------------------|-------------------|------------------------------|--------------|
|                     | Road length in KM | World Ranking |                 |                               | Road length in KM | % share in total road length | Share of Paved road (%) | Road length in KM | % share in total road length |              |
| 1                   | 2                 | 3             | 4               | 5                             | 6                 | 7                            | 8                       | 9                 | 10                           | 11           |
| Canada              | 11,26,000         | 6             | 3,62,64,604     | 31.05                         | 38,049            | 3.38                         | 39.90                   | NA                | NA                           | 0.11         |
| France              | 10,88,089         | 7             | 6,68,59,768     | 16.27                         | 8,219             | 0.76                         | 100.00                  | 12,356.00         | 1.14                         | 1.98         |
| Australia           | 8,73,561          | 8             | 2,42,10,809     | 36.08                         | 1,81,688          | 20.80                        | NA                      | 51,540.00         | 5.90                         | 0.11         |
| Spain               | 6,66,536          | 9             | 4,64,84,062     | 14.34                         | 23,856            | 3.58                         | NA                      | 3,039.00          | 0.46                         | 1.32         |
| Germany             | 6,42,970          | 10            | 8,23,48,669     | 7.81                          | 38,068            | 5.92                         | NA                      | 12,996.00         | 2.02                         | 1.80         |
| Indonesia           | 5,37,838          | 11            | 26,11,15,456    | 2.06                          | 47,017            | 8.74                         | 60.70                   | NA                | NA                           | 0.28         |
| Thailand            | 5,06,538          | 12            | 6,88,63,514     | 7.36                          | 70,077            | 13.83                        | NA                      | 208.00            | 0.04                         | 0.99         |
| United Kingdom      | 4,22,097          | 13            | 6,55,95,565     | 6.43                          | 48,902            | 11.59                        | 100.00                  | 3,764.00          | 0.89                         | 1.73         |
| Poland              | 4,20,236          | 14            | 3,79,70,087     | 11.07                         | 17,751            | 4.22                         | 70.00                   | 1,637.00          | 0.39                         | 1.34         |
| Mexico              | 3,93,451          | 15            | 12,75,40,423    | 3.08                          | 40,681            | 10.34                        | 41.80                   | 9,796.00          | 2.49                         | 0.20         |

Source: IRF, World Road Statistics, published by International Road Federation Geneva

(\*): In India, as per information available in MORTH, 236.12 kms of Expressways have already been completed, another 73.33 Kms of expressways are at different stages of completion and another 3264.34 kms are at different stages of planning.

(\*\*): Figures for India updated to 31.3.2018 as against 31.3.2016 given in WRS 2018.

§: pertains to the year 2011.

9.3 India with a total road length of 62.15 lakh Km ranks second out of 196 countries reported in the World Road Statistics, after USA.

9.4 In terms of road length per thousand persons, India is placed at 96th in the

world, with a road density per thousand persons at 5.13 as against Australia which leads at 36.08 km per thousand people, followed by Canada at 31.05 km per thousand people and United States at 20.55 km per thousand people.



- 9.5 In terms of length of National Highways, India with a length of 1,26,350 km and with a share of 2.03% in total road length ranks 2<sup>nd</sup> after Australia which has a length of 1,81,688 km and share of 20.8% in total road length.
- 9.6 The paved/surfaced road length in India was 63.25 per cent of the total road length which is much lower when compared with advanced countries like that of France (100%), United Kingdom (100%), China (75.9%) etc.
- 9.7 India's road density at 1.62 km/km<sup>2</sup> is higher than China (0.49 km/km<sup>2</sup>), USA (0.68 km/km<sup>2</sup>) but is lesser than France (1.98 km/km<sup>2</sup>) which is geographically much smaller.

# Section - 10

## Major Schemes/Initiatives of Ministry of Road Transport and Highways

10.1 The Ministry of Road Transport and Highways has been making constant efforts to expand and upgrade National Highways (NHs) Network in the country into a road network of international standards for uninterrupted flow of traffic with enhanced safety features. The Ministry implements several Central Sector Schemes such as the Special Accelerated Development Programme in the North East (SARDP-NE) including Arunachal Package, Development of the Left Wing Extremism, the Vijayawada Ranchi corridor, Bharatmala Pariyojna etc for enhancing connectivity for remote far flung and isolated areas, including North-East Region (NER), Left Wing Extremism (LWE) affected areas including Tribal areas. Details schemes for Highway Development is in Chapter 2.

### **Major Schemes of the Ministry other than NHDP**

10.2 **Special Accelerated Road Development Programme for North-Eastern region (SARDP-NE)**- This programme envisages providing road connectivity to all the district headquarters in the north eastern region by minimum 2 lane highway standards apart from providing road connectivity to backward and remote areas, areas of strategic importance and neighbouring countries. Programme planned in two phases (A & B) including Arunachal

Package. Phase 'A' of SARDP-NE envisages improvement of about 4,099 km length of roads (3,014 km of NH and 1,085 km of State roads) and Phase 'B' covers 3,723 km (2,210 km NHs and 1,513 km of State roads) of road. An amount of Rs. 33,714 crore has been spent in SARDP-NE including Arunachal Pradesh Package of roads. The SARDPNE Phase 'A' is expected to be completed by March, 2023-24.

10.3 **The Arunachal Pradesh Package** for Road & Highways involve development of about 2,319 km length of road (2,205 km of NHs & 114 km of State / General Staff / Strategic Roads). Total length of about 1934 km have been awarded out of which 949 km has been completed. The entire Arunachal Pradesh package is targeted for completion by March, 2023-24.

10.4 **Left Wing Extremism affected Areas** – This scheme envisaged for development of about 1,177 km of NHs and 4,276 km of State Roads in Left Wing Extremism (LWE) affected areas as a Special Project with an estimated cost of about Rs. 7,300 Crore. Under the programme about 5,419 km length of road has been awarded. MoRTH has entrusted with the responsibility of developing roads in 34 LWE affected districts areas in the States of Andhra Pradesh, Bihar, Chhattisgarh,

Jharkhand, Madhya Pradesh, Maharashtra, Odisha and Uttar Pradesh for all inclusive growth of these areas.

- 10.5 **Development of Vijayawada Ranchi route-** Under the project, development of 600 km (net length 592 km) of State Roads in Odisha (549 km Newly declared NH and 43 km SH), not covered in any Central or State Scheme has been approved by the Government at a cost of Rs 1,200 crore on 4th November, 2010. So far, the detailed estimates for all the 9 packages in an aggregate length of 592 km have been sanctioned at an estimated cost of Rs. 1,347 crore and works were awarded. The development on 577 km has been completed at a cumulative expenditure of Rs. 1,089 crore.

### **Major Schemes for development of Non-NHDP National Highways**

#### **10.6 Externally Aided Projects**

1. **National Highway Interconnectivity Improvement Programme (NHIIP) by World Bank Loan Assistance-** About 1,120 km approved length (aggregate length- 1,087 km at an revised cost of Rs. 6,461 km) of NHs are to be improved to 2-lane NH standards following corridor development approach under the World Bank Loan Assistance in Phase-I. Loan Agreement for Phase-I (1,120 km under first tranches of Loan Assistance of US\$ 500 Million) was signed with World Bank on 1 July, 2014. Till December, 2019, 881 km of length has been completed with total expenditure of Rs. 4,440 crore.

#### **2. Japan International Cooperation**

**Agency (JICA) Loan Assistance** - About 7 projects having NH length of about 738 km are to be improved under the Loan Assistance from JICA at the cost of about Rs. 18,172 crore. For the proposed execution of projects the cost of LA and utility shifting are to be borne by the Government of India. Out of these 7 projects, 5 projects are to be executed by NHIDCL, 1 project each is being executed by the Ministry through State PWD (BSRDCL) and by NHAI. The Ministry has awarded 92.935 km, Gaya- Rajgir - Nalanda – Bihar Sharif section of NH 82 in the State of Bihar at cost of Rs. 925.87 crore. About 47 km of length has already been completed of this stretch. The Project is likely to be completed by 2020-21. NHAI awarded 127 km, Patna – Gaya - Dhobi section of NH 22 in the State of Bihar at cost of Rs. 1,231.98 crore.

- 10.7 **Char Dham Pariyojana** - The program envisages improvement /development of 889 km length of NHs at total estimated cost of about Rs. 11,700 crore. The projects include provisions like widening of existing narrow & geometrically deficient NHs to 2-Lane NH standards with paved shoulders, protection of landslide prone zones, construction of bypasses, long bridges, tunnels, bus /truck lay bye /rest area and elevated corridors. Out of total 53 civil works covering the entire length under Chardham project, 40 civil works of total project cost amounting to Rs. 9,474 crore (including cost of pre-

construction works amounting to Rs. 491 cr.) in a length of 673 km have been sanctioned. 38 works in a length of 647 km amounting to Rs. 8,379 cr. have been awarded out of which 36 works amounting to Rs. 8,238 cr. in length of 646 km are ongoing and 2 works amounting to Rs. 141 cr. in a length of 1.1 km have completed. Balance 2 nos. works amounting to Rs. 604 cr. in a length of 25 km are in tender stage.

**10.8 Green National Highways Corridor Project (GNHCP) with the Loan Assistance of World Bank** - The project aims at upgradation and rehabilitation to 2-lane/2-lane with paved shoulders/4-lane configuration, and strengthening of stretches of various National Highways covering a total length of 781.38 km in the

States of Himachal Pradesh, Rajasthan, Uttar Pradesh and Andhra Pradesh, with loan assistance of the World Bank with a total loan amount of US \$ 500 Million and total project cost of Rs.7,662.47 Crore. For the proposed execution of projects, the cost of LA and utility shifting are to be borne by the Government of India as per policy of the World Bank. The loan agreement for the project is yet to be signed.

**10.9** The balance length of Highways are covered under National Highways (Original) [NH(O)] as per availability of fund, inter-se priority, traffic density, committed spill over liabilities of previous years' sanctions and available allocation for the year.

**Table 10.1: Balance length of NHs to be covered under NH (O)**

| S. No.        | Scheme   | Length in km    |
|---------------|--|-----------------|
| <b>1</b>      | <b>Total length of NH Network</b>  | <b>1,32,500</b> |
| <b>(i)</b>    | Length of NH under various phases of NHDP  | 48,899          |
| <b>(ii)</b>   | Additional length of NHs covered under Bharatmala Phase-I  | 9,496           |
| <b>(iii)</b>  | Length of NH under Special Accelerated Road Development Programme for North-East Region (SARDP-NE) including Arunachal Pradesh Package | 7,429           |
| <b>(iv)</b>   | Development of road (NH) in Left Wing Extremism (LWE) affected areas   | 1,177           |
| <b>(v)</b>    | Vijayawada Ranchi Corridor (VRC)   | 592             |
| <b>(vi)</b>   | Externally Aided Projects (World Bank, JICA, ADB)  | 1,893           |
| <b>(vii)</b>  | VGF / EPC Scheme under NH(O)   | 1,680           |
|               | <b>Sub Total [from Sr. (i) to Sr. (vii)]</b>   | <b>71,236</b>   |
| <b>(viii)</b> | <b>Balance length of NHs covered under NH(O) (completion in last 5 years and current year)</b>   | <b>61,334</b>   |

## Major Policy Initiatives

10.10 **Process Streamlining** - The Ministry is now empowered to decide on mode of delivery of projects - whether PPP/EPC. It is also authorized to appraise and approve projects up to Rs. 1,000 crores – both for PPP and EPC mode in place of earlier Rs. 500 crores. Under Bharat Mala Pariyojna, further appraisal and approval limits have been defined. All PPP projects (BOT) projects are to be appraised and approved by NHA Board and all BOT (Annuity) / Ham projects with project cost up to 2000 crore are to be appraised by an SFC headed by Secretary and approved by Minister, MORTH. Other BOT Annuity projects would be appraised by Secretary, DEA and approved by CCEA.

10.11 **Bharatmala Pariyojana Phase-I**, delegations have further been enhanced. All PPP BOT (Toll) projects where no grant is to be given and construction, maintenance is to be financed by toll revenues will be appraised and approved by NHA Board. All BOT (Annuity) / HAM projects upto TPC of Rs. 2,000 crore excluding land cost will be appraised by the SFC chaired by Secretary (RTH) and approved by the Minister (RT&H). Other BOT (Annuity) / HAM projects to be appraised by Secretary (DEA) and approved by CCEA. All EPC projects of NHA to be approved by NHA Board within approved budgeted financial resources.

10.12 **Enhanced inter-Ministerial coordination:** In order to overcome multi stakeholder issues and enhance inter-ministerial coordination, an Infrastructure Group has been created under the Ministry headed by the Hon'ble Minister (RT&H) to resolve multi-stakeholder issues.

10.13 **Revival of languishing projects** has been undertaken through

- (i) 100% equity divestment two years from start of operations to enable developers to takeout equity and reinvest the same in the sector.
- (ii) Premium deferment allowing rescheduling of premium committed by concessionaires at the bidding stage.
- (iii) Extension of concession period for languishing to the extent of delay.
- (iv) One time fund infusion by NHA in languishing projects which are 50% complete.

### **Innovative project implementation models through risk rebalancing**

10.14 **Hybrid Annuity Model (HAM)** has been implemented. As per the model, 40% of Project Cost is to be provided by the Government as 'Construction Support' to the private developer during the construction period and the balance 60% as annuity payments over the operations period along with interest on outstanding amount. The payable interest rate is linked to market rates (Bank Rate +3.00%). There is separate provision for

O&M payments to the concessionaire. The private party does not have to bear the traffic and inflation risks.

10.15 **Monetisation of Assets through Toll – Operate – Transfer (TOT) Model**, under which CCEA allowed monetisation of NH stretches where the right of collection of Toll fees for a public funded project is assigned to a concessionaire for a predetermined period against upfront payment of a lump sum.

10.16 **Land Acquisition process** has been made streamlined through the following steps:

1. NHAI has directed its ROs to engage at least one LA support officer and the recruitment process has been initiated.
2. A proposal to appoint a legal officer in each RO is currently under consideration.
3. A Land Acquisition Manual has been created and shared with all field offices. The manual will be updated every 6 months.
4. NHAI ROs have been empowered to appoint supplementary arbitrators in high case load districts for speedy resolution of disputes.
5. The Ministry has developed a Web Portal (BhoomiRashi) for processing land acquisition notifications and payment of compensation thereof to the rightful owner of the land. Competent Authority for Land Acquisition (CALA) offices have been strengthened with additional manpower and infrastructure.

10.17 Further, explicit guidelines have issued in respect of standards for Road construction in hill areas to obviate prospects of hill-slope destabilization. To ameliorate environmental concerns, guidelines have also been issued that to the extent feasible, land for widening of an existing road should be acquired on one side so that tree-felling and utility shifting on the other side is avoided. To do away with sub optimal alignments, instructions have issued for using the concept of “as the crow flies” to design alignments so as to reduce the distance between two connected points the extent possible.

10.18 Details of Central Road Sector Outlay at the RE stage and Expenditure incurred are given in Table 9.2. It may be noted that the total budgetary support provided to MORTH, Market Borrowings by NHAI and Expenditure incurred has been increasing consistently over the years with expenditure varying between 94% to 98% of the Budget at the RE stage in the last three years. Private sector Investments have slowed down somewhat due to difficulties in the market conditions i.e. availability of finance from Banks in the face of growing NPAs, uncertainty in returns on account of projected traffic, investors preferring short term investment periods as against roads requiring long term financing etc.

10.19 The Expenditure(Actual) incurred in the Development and Maintenance of National Highways by MORTH by source

of financing in the last 6 years is given in table 9.3 Shows that Market Borrowing, Central Road Fund (CRF) cess, and Permanent Bridge Fee Fund (PBFF) constitute important sources of financing for the maintenance and construction of Highways.

10.20 Development and maintenance of NHs of 2-lane and below are primarily assigned to

State Governments viz. State PWDs for which Ministry provide funds from its budget to the respective States. **Table 10.4** provides State-wise allocations and expenditure made by States for the period 2014-15 to 2018-19 and shows an increasing trend in the total allocations and expenditure incurred to States for the construction of NH with the exception of the year 2017-18.

**Table 10.2 Central Road Sector Outlay (at RE stage) and Expenditure (At Current Price) for the period 2015-16 to 2018-19**

| Amount in Rs. crore                     |  |            |               |                 |                 |                 |                 |                 |                 |
|---|--|------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| S. No.                                  | Scheme   | 2015-16    |               | 2016-17         |                 | 2017-18         |                 | 2018-19         |                 |
|   |  | RE         | Expd          | RE              | Expd            | RE              | Expd.           | RE              | Expd.           |
| <b>Part A-Major Development Schemes</b> |  |            |               |                 |                 |                 |                 |                 |                 |
| 1                                       | EAP- (a)<br>Externally Aided<br>(RW)                       | 250        | 216.42        | 290             | 289.12          | 1,213.00        | 1,010.46        | 1,328.00        | 1,145.82        |
|   | EAP- (b)<br>Counterpart Fund<br>(RW)                       | 550        | 547           | 820             | 819.76          | 613             | 548.31          | 900             | 794.08          |
|   | <b>Total EAP</b>   | <b>800</b> | <b>763.42</b> | <b>1,110.00</b> | <b>1,108.88</b> | <b>1,826.00</b> | <b>1,558.77</b> | <b>2,228.00</b> | <b>1,939.90</b> |
| 2                                       | <b>NH (O)</b>  | 6,491.06   | 6,335.44      | 19,860.00       | 19,326.46       | 18,049.31       | 18,034.64       | 29,526.00       | 29,309.05       |
| 3                                       | Works under<br>BRDB incl.<br>Strategic Roads<br>under BRDB | 0          | 0             | 0               | 0               |                 |                 |                 |                 |
| 4                                       | Other Charges &<br>IT                                      | 6.5        | 5.42          | 8               | 6.93            | 7               | 4.74            | 7               | 5.73            |
| 5                                       | R&D & Training<br>and Quality<br>Assurance                 | 68.2       | 40.9          | 83              | 16.79           | 78.32           | 8.05            | 39.28           | 29.52           |
| 6                                       | Charged Expd.  | 10         | 6.92          | 10              | 8.22            | 10              | 5.54            | 10              | 0               |
| 7                                       | NHAI<br>(Investment)<br>(Cess)                             | 21,020.09  | 21,017.77     | 7,476.60        | 7,410.47        | 15,429.45       | 15,429.45       | 16,091.00       | 15,732.83       |
| 8                                       | Remittance of toll<br>receipts (NHDP +<br>non-NHDP)        | 6,500.00   | 6,500.00      | 7,500.00        | 7,500.00        | 8,462.14        | 8,462.14        | 10,600.00       | 10,600.00       |

Contd...



Contd... Table 10.2

| Amount in Rs. crore   |  |                  |                  |                    |                  |                    |                    |                  |                  |
|---|--|------------------|------------------|--------------------|------------------|--------------------|--------------------|------------------|------------------|
| S. No.  | Scheme   | 2015-16          |                  | 2016-17            |                  | 2017-18            |                    | 2018-19          |                  |
|   |  | RE               | Expd             | RE                 | Expd             | RE                 | Expd.              | RE               | Expd.            |
| 9   | E&I for States from CRF                                | 355.35           | 267.09           | 805                | 746.35           | 759.2              | 677.56             | 400              | 399.98           |
| 10  | <b>Special Packages</b>                                |                  |                  |                    |                  |                    |                    |                  |                  |
| (i)   | SARDP-NE   | 4,900.00         | 4,845.88         | 4,520.00           | 4,464.71         | 5,265.00           | 5,237.77           | 3,680.00         | 3,592.08         |
| (ii)  | LWE (including TSP) incl. Vijayawada-Ranchi Road       | 1,121.00         | 996.11           | 760                | 739.27           | 1,050.00           | 901.86             | 475              | 409.05           |
| (A)   | <b>Sub Total-Major schemes</b>                         | <b>41,272.20</b> | <b>40,778.95</b> | <b>42,132.60</b>   | <b>41,328.08</b> | <b>50,936.42</b>   | <b>50,320.52</b>   | <b>73,056.28</b> | <b>67,018.14</b> |
| <b>Part B- M&amp;R, CRF(State Roads), Transport, Sectt.</b> |  |                  |                  |                    |                  |                    |                    |                  |                  |
| 1   | Maintenance & Repairs (M&R) incl. Swachhata Activities | 2,698.40         | 2,527.99         | 2,845.23           | 2,502.99         | 2,966.75           | 2,654.78           | 2,100.00         | 1,650.52         |
| 2   | Central Road Fund(CRF)                                 | 2,880.90         | 2,398.10         | 7,175.00           | 5,069.82         | 6,764.48           | 6,367.11           | 7,421.58         | 6,868.66         |
| 3   | Permanent Bridge Fee Fund(PBFF)                        | 50               | 48.29            | 100                | 72.29            | 37.86              | 21.42              | 10.46            | 3.2              |
| 4   | NH Tribunals, NHs Administration, PIARC                | 1.57             | 0                | 3.57               | 0                | 3.57               | 0.22               | 0.07             | 0                |
| 5   | Transport Wing   | 150              | 133.45           | 143.5              | 127.23           | 171                | 144.36             | 273              | 142.49           |
| 6   | Secretariat Expenses                                   | 83.74            | 80.64            | 103.03             | 100.04           | 119.92             | 111.08             | 154.58           | 136.31           |
| (B)   | <b>Sub Total- Part B</b>                               | <b>5,864.61</b>  | <b>5,188.47</b>  | <b>10,370.33</b>   | <b>7,872.37</b>  | <b>10,063.58</b>   | <b>9,298.97</b>    | <b>9,959.69</b>  | <b>8,801.18</b>  |
| <b>Total (Gross Budgetary Support-MoRTH)</b>                |  | <b>47,136.81</b> | <b>45,967.42</b> | <b>52,502.93</b>   | <b>49,200.45</b> | <b>61,000.00</b>   | <b>59,619.49</b>   | <b>83,015.97</b> | <b>75,819.32</b> |
| (C)   | IEBR / Borrowings by NHAI                              | 42,694.50        | 23,281.00        | 59,279.00          | 33,118.00        | 59,279.00          | 50,533.00          | 75,000.00        | 74,988.00        |
| (D)   | <b>Grand Total (Budget)</b>                            | <b>89,831.31</b> | <b>69,248.42</b> | <b>1,11,781.93</b> | <b>82,318.45</b> | <b>1,20,279.00</b> | <b>1,10,152.49</b> | <b>158015.97</b> | <b>150807.32</b> |
| (E)   | Total Private Sector Investments                       |                  | 29,770.00        | 26,850.00          | 16,028.64        | 32,400.00          | 16,500.64          | 25000            | 21,926.00        |
| (F)   | <b>Grand Total</b>                                     | <b>89,831.31</b> | <b>99,018.42</b> | <b>1,38,631.93</b> | <b>98,347.09</b> | <b>1,52,679.00</b> | <b>1,26,653.13</b> | <b>183015.97</b> | <b>172733.32</b> |

Source: Planning Division, MoRTH

**Table 10.3 Expenditure (Actual) incurred in the Development and Maintenance of National Highways by MORTH by Source of Financing in the last 8 years**

(Amount in Rs. Crore)

| Year    | CRF Cess  | Additional GBS | GBS-NER* | Toll     |           | Market Borrowing | Pvt. Investment | Total       |
|---------|-----------|----------------|----------|----------|-----------|------------------|-----------------|-------------|
|         |           |                |          | TOT      | PBFF      |                  |                 |             |
| 2012-13 | 6,003     | 9,080.03       | 1,825.69 | -        | 1,882.95  | 2,902            | 20,305          | 41,998.67   |
| 2013-14 | 6,857.45  | 7,746.98       | 3,009.27 | -        | 4,829.81  | 7,942.00         | 22,515.00       | 52,900.51   |
| 2014-15 | 13,944.04 | 4,678.51       | 2,843.33 | -        | 5,485.98  | 3,343.40         | 19,232.00       | 49,527.26   |
| 2015-16 | 29,879.06 | 2,714.91       | 3,945.88 | -        | 6,548.29  | 23,281.00        | 29,770.00       | 96,139.14   |
| 2016-17 | 29,049.08 | 2,070.93       | 4,464.71 | -        | 7,572.29  | 33,118.00        | 16,029.00       | 92,304.01   |
| 2017-18 | 35,910.91 | 2,687.14       | 5,237.77 | -        | 8,483.56  | 50,533.00        | 16,500.00       | 1,19,352.38 |
| 2018-19 | 42,523.99 | 750.39         | 5,944.08 | 9,681.50 | 9,574.22  | 61,217.00        | 21,605.00       | 1,51,296.18 |
| 2019-20 | 45,511.26 | 1,175.34       | 5,982.08 | 5,000.00 | 10,603.20 | 74,988.00        | 21,926.00       | 1,65,185.88 |

Source: Planning Division, MoRTH

TOT: Toll Operate Transfer

PBFF: Permanent Bridge Fee Fund

\* Exclusively under SARDP-NE, apart from this, NH works in NER is also taken up under NH(O) for which financing is from CRF Cess and additional GBS.

**Table 10.4 The State/UT-wise details of Fund Allocation/Utilized for Development of NHs**

Amount in Rs. crore

| S. No. | States/UTs/<br>Schemes/ Agency | Allocation |          |          |          |          | Expenditure |          |          |          |          |
|--------|--------------------------------|------------|----------|----------|----------|----------|-------------|----------|----------|----------|----------|
|        |                                | 2014-15    | 2015-16  | 2016-17  | 2017-18  | 2018-19  | 2014-15     | 2015-16  | 2016-17  | 2017-18  | 2018-19  |
| 1      | Andhra Pradesh                 | 221.45     | 1,039.42 | 2,010.31 | 1,781.18 | 2,260.26 | 221.45      | 1,000.43 | 2,014.50 | 1,780.70 | 2,054.04 |
| 2      | Arunachal Pradesh              | 0.5        | 2.4      | 100      | 62.05    | 90       | 0.5         | 1.83     | 90.66    | 62.05    | 88.96    |
| 3      | Assam                          | 141.76     | 78.79    | 177.44   | 308.05   | 413.99   | 141.76      | 78.09    | 137.8    | 307.75   | 421.27   |
| 4      | Bihar                          | 276.65     | 706.92   | 1,362.64 | 1,689.90 | 1,598.31 | 276.65      | 707.86   | 1,331.61 | 1,523.88 | 1,554.30 |
| 5      | Chhattisgarh                   | 71.25      | 359.94   | 1,553.30 | 1,107.93 | 1,831.32 | 71.25       | 339.8    | 1,495.68 | 1,071.58 | 1,341.81 |
| 6      | Goa                            | 17.72      | 120      | 400      | 527.48   | 940      | 17.72       | 119.98   | 434.51   | 527.48   | 973.24   |
| 7      | Gujarat                        | 206.96     | 228.6    | 251.87   | 166.08   | 391.55   | 206.96      | 225.77   | 213.41   | 163.29   | 389.91   |
| 8      | Haryana                        | 60.48      | 90       | 150      | 105.17   | 330      | 60.48       | 89.85    | 161.27   | 105.17   | 374.8    |
| 9      | Himachal Pradesh               | 134.57     | 140      | 210.95   | 307.14   | 350.8    | 134.57      | 139.96   | 182.14   | 305.69   | 327.65   |
| 10     | Jammu & Kashmir                | 0          | 25       | 40.06    | 35.44    | 45       | 0           | 22.86    | 23.16    | 35.44    | 44.44    |
| 11     | Jharkhand                      | 63.83      | 35       | 200      | 260.88   | 320      | 63.83       | 38.08    | 212.5    | 260.88   | 319.96   |
| 12     | Karnataka                      | 269.72     | 633.43   | 783.52   | 1,240.99 | 1,630.02 | 269.72      | 639.55   | 871.96   | 1,202.70 | 1,560.90 |
| 13     | Kerala                         | 67.18      | 132.24   | 259.89   | 171.74   | 280.45   | 67.18       | 137.65   | 237.8    | 171.74   | 300.76   |
| 14     | Madhya Pradesh                 | 239.23     | 937.76   | 1,760.00 | 854.79   | 1,665.00 | 239.23      | 928.29   | 1,558.90 | 854.79   | 1,887.28 |
| 15     | Maharashtra                    | 190.04     | 431.2    | 1,371.92 | 2,966.03 | 7,050.88 | 190.04      | 423.28   | 1,154.00 | 2,964.15 | 7,445.16 |
| 16     | Manipur                        | 32.6       | 40       | 25.25    | 75.85    | 260.21   | 32.6        | 40       | 18.65    | 75.47    | 259.65   |
| 17     | Meghalaya                      | 43.3       | 15       | 41.27    | 30.22    | 70.97    | 43.3        | 15       | 28.44    | 28.28    | 57.76    |
| 18     | Mizoram                        | 39.53      | 35       | 40       | 41       | 80       | 39.53       | 28.5     | 46.13    | 41       | 79.91    |
| 19     | Nagaland                       | 46.2       | 50       | 50       | 38.27    | 200      | 46.2        | 46.27    | 38.84    | 38.27    | 199.76   |

Contd ...

...table 10.4 contd

| S. No. | States/UTs/<br>Schemes/ Agency  | Allocation      |                  |                  |                  |           | Expenditure     |                  |                  |                  |           |
|--------|---|-----------------|------------------|------------------|------------------|-----------|-----------------|------------------|------------------|------------------|-----------|
|        |   | 2014-15         | 2015-16          | 2016-17          | 2017-18          | 2018-19   | 2014-15         | 2015-16          | 2016-17          | 2017-18          | 2018-19   |
| 20     | Odisha  | 322.99          | 591.44           | 925.55           | 708.4            | 790.47    | 322.99          | 592.24           | 951.35           | 717.08           | 773.93    |
| 21     | Punjab  | 2,328.04        | 1,852.26         | 2,740.50         | 746.02           | 786.18    | 2,328.04        | 1,855.24         | 2,702.48         | 745.8            | 808.34    |
| 22     | Rajasthan   | 107.16          | 849.95           | 964.83           | 888.27           | 1,295.87  | 107.16          | 849.56           | 1,012.99         | 886.08           | 1,290.32  |
| 23     | Sikkim  | 0               | 0                | 0                | 5.09             | 0.73      | 0               | 0                | 0                | 5.09             | 0.09      |
| 24     | Tamil Nadu  | 167.13          | 337.02           | 575              | 664.48           | 870       | 167.13          | 336.47           | 640.11           | 664.48           | 883.95    |
| 25     | Telangana   | 210.79          | 661              | 380              | 409.93           | 1,220.00  | 210.79          | 657.1            | 358.43           | 409.93           | 1,212.83  |
| 26     | Tripura   | 0               | 5                | 5                | 61               | 50        | 0               | 0                | 2.38             | 61               | 50.42     |
| 27     | Uttar Pradesh   | 493.81          | 1,530.34         | 1,849.02         | 1,110.79         | 2,040.05  | 493.81          | 1,527.74         | 1,820.85         | 1,106.96         | 1,995.79  |
| 28     | Uttarakhand   | 169.51          | 245.92           | 332.62           | 980.67           | 1,000.49  | 169.51          | 245.69           | 314.48           | 980.14           | 1,010.76  |
| 29     | West Bengal   | 283.61          | 808.95           | 1,333.62         | 1,229.89         | 991       | 283.61          | 811.98           | 1,223.19         | 1,184.69         | 980.37    |
| 30     | Andaman &<br>Nicobar Islands  | 14.61           | 2                | 0.13             | 0                | 0         | 14.61           | 1.53             | 0.13             | 0                | 0         |
| 31     | Chandigarh  | 4.95            | 1                | 2                | 5.3              | 1.5       | 4.95            | 0                | 0.69             | 5.3              | 1.49      |
| 32     | Delhi   | 0.02            | 1                | 1                | 36               | 2         | 0.02            | 0                | 0.62             | 23.01            | 0         |
| 33     | Puducherry  | 12.73           | 20               | 20               | 13.63            | 2         | 12.73           | 18.1             | 14.28            | 13.63            | 0         |
| A      | <b>Sub Total (Sr. 1 to 33)</b>  | <b>6,238.32</b> | <b>12,006.58</b> | <b>19,917.68</b> | <b>18,629.66</b> | <b>3</b>  | <b>6,238.32</b> | <b>11,918.70</b> | <b>19,293.94</b> | <b>18,323.50</b> | <b>0</b>  |
| 34     | Other projects<br>under NH(O)*  | 761.17          | 515              | 781.38           | 214              | 30        | 715.68          | 445.55           | 779.72           | 211.92           | 12.64     |
| 35     | National<br>Highways<br>Authority of<br>India (NHAI)-<br>Cess*  | 6,885.89        | 15,420.00        | 2,326.50         | 12,429.45        |           | 6,885.89        | 15,420.00        | 2,326.50         | 12,429.45        |           |
| 36     | NHAI- Toll  | 5,448.00        | 6,500.00         | 7,500.00         | 8,462.14         | 28,892.05 | 5,448.00        | 6,500.00         | 7,500.00         | 8,462.14         | 28,702.49 |
| 37     | NHAI- NH(O)   | 600             | 370.27           | 5,389.02         | 3,900.00         | 2.75      | 600             | 370.27           | 5,389.02         | 3,900.00         | 2.36      |
| 38     | National<br>Highways &<br>Infrastructure<br>Development<br>Corporation<br>Ltd. (NHIDCL)<br>under NH(O)* | -               | 1.15             | 72.2             | 296              | 11,569.00 | -               | 1.15             | 72.2             | 296              | 11,569.00 |
| 39     | Border Roads<br>Organization<br>(BRO)*  | 292             | 0                | 0                | 0                | 9,570.13  | 268.79          | 0                | 0                | 0                | 9,570.13  |

Contd ...

...table 10.4 contd

| S. No. | States/UTs/ Schemes/ Agency   | Allocation       |                  |                  |                  |                  | Expenditure      |                  |                  |                  |                  |
|--------|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|        |   | 2014-15          | 2015-16          | 2016-17          | 2017-18          | 2018-19          | 2014-15          | 2015-16          | 2016-17          | 2017-18          | 2018-19          |
| 40     | Special Accelerated Road Development Programme for North-East Region (SARDP-NE) including Arunachal Package*                          | 3,000.00         | 4,900.00         | 4,520.00         | 4,865.00         | 0                | 2,843.33         | 4,803.07         | 4,464.71         | 4,837.77         | 0                |
| 41     | Special Programme for development of Roads In Left Wing Extremism affected Area (LWE) including Development of Vijayawada-Ranchi Road | 1,174.00         | 1,121.00         | 760              | 1,050.00         | 9,681.50         | 1,164.59         | 996.11           | 739.27           | 901.86           | 9,681.50         |
| 42     | Externally Aided Projects - Head Quarters#, NHAI, NHIDCL  | 276              | 45.83            | 59.38            | 316              | 1,000.00         | 239.93           | 9.25             | 56.72            | 283.41           | 1,000.00         |
| B      | <b>Sub Total (Sr. 34 to 42)</b>   | <b>18,437.06</b> | <b>28,873.25</b> | <b>21,408.48</b> | <b>31,532.59</b> | <b>135</b>       | <b>18,166.21</b> | <b>28,545.40</b> | <b>21,328.14</b> | <b>31,322.55</b> | <b>135</b>       |
|        | <b>Total (A+B)</b>  | <b>24,675.38</b> | <b>40,879.83</b> | <b>41,326.16</b> | <b>50,162.25</b> | <b>5,610.00</b>  | <b>24,404.53</b> | <b>40,464.10</b> | <b>40,622.08</b> | <b>49,646.05</b> | <b>5,345.00</b>  |
| 43     | IEBR / Borrowings by NHAI   | 7,611.11         | 42,694.50        | 59,279.00        | 59,279.00        | 905              | 3,343.40         | 23,281.00        | 33,118.00        | 50,533.00        | 552.03           |
|        |   |                  |                  |                  |                  | 222              |                  |                  |                  |                  | 219.23           |
|        |   |                  |                  |                  |                  | <b>38,695.38</b> |                  |                  |                  |                  | <b>38,074.25</b> |
|        |   |                  |                  |                  |                  | <b>67,587.43</b> |                  |                  |                  |                  | <b>66,776.74</b> |
|        |   |                  |                  |                  |                  | 62,000.00        |                  |                  |                  |                  | 61,217.00        |

Source: Planning Division MoRTH

\*- State/UT wise allocations are not made.

# ANNEXURES

**Total and Surfaced Road Length By Categories in India as on 31.03.2018**

(in km)

| S. No.                               | Category                 | Sub Category                 | Category wise Total Road length (% share of Total Road length) |           | Category wise Surfaced road length (% age of col. 4) |
|--------------------------------------|--------------------------|------------------------------|--|-----------|--|
| 1                                    | 2                        | 3                            | 4  |           | 5  |
| 1                                    | <b>National Highways</b> |                              | <b>126,350</b>   | <b>2</b>  | <b>126,350</b>                                       |
| 2                                    | <b>State Highways</b>    |                              | <b>186,908</b>   | <b>3</b>  | <b>185,495</b>                                       |
| 3                                    | <b>District roads</b>    |                              | <b>611,268</b>   | <b>10</b> | <b>580,064</b>                                       |
| 4                                    | <b>Rural Roads*</b>      |                              | <b>3,509,582</b>   | <b>56</b> | <b>2,295,053</b>                                     |
|                                      |                          | PMGSY Roads                  | 731,234  |           | 585,284  |
|                                      |                          | PWD/RWD Roads                | 775,970  |           | 633,340  |
|                                      |                          | Panchayati Raj Roads         | 2,002,379  |           | 1,076,429  |
| 5                                    | <b>Urban Roads</b>       |                              | <b>534,142</b>   | <b>9</b>  | <b>415,859</b>                                       |
|                                      |                          | Municipal Roads              | 502,647  |           | 385,460  |
|                                      |                          | MES Roads                    | 16,170   |           | 16,132   |
|                                      |                          | Major Port Roads             | 737  |           | 736  |
|                                      |                          | Minor Port Roads             | 380  |           | 347  |
|                                      |                          | Railway Roads                | 14,207   |           | 13,184   |
| 6                                    | <b>Project Roads</b>     |                              | <b>347,547</b>   | <b>6</b>  | <b>145,471</b>                                       |
|                                      |                          | Forest Department Roads      | 179,160  |           | 61,037   |
|                                      |                          | BRO Roads                    | 30,492   |           | 20,619   |
|                                      |                          | Coal Mine Roads              | 4,765  |           | 4,460  |
|                                      |                          | Electricity Department Roads | 7,235  |           | 6,733  |
|                                      |                          | Irrigation Department Roads  | 108,083  |           | 38,600   |
|                                      |                          | Sugarcane Authorities Roads  | 14,947   |           | 11,320   |
|                                      |                          | SAIL & NMDC Roads            | 2,865  |           | 2,701  |
| <b>Total* (Excluding JRY Roads)</b>  |                          |                              | <b>5,315,797</b>   |           | <b>3,748,292</b>                                     |
| <b>Total** (Including JRY Roads)</b> |                          |                              | <b>6,215,797</b>   |           | <b>3,931,494</b>                                     |

Note: (1) Totals may not add up due to rounding off of decimals

(2) \* excludes 9 lakh km length of rural roads constructed under Jawahar Rozgar Yojana (JRY) from 1990-1999.

(3) \*\* Includes 9 lakh km length of rural roads constructed under Jawahar Rozgar Yojana (JRY) from 1990-1999.

## Road Length By Categories and by type of Surface in India as on 31.03.2018

(in km)

| S. No.                               | Category                     | Sub Category                 | Total (6+7)      | Surfaced       |                  |                  | Un-surfaced      |
|--------------------------------------|------------------------------|------------------------------|------------------|----------------|------------------|------------------|------------------|
|                                      |                              |                              |                  | WBM/WMM        | BT/CC            | Total (4+5)      |                  |
| 1                                    | 2                            |                              | 3                | 4              | 5                | 6                | 7                |
| 1                                    | National Highways            |                              | 126,350          | 0              | 126,350          | 126,350          | 0                |
| 2                                    | State Highways               |                              | 186,908          | 1,235          | 184,260          | 185,495          | 1,413            |
| 3                                    | District roads               |                              | 611,268          | 32,272         | 547,793          | 580,064          | 31,204           |
| 4                                    | Rural Roads* (excluding JRY) |                              | 3,509,582        | 465,675        | 1,829,378        | 2,295,053        | 1,214,529        |
|                                      |                              | PMGSY Roads                  | 731,234          | 34,641         | 550,644          | 585,284          | 145,950          |
|                                      |                              | PWD/RWD Roads                | 775,970          | 70,241         | 563,099          | 633,340          | 142,630          |
|                                      |                              | Panchayati Raj Roads         | 2,002,379        | 360,794        | 715,635          | 1,076,429        | 925,949          |
| 5                                    | Urban Roads                  |                              | 534,142          | 41,172         | 374,687          | 415,859          | 118,283          |
|                                      |                              | Municipal Roads              | 502,647          | 39,118         | 346,343          | 385,460          | 117,187          |
|                                      |                              | MES Roads                    | 16,170           | 407            | 15,725           | 16,132           | 38               |
|                                      |                              | Major Port Roads             | 737              | 55             | 681              | 736              | 0                |
|                                      |                              | Minor Port Roads             | 380              | 24             | 323              | 347              | 34               |
|                                      |                              | Railway Roads                | 14,207           | 1,569          | 11,615           | 13,184           | 1,023            |
| 6                                    | Project Roads                |                              | 347,547          | 45,886         | 99,584           | 145,471          | 202,077          |
|                                      |                              | Forest Department Roads      | 179,160          | 23,751         | 37,285           | 61,037           | 118,123          |
|                                      |                              | BRO Roads                    | 30,492           | 867            | 19,752           | 20,619           | 9,873            |
|                                      |                              | Coal Mine Roads              | 4,765            | 629            | 3,831            | 4,460            | 305              |
|                                      |                              | Electricity Department Roads | 7,235            | 1,484          | 5,248            | 6,733            | 502              |
|                                      |                              | Irrigation Department Roads  | 108,083          | 18,314         | 20,286           | 38,600           | 69,483           |
|                                      |                              | Sugarcane Authorities Roads  | 14,947           | 5              | 11,315           | 11,320           | 3,626            |
|                                      |                              | SAIL & NMDC Roads            | 2,865            | 835            | 1,866            | 2,701            | 164              |
| <b>Total* (Excluding JRY Roads)</b>  |                              |                              | <b>5,315,797</b> | <b>586,240</b> | <b>3,162,052</b> | <b>3,748,292</b> | <b>1,567,506</b> |
| <b>Total** (Including JRY Roads)</b> |                              |                              | <b>6,215,797</b> | <b>769,442</b> | <b>3,162,052</b> | <b>3,931,494</b> | <b>2,284,304</b> |

Note: (1) Totals may not add up due to rounding off of decimals

(2) \* excludes 9 lakh km length of rural roads constructed under Jawahar Rozgar Yojana (JRY) from 1990-1999.

(3) \*\* Includes 9 lakh km length of rural roads constructed under Jawahar Rozgar Yojana (JRY) from 1990-1999.



**Total & Surfaced Length of Roads in India**  
As on 31.03.2018 (State/UT-wise)

(in km)

| S.No.          | Name of State/UT     | Total            | Surfaced         |
|----------------|----------------------|------------------|------------------|
| 1              | 2                    | 3                | 4                |
| 1              | Andhra Pradesh       | 218,190          | 130,102          |
| 2              | Arunachal Pradesh    | 50,555           | 33,476           |
| 3              | Assam                | 343,609          | 68,718           |
| 4              | Bihar                | 290,571          | 163,846          |
| 5              | Chhattisgarh         | 102,578          | 80,655           |
| 6              | Goa                  | 18,607           | 13,944           |
| 7              | Gujarat              | 201,742          | 179,429          |
| 8              | Haryana              | 50,021           | 43,205           |
| 9              | Himachal Pradesh     | 61,899           | 42,515           |
| 10             | Jammu And Kashmir    | 108,677          | 76,583           |
| 11             | Jharkhand            | 79,062           | 60,999           |
| 12             | Karnataka            | 354,505          | 213,619          |
| 13             | Kerala               | 257,085          | 178,223          |
| 14             | Madhya Pradesh       | 363,972          | 289,159          |
| 15             | Maharashtra          | 626,521          | 494,359          |
| 16             | Manipur              | 29,180           | 16,899           |
| 17             | Meghalaya            | 43,836           | 15,790           |
| 18             | Mizoram              | 13,374           | 8,142            |
| 19             | Nagaland             | 36,703           | 17,403           |
| 20             | Odisha               | 307,976          | 277,642          |
| 21             | Punjab               | 142,635          | 131,810          |
| 22             | Rajasthan            | 313,390          | 286,745          |
| 23             | Sikkim               | 13,510           | 9,094            |
| 24             | Tamilnadu            | 270,007          | 225,038          |
| 25             | Telangana            | 128,071          | 89,221           |
| 26             | Tripura              | 43,215           | 26,394           |
| 27             | Uttarakhand          | 52,848           | 37,930           |
| 28             | Uttar Pradesh        | 436,333          | 370,127          |
| 29             | West Bengal          | 329,126          | 140,057          |
| 30             | A & N Islands        | 1,794            | 1,648            |
| 31             | Chandigarh           | 2,539            | 2,539            |
| 32             | Dadra & Nagar Haveli | 1,187            | 1,187            |
| 33             | Daman & Diu          | 366              | 366              |
| 34             | Delhi                | 17,596           | 17,596           |
| 35             | Lakshadweep          | 224              | 224              |
| 36             | Puducherry           | 4,293            | 3,607            |
| <b>Total *</b> |                      | <b>5,315,797</b> | <b>3,748,292</b> |

\* Excluding JRY Roads

**Total Road Length and Percentage Share of Each Category of Road to total road length (1951-2018)**  
(in km)

| Year<br>(as on<br>31st<br>March) | National<br>Highways | State<br>Highways | Other PWD<br>Roads | District<br>Roads | Panchayat<br>Raj Roads | JRY &<br>PMGSY<br>Roads* | Rural<br>Roads built<br>by State<br>PWD /<br>RWD | Urban<br>Roads | Project<br>Roads | Surfaced  | Total<br>(Col.<br>2+3+4+5+6<br>+7+8+9+10<br>) |
|----------------------------------|----------------------|-------------------|--------------------|-------------------|------------------------|--------------------------|--|----------------|------------------|-----------|---|
| 1                                | 2                    | 3                 | 4                  | 5                 | 6                      | 7                        | 8  | 9              | 10               | 11        | 12  |
| 1951                             | 19,811               |                   | 173,723            |                   | 206,408                | 0                        |  | 0              | 0                | 157,019   | 399,942                                       |
|                                  | 5                    | 0                 | 43                 |                   | 52                     | 0                        |  | 0              | 0                | 39        | 100   |
| 1961                             | 23,798               |                   | 257,125            |                   | 197,194                | 0                        |  | 46,361         | 0                | 263,052   | 524,478                                       |
|                                  | 5                    | 0                 | 49                 |                   | 38                     | 0                        |  | 9              | 0                | 50        | 100   |
| 1971                             | 23,838               | 56,765            | 276,833            |                   | 354,530                | 0                        |  | 72,120         | 130,893          | 397,948   | 914,979                                       |
|                                  | 3                    | 6                 | 30                 |                   | 39                     | 0                        |  | 8              | 14               | 43        | 100   |
| 1981                             | 31,671               | 94,359            | 421,895            |                   | 628,865                | 0                        |  | 123,120        | 185,511          | 683,676   | 1,485,421                                     |
|                                  | 2                    | 6                 | 28                 |                   | 42                     | 0                        |  | 8              | 12               | 46        | 100   |
| 1991                             | 33,650               | 127,311           | 509,435            |                   | 931,288                | 329,142                  |  | 186,799        | 209,737          | 1,090,167 | 2,327,362                                     |
|                                  | 1                    | 5                 | 22                 |                   | 40                     | 14                       |  | 8              | 9                | 47        | 100   |
| 2001                             | 57,737               | 132,100           | 736,001            |                   | 1,068,020              | 903,996                  |  | 252,001        | 223,665          | 1,601,745 | 3,373,520                                     |
|                                  | 2                    | 4                 | 22                 |                   | 32                     | 27                       |  | 7              | 7                | 47        | 100   |
| 2002                             | 58,112               | 137,711           | 695,335            |                   | 1,134,326              | 926,697                  |  | 250,295        | 224,124          | 1,661,555 | 3,426,600                                     |
|                                  | 2                    | 4                 | 20                 |                   | 33                     | 27                       |  | 7              | 7                | 48        | 100   |
| 2003                             | 58,112               | 134,807           | 696,960            |                   | 1,155,491              | 926,697                  |  | 297,259        | 259,328          | 1,701,258 | 3,528,654                                     |
|                                  | 2                    | 4                 | 20                 |                   | 33                     | 26                       |  | 8              | 7                | 48        | 100   |
| 2004                             | 65,569               | 133,177           | 719,257            |                   | 1,189,058              | 951,511                  |  | 301,310        | 261,625          | 1,760,768 | 3,621,507                                     |
|                                  | 2                    | 4                 | 20                 |                   | 33                     | 26                       |  | 8              | 7                | 49        | 100   |
| 2005                             | 65,569               | 144,396           | 786,230            |                   | 1,299,463              | 966,976                  |  | 286,707        | 259,815          | 1,795,298 | 3,809,156                                     |
|                                  | 2                    | 4                 | 21                 |                   | 34                     | 25                       |  | 8              | 7                | 47        | 100   |
| 2006                             | 66,590               | 148,090           | 803,669            |                   | 1,318,258              | 989,867                  |  | 291,991        | 262,186          | 1,858,684 | 3,880,651                                     |
|                                  | 2                    | 4                 | 21                 |                   | 34                     | 26                       |  | 8              | 7                | 48        | 100   |
| 2007                             | 66,590               | 152,235           | 835,003            |                   | 1,372,867              | 1,020,621                |  | 300,580        | 268,505          | 1,944,758 | 4,016,401                                     |
|                                  | 2                    | 4                 | 21                 |                   | 34                     | 25                       |  | 7              | 7                | 48        | 100   |
| 2008                             | 66,754               | 154,522           | 863,241            |                   | 1,388,750              | 1,061,809                |  | 304,327        | 270,189          | 2,036,063 | 4,109,592                                     |
|                                  | 2                    | 4                 | 21                 |                   | 34                     | 26                       |  | 7              | 7                | 50        | 100   |
| 2009                             | 70,548               | 158,497           | 962,880            |                   | 1,514,952              | 1,114,213                |  | 373,802        | 276,617          | 2,324,504 | 4,471,510                                     |
|                                  | 2                    | 4                 | 22                 |                   | 34                     | 25                       |  | 8              | 6                | 52        | 100   |
| 2010                             | 70,934               | 160,177           | 977,414            |                   | 1,518,205              | 1,174,330                |  | 402,448        | 278,931          | 2,432,813 | 4,582,439                                     |
|                                  | 2                    | 3                 | 21                 |                   | 33                     | 26                       |  | 9              | 6                | 53        | 100   |
| 2011                             | 70,934               | 163,898           | 998,895            |                   | 1,530,366              | 1,219,438                |  | 411,679        | 281,628          | 2,524,682 | 4,676,838                                     |
|                                  | 2                    | 4                 | 21                 |                   | 33                     | 26                       |  | 9              | 6                | 54        | 100   |
| 2012                             | 76,818               | 164,360           | 1,022,287          |                   | 1,587,787              | 1,250,433                |  | 464,294        | 299,415          | 2,698,590 | 4,865,394                                     |
|                                  | 2                    | 3                 | 21                 |                   | 33                     | 26                       |  | 10             | 6                | 55        | 100   |
| 2013                             | 79,116               | 169,227           | 1,066,747          |                   | 1,725,318              | 1,434,321                |  | 446,238        | 310,955          | 3,171,002 | 5,231,922                                     |
|                                  | 2                    | 3                 | 20                 |                   | 33                     | 27                       |  | 9              | 6                | 61        | 100   |
| 2014                             | 91,287               | 170,818           | 1,082,267          |                   | 1,800,747              | 1,503,581                |  | 457,467        | 296,319          | 25,335    | 5,402,486                                     |
|                                  | 2                    | 3                 | 20                 |                   | 33                     | 28                       |  | 8              | 5                | 0         | 100   |
| 2015                             | 97,991               | 167,109           | 1,101,178          |                   | 1,831,043              | 1,506,212                |  | 467,106        | 301,505          | 3,341,008 | 5,472,144                                     |
|                                  | 2                    | 3                 | 20                 |                   | 33                     | 28                       |  | 9              | 6                | 61        | 100   |
| 2016                             | 101,011              | 176,166           |                    | 561,940           | 1,860,573              | 1,526,377                | 548,387  | 509,730        | 319,109          | 3,501,906 | 5,603,293                                     |
|                                  | 2                    | 3                 |                    | 10                | 33                     | 27                       | 10   | 9              | 6                | 62        | 100   |
| 2017                             | 114,158              | 175,036           |                    | 586,181           | 1,935,693              | 1,584,343                | 646,880  | 526,483        | 328,897          | 3,729,781 | 5,897,671                                     |
|                                  | 2                    | 3                 |                    | 10                | 33                     | 27                       | 11   | 9              | 6                | 64        | 100   |
| 2018                             | 126,350              | 186,908           |                    | 611,268           | 2,002,379              | 1,631,234                | 775,970  | 534,142        | 347,547          | 3,748,291 | 6,215,797                                     |
|                                  | 2                    | 3                 |                    | 10                | 32                     | 26                       | 13   | 9              | 6                | 63        | 100   |

# Included in Other PWD Roads. Totals may not add up because of rounding off of decimals.

Note: The second row of each year indicates the percentage share of each category of roads to the total road length.

\* Includes roads constructed under PMGSY launched in December 2000 and JRY launched in 1989-90.

JRY road lengths for years since 1996-97 are the same as on 31.3.1996.

**Length of National Highways in India as on 31.03.2018 (State/UT-Wise)**  
(in km)

| S. No.       | Name of State/ UT        | Length of NH   |
|--------------|--------------------------|----------------|
| 1            | Andhra Pradesh           | 6,412          |
| 2            | Arunachal Pradesh        | 2,537          |
| 3            | Assam                    | 3,909          |
| 4            | Bihar                    | 4,877          |
| 5            | Chhattisgarh             | 3,592          |
| 6            | Goa                      | 293            |
| 7            | Gujarat                  | 6,050          |
| 8            | Haryana                  | 2,788          |
| 9            | Himachal Pradesh         | 2,607          |
| 10           | Jammu & Kashmir          | 2,327          |
| 11           | Jharkhand                | 2,686          |
| 12           | Karnataka                | 7,266          |
| 13           | Kerala                   | 1,781          |
| 14           | Madhya Pradesh           | 8,219          |
| 15           | Maharashtra              | 17,728         |
| 16           | Manipur                  | 1,751          |
| 17           | Meghalaya                | 1,155          |
| 18           | Mizoram                  | 1,423          |
| 19           | Nagaland                 | 1,548          |
| 20           | Odisha                   | 5,430          |
| 21           | Punjab                   | 3,269          |
| 22           | Rajasthan                | 8,916          |
| 23           | Sikkim                   | 463            |
| 24           | Tamil Nadu               | 6,741          |
| 25           | Telangana                | 3,795          |
| 26           | Tripura                  | 854            |
| 27           | Uttarakhand              | 2,949          |
| 28           | Uttar Pradesh            | 11,376         |
| 29           | West Bengal              | 3,074          |
| 30           | Andaman & Nicobar Island | 332            |
| 31           | Chandigarh               | 15             |
| 32           | Dadar & Nagar Haveli     | 31             |
| 33           | Daman & Diu              | 22             |
| 34           | Delhi                    | 70             |
| 35           | Lakshadweep              | 0              |
| 36           | Puducherry               | 64             |
| <b>Total</b> |                          | <b>126,350</b> |

Source : Roads Wing : Ministry of Road Transport & Highways

Note: All National Highways are surfaced

## Lane wise Length of National Highways in India as on 31.03.2018

(in km)

| S. No.       | Name of State/ UT        | Total Length   | Less than Two-Lane | Two-Lane      | Four-Lane and above |
|--------------|--------------------------|----------------|--------------------|---------------|---------------------|
| 1            | Andhra Pradesh           | 6,412          | 848                | 3,590         | 1,974               |
| 2            | Arunachal Pradesh        | 2,537          | 1,757              | 758           | 22                  |
| 3            | Assam                    | 3,909          | 1,196              | 2,598         | 115                 |
| 4            | Bihar                    | 4,877          | 417                | 3,631         | 829                 |
| 5            | Chhattisgarh             | 3,592          | 257                | 2,850         | 485                 |
| 6            | Goa                      | 293            | 62                 | 174           | 57                  |
| 7            | Gujarat                  | 6,050          | 1,532              | 2,100         | 2,418               |
| 8            | Haryana                  | 2,788          | 180                | 1,191         | 1,417               |
| 9            | Himachal Pradesh         | 2,607          | 979                | 1,591         | 37                  |
| 10           | Jammu & Kashmir          | 2,327          | 411                | 1,694         | 222                 |
| 11           | Jharkhand                | 2,686          | 116                | 2,192         | 378                 |
| 12           | Karnataka                | 7,266          | 1,425              | 3,748         | 2,093               |
| 13           | Kerala                   | 1,781          | 294                | 1,350         | 137                 |
| 14           | Madhya Pradesh           | 8,219          | 3,101              | 3,438         | 1,680               |
| 15           | Maharashtra              | 17,728         | 10,170             | 3,779         | 3,779               |
| 16           | Manipur                  | 1,751          | 277                | 1,442         | 32                  |
| 17           | Meghalaya                | 1,155          | 564                | 534           | 57                  |
| 18           | Mizoram                  | 1,423          | 1,115              | 308           | 0                   |
| 19           | Nagaland                 | 1,548          | 1,460              | 88            | 0                   |
| 20           | Odisha                   | 5,430          | 141                | 4,387         | 902                 |
| 21           | Punjab                   | 3,269          | 527                | 1,417         | 1,325               |
| 22           | Rajasthan                | 8,916          | 438                | 5,770         | 2,708               |
| 23           | Sikkim                   | 463            | 171                | 292           | 0                   |
| 24           | Tamil Nadu               | 6,741          | 1,760              | 2,746         | 2,235               |
| 25           | Telangana                | 3,795          | 1,222              | 1,608         | 965                 |
| 26           | Tripura                  | 854            | 556                | 298           | 0                   |
| 27           | Uttarakhand              | 2,949          | 2,183              | 664           | 102                 |
| 28           | Uttar Pradesh            | 11,376         | 3,017              | 5,606         | 2,753               |
| 29           | West Bengal              | 3,074          | 279                | 1,698         | 1,097               |
| 30           | Andaman & Nicobar Island | 332            | 299                | 32            | 1                   |
| 31           | Chandigarh               | 15             | 0                  | 0             | 15                  |
| 32           | Dadar & Nagar Haveli     | 31             | 31                 | 0             | 0                   |
| 33           | Daman & Diu              | 22             | 22                 | 0             | 0                   |
| 34           | Delhi                    | 70             | 1                  | -7            | 76                  |
| 35           | Lakshadweep              | 0              | 0                  | 0             | 0                   |
| 36           | Puducherry               | 64             | 0                  | 40            | 24                  |
| <b>Total</b> |                          | <b>126,350</b> | <b>36,808</b>      | <b>61,607</b> | <b>27,935</b>       |

Source : Roads Wing Ministry of Road Transport & Highways

Note: All National Highways are surfaced.

**Total and Surfaced Length of State Highways in India as on 31.03.2018**  
(State/UT-wise)

(in km)

| S.No.        | Name of State/UT         | Total          | Surfaced       |
|--------------|--------------------------|----------------|----------------|
| 1            | 2                        | 3              | 4              |
| 1            | Andhra Pradesh           | 13,604         | 13,604         |
| 2            | Arunachal Pradesh \$     | 13,500         | 13,500         |
| 3            | Assam                    | 2,530          | 2,459          |
| 4            | Bihar                    | 4,006          | 4,006          |
| 5            | Chhattisgarh             | 4,176          | 4,076          |
| 6            | Goa                      | 280            | 280            |
| 7            | Gujarat                  | 17,201         | 16,983         |
| 8            | Haryana                  | 1,801          | 1,801          |
| 9            | Himachal Pradesh         | 827            | 782            |
| 10           | Jammu & Kashmir          | 310            | 310            |
| 11           | Jharkhand                | 1,232          | 1,232          |
| 12           | Karnataka                | 19,521         | 19,497         |
| 13           | Kerala                   | 4,342          | 4,342          |
| 14           | Madhya Pradesh           | 11,389         | 11,389         |
| 15           | Maharashtra              | 38,999         | 38,134         |
| 16           | Manipur                  | 715            | 715            |
| 17           | Meghalaya                | 781            | 781            |
| 18           | Mizoram                  | 170            | 170            |
| 19           | Nagaland                 | 722            | 722            |
| 20           | Odisha                   | 4,138          | 4,138          |
| 21           | Punjab                   | 1,103          | 1,103          |
| 22           | Rajasthan                | 15,085         | 15,012         |
| 23           | Sikkim                   | 663            | 663            |
| 24           | Tamil Nadu               | 11,830         | 11,830         |
| 25           | Telangana                | 2,149          | 2,147          |
| 26           | Tripura                  | 1,057          | 1,057          |
| 27           | Uttarakhand              | 4,387          | 4,373          |
| 28           | Uttar Pradesh            | 6,810          | 6,810          |
| 29           | West Bengal              | 3,262          | 3,262          |
| 30           | Andaman & Nicobar Island | 257            | 257            |
| 31           | Chandigarh               | 9              | 9              |
| 32           | Dadra & Nagar Haveli     | 30             | 30             |
| 33           | Daman & Diu              | 22             | 22             |
| 34           | Delhi                    | 0              | 0              |
| 35           | Lakshadweep              | 0              | 0              |
| 36           | Puducherry               | 0              | 0              |
| <b>Total</b> |                          | <b>186,908</b> | <b>185,495</b> |

*State Highways are constructed by State PWD/ Roads & Bridges Depts.*

*Note: \$ Figure for Arunachal Pradesh pertain to roads under State PWD. Arunachal Pradesh has not yet made official classification of State Roads into State Highways, Major District Roads (MDR) and Other District Roads (ODR).*

**Length of State Highways in India - By Type of Surface as on 31.03.2018 (State/UT-wise)**  
(in km)

| S.No.        | Name of State/UT       | Total Length<br>(6+7) | Surfaced     |                |                | Un-surfaced  |
|--------------|------------------------|-----------------------|--------------|----------------|----------------|--------------|
|              |                        |                       | WBM/WMM      | BT/CC          | Total (4+5)    |              |
| 1            | 2                      | 3                     | 4            | 5              | 6              | 7            |
| 1            | Andhra Pradesh         | 13,604                | 0            | 13,604         | 13,604         | 0            |
| 2            | Arunachal Pradesh *    | 13,500                | 0            | 13,500         | 13,500         | 0            |
| 3            | Assam                  | 2,530                 | 0            | 2,459          | 2,459          | 71           |
| 4            | Bihar                  | 4,006                 | 0            | 4,006          | 4,006          | 0            |
| 5            | Chhattisgarh           | 4,176                 | 158          | 3,918          | 4,076          | 100          |
| 6            | Goa                    | 280                   | 6            | 274            | 280            | 0            |
| 7            | Gujarat*               | 17,201                | 29           | 16,954         | 16,983         | 218          |
| 8            | Haryana                | 1,801                 | 3            | 1,798          | 1,801          | 0            |
| 9            | Himachal Pradesh *     | 827                   | 0            | 782            | 782            | 45           |
| 10           | Jammu & Kashmir        | 310                   | 0            | 310            | 310            | 0            |
| 11           | Jharkhand              | 1,232                 | 0            | 1,232          | 1,232          | 0            |
| 12           | Karnataka              | 19,521                | 196          | 19,301         | 19,497         | 24           |
| 13           | Kerala                 | 4,342                 | 0            | 4,342          | 4,342          | 0            |
| 14           | Madhya Pradesh         | 11,389                | 0            | 11,389         | 11,389         | 0            |
| 15           | Maharashtra §          | 38,999                | 517          | 37,617         | 38,134         | 865          |
| 16           | Manipur*               | 715                   | 60           | 655            | 715            | 0            |
| 17           | Meghalaya              | 781                   | 26           | 755            | 781            | 0            |
| 18           | Mizoram                | 170                   | 0            | 170            | 170            | 0            |
| 19           | Nagaland               | 722                   | 199          | 524            | 722            | 0            |
| 20           | Odisha                 | 4,138                 | 9            | 4,128          | 4,138          | 0            |
| 21           | Punjab*                | 1,103                 | 0            | 1,103          | 1,103          | 0            |
| 22           | Rajasthan              | 15,085                | 4            | 15,008         | 15,012         | 73           |
| 23           | Sikkim                 | 663                   | 0            | 663            | 663            | 0            |
| 24           | Tamil Nadu             | 11,830                | 0            | 11,830         | 11,830         | 0            |
| 25           | Telangana              | 2,149                 | 0            | 2,147          | 2,147          | 2            |
| 26           | Tripura                | 1,057                 | 0            | 1,057          | 1,057          | 0            |
| 27           | Uttarakhand            | 4,387                 | 27           | 4,345          | 4,373          | 14           |
| 28           | Uttar Pradesh          | 6,810                 | 0            | 6,810          | 6,810          | 0            |
| 29           | West Bengal            | 3,262                 | 0            | 3,262          | 3,262          | 0            |
| 30           | A & N Island           | 257                   | 0            | 257            | 257            | 0            |
| 31           | Chandigarh             | 9                     | 0            | 9              | 9              | 0            |
| 32           | Dadra & Nagar Haveli * | 30                    |              | 30             | 30             | 0            |
| 33           | Daman & Diu *          | 22                    | 0            | 22             | 22             | 0            |
| 34           | Delhi                  | 0                     |              |                | 0              |              |
| 35           | Lakshadweep            | 0                     | 0            | 0              | 0              | 0            |
| 36           | Puducherry             | 0                     | 0            | 0              | 0              | 0            |
| <b>Total</b> |                        | <b>186,908</b>        | <b>1,235</b> | <b>184,260</b> | <b>185,495</b> | <b>1,413</b> |

State Highways are constructed by State PWD/ Roads & Bridges Depts.

Note: § Figure for Arunachal Pradesh pertain to roads under State PWD. Arunachal Pradesh has not yet made official classification of State Roads into State Highways, Major District Roads (MDR) and Other District Roads (ODR).

\* Figures is as on 31/03/2017-Data not received.

§ Figures is as on 31/03/2017-Data partially received.

**Total & Surfaced Length of District Roads as on 31.03.2018 (State/UT-Wise)**  
(in km)

| S.No.        | Name of State/UT         | Total          | Surfaced       |
|--------------|--------------------------|----------------|----------------|
| 1            | 2                        | 3              | 4              |
| 1            | Andhra Pradesh           | 32,711         | 31,096         |
| 2            | Arunachal Pradesh @      | 8,731          | 4,659          |
| 3            | Assam                    | 6,093          | 4,755          |
| 4            | Bihar                    | 11,145         | 11,145         |
| 5            | Chhattisgarh             | 11,965         | 11,648         |
| 6            | Goa                      | 1,191          | 1,191          |
| 7            | Gujarat*                 | 30,809         | 30,228         |
| 8            | Haryana                  | 21,897         | 21,897         |
| 9            | Himachal Pradesh         | 3,647          | 3,555          |
| 10           | Jammu & Kashmir          | 19,695         | 18,990         |
| 11           | Jharkhand                | 10,476         | 10,476         |
| 12           | Karnataka                | 49,952         | 49,121         |
| 13           | Kerala                   | 27,470         | 27,470         |
| 14           | Madhya Pradesh           | 45,524         | 45,524         |
| 15           | Maharashtra              | 109,530        | 99,617         |
| 16           | Manipur*                 | 9,467          | 4,844          |
| 17           | Meghalaya                | 5,023          | 4,204          |
| 18           | Mizoram                  | 1,714          | 1,610          |
| 19           | Nagaland                 | 6,467          | 3,691          |
| 20           | Odisha                   | 17,877         | 17,877         |
| 21           | Punjab*                  | 6,980          | 6,980          |
| 22           | Rajasthan                | 23,670         | 23,057         |
| 23           | Sikkim                   | 1,469          | 732            |
| 24           | Tamil Nadu               | 46,496         | 46,496         |
| 25           | Telangana                | 25,372         | 24,069         |
| 26           | Tripura                  | 461            | 461            |
| 27           | Uttarakhand              | 4,906          | 4,562          |
| 28           | Uttar Pradesh            | 56,314         | 56,314         |
| 29           | West Bengal              | 10,449         | 10,424         |
| 30           | Andaman & Nicobar Island | 180            | 180            |
| 31           | Chandigarh*              | 83             | 83             |
| 32           | Dadra & Nagar Haveli     | 190            | 190            |
| 33           | Daman & Diu              | 59             | 59             |
| 34           | Delhi                    | 2,462          | 2,462          |
| 35           | Lakshadweep              | 0              | 0              |
| 36           | Puducherry               | 793            | 397            |
| <b>Total</b> |                          | <b>611,268</b> | <b>580,064</b> |

*Notes: The District Roads comprise Major District Roads & Other District Roads constructed and maintained by State PWD/ Roads & Bridges Depts.*

*@ Arunachal Pradesh has not yet made official classification of State Roads into State Highways, Major District Roads (MDR) and Other District Roads (ODR).*

*\* Figures is as on 31/03/2017-Data not received.*

*Differences in sum on account of rounding off of decimals.*

## Length of District Roads - By Type of Surface as on 31.03.2018 (State/UT-wise)

(in km)

| S.No.        | Name of State/UT      | Total Length   | Surfaced      |                |                | Un-Surfaced   |
|--------------|-----------------------|----------------|---------------|----------------|----------------|---------------|
|              |                       |                | WBM/WMM       | BT/CC          | Total (4+5)    |               |
| 1            | 2                     | 3              | 4             | 5              | 6              | 7             |
| 1            | Andhra Pradesh        | 32,711         | 297           | 30,799         | 31,096         | 1,615         |
| 2            | Arunachal Pradesh     | 8,731          | 1,633         | 3,025          | 4,659          | 4,072         |
| 3            | Assam                 | 6,093          | 0             | 4,755          | 4,755          | 1,338         |
| 4            | Bihar                 | 11,145         | 0             | 11,145         | 11,145         | 0             |
| 5            | Chhattisgarh          | 11,965         | 350           | 11,298         | 11,648         | 317           |
| 6            | Goa                   | 1,191          | 1             | 1,190          | 1,191          | 1             |
| 7            | Gujarat*              | 30,809         | 293           | 29,935         | 30,228         | 581           |
| 8            | Haryana               | 21,897         | 4             | 21,893         | 21,897         | 0             |
| 9            | Himachal Pradesh      | 3,647          | 27            | 3,528          | 3,555          | 91            |
| 10           | Jammu & Kashmir       | 19,695         | 8,141         | 10,849         | 18,990         | 705           |
| 11           | Jharkhand             | 10,476         | 0             | 10,476         | 10,476         | 0             |
| 12           | Karnataka             | 49,952         | 1,501         | 47,619         | 49,121         | 831           |
| 13           | Kerala                | 27,470         | 0             | 27,470         | 27,470         | 0             |
| 14           | Madhya Pradesh        | 45,524         | 0             | 45,524         | 45,524         | 0             |
| 15           | Maharashtra \$        | 109,530        | 15,764        | 83,853         | 99,617         | 9,913         |
| 16           | Manipur*              | 9,467          | 904           | 3,940          | 4,844          | 4,623         |
| 17           | Meghalaya             | 5,023          | 278           | 3,926          | 4,204          | 819           |
| 18           | Mizoram               | 1,714          | 0             | 1,610          | 1,610          | 104           |
| 19           | Nagaland              | 6,467          | 1,780         | 1,911          | 3,691          | 2,776         |
| 20           | Odisha                | 17,877         | 963           | 16,914         | 17,877         | 0             |
| 21           | Punjab*               | 6,980          | 0             | 6,980          | 6,980          | 0             |
| 22           | Rajasthan             | 23,670         | 17            | 23,040         | 23,057         | 613           |
| 23           | Sikkim                | 1,469          | 38            | 694            | 732            | 736           |
| 24           | Tamil Nadu            | 46,496         | 0             | 46,496         | 46,496         | 0             |
| 25           | Telangana             | 25,372         | 181           | 23,888         | 24,069         | 1,303         |
| 26           | Tripura               | 461            | 0             | 461            | 461            | 0             |
| 27           | Uttarakhand           | 4,906          | 40            | 4,522          | 4,562          | 343           |
| 28           | Uttar Pradesh         | 56,314         | 0             | 56,314         | 56,314         | 0             |
| 29           | West Bengal           | 10,449         | 59            | 10,365         | 10,424         | 25            |
| 30           | A & N Island          | 180            | 0             | 180            | 180            | 0             |
| 31           | Chandigarh*           | 83             | 0             | 83             | 83             | 0             |
| 32           | Dadra & Nagar Haveli* | 190            | 0             | 190            | 190            | 0             |
| 33           | Daman & Diu           | 59             | 0             | 59             | 59             | 0             |
| 34           | Delhi \$              | 2,462          | 0             | 2,462          | 2,462          | 0             |
| 35           | Lakshadweep           | 0              | 0             | 0              | 0              | 0             |
| 36           | Puducherry            | 793            | 1             | 396            | 397            | 397           |
| <b>Total</b> |                       | <b>611,268</b> | <b>32,272</b> | <b>547,793</b> | <b>580,064</b> | <b>31,204</b> |

Notes: The District Roads comprise Major District Roads & Other District Roads constructed and maintained by State PWD/ Roads & Bridges Depts.

\* Figures is as on 31/03/2017-Data not received.

\$ Figures is as on 31/03/2017-Data partially received.



**Total & Surfaced Length of Rural Roads As on 31.03.2018 (State/UT-wise)**  
(in km)

| S.No.                              | Name of State/UT     | Total            | Surfaced         |
|------------------------------------|----------------------|------------------|------------------|
| 1                                  | 2                    | 3                | 4                |
| 1                                  | Andhra Pradesh       | 135,938          | 57,142           |
| 2                                  | Arunachal Pradesh    | 20,807           | 9,466            |
| 3                                  | Assam                | 303,672          | 52,700           |
| 4                                  | Bihar                | 258,800          | 139,219          |
| 5                                  | Chhattisgarh         | 54,308           | 42,955           |
| 6                                  | Goa                  | 15,618           | 11,218           |
| 7                                  | Gujarat              | 86,030           | 76,520           |
| 8                                  | Haryana              | 7,027            | 5,614            |
| 9                                  | Himachal Pradesh     | 43,490           | 29,174           |
| 10                                 | Jammu And Kashmir    | 65,848           | 45,787           |
| 11                                 | Jharkhand            | 43,564           | 34,918           |
| 12                                 | Karnataka            | 215,928          | 100,711          |
| 13                                 | Kerala               | 181,335          | 114,325          |
| 14                                 | Madhya Pradesh       | 232,331          | 188,887          |
| 15                                 | Maharashtra          | 414,728          | 310,630          |
| 16                                 | Manipur              | 15,817           | 8,310            |
| 17                                 | Meghalaya            | 36,348           | 9,365            |
| 18                                 | Mizoram              | 6,124            | 3,705            |
| 19                                 | Nagaland             | 26,895           | 10,613           |
| 20                                 | Odisha               | 233,790          | 223,313          |
| 21                                 | Punjab               | 102,267          | 101,621          |
| 22                                 | Rajasthan            | 213,572          | 202,598          |
| 23                                 | Sikkim               | 10,180           | 6,538            |
| 24                                 | Tamilnadu            | 169,853          | 130,178          |
| 25                                 | Telangana            | 81,954           | 47,172           |
| 26                                 | Tripura              | 38,823           | 23,578           |
| 27                                 | Uttarakhand          | 29,809           | 20,465           |
| 28                                 | Uttar Pradesh        | 255,942          | 232,337          |
| 29                                 | West Bengal          | 204,688          | 52,193           |
| 30                                 | A & N Islands        | 557              | 488              |
| 31                                 | Chandigarh           | 0                | 0                |
| 32                                 | Dadra & Nagar Haveli | 853              | 853              |
| 33                                 | Daman & Diu          | 116              | 116              |
| 34                                 | Delhi                | 0                | 0                |
| 35                                 | Lakshadweep          | 217              | 217              |
| 36                                 | Puducherry           | 2,354            | 2,126            |
| <b>Total (Excluding JRY Roads)</b> |                      | <b>3,509,582</b> | <b>2,295,053</b> |
| <b>Total (Including JRY Roads)</b> |                      | <b>4,409,582</b> | <b>2,478,255</b> |

*Notes: The Rural Roads comprise of PMGSY, rural roads built by State PWD/RWD & those constructed by Panchayati Raj Roads*

**Length of PMGSY Roads - By type of Surface as on 31st March 2018(State/UT-wise)**  
(in km)

| 1            | Name of State/UT     | Total Length<br>(6+7) | Surfaced      |                |                | Unsurfaced     |
|--------------|----------------------|-----------------------|---------------|----------------|----------------|----------------|
|              |                      |                       | W.B.M         | BT/CC          | Total (4+5)    |                |
| 1            | 2                    | 3                     | 4             | 5              | 6              | 7              |
| 1            | Andhra Pradesh       | 20,221                | 349           | 13,882         | 14,232         | 5,989          |
| 2            | Arunachal Pradesh    | 8,938                 | 8             | 6,624          | 6,632          | 2,306          |
| 3            | Assam                | 25,544                | 0             | 17,725         | 17,725         | 7,819          |
| 4            | Bihar                | 61,345                | 622           | 47,835         | 48,457         | 12,889         |
| 5            | Chhattisgarh         | 40,542                | 2,293         | 28,750         | 31,044         | 9,499          |
| 6            | Goa                  | 207                   | 2             | 155            | 157            | 50             |
| 7            | Gujarat              | 18,482                | 79            | 12,553         | 12,632         | 5,850          |
| 8            | Haryana              | 7,027                 | 38            | 5,576          | 5,614          | 1,412          |
| 9            | Himachal Pradesh     | 19,893                | 953           | 13,664         | 14,616         | 5,276          |
| 10           | Jammu And Kashmir    | 15,230                | 730           | 8,633          | 9,363          | 5,867          |
| 11           | Jharkhand            | 28,638                | 574           | 19,418         | 19,992         | 8,646          |
| 12           | Karnataka            | 22,847                | 36            | 18,563         | 18,599         | 4,248          |
| 13           | Kerala               | 7,326                 | 556           | 3,179          | 3,734          | 3,592          |
| 14           | Madhya Pradesh       | 82,994                | 6,518         | 70,811         | 77,330         | 5,664          |
| 15           | Maharashtra          | 31,703                | 641           | 26,053         | 26,694         | 5,009          |
| 16           | Manipur              | 10,330                | 222           | 6,249          | 6,471          | 3,860          |
| 17           | Meghalaya            | 2,495                 | 25            | 1,695          | 1,720          | 774            |
| 18           | Mizoram              | 3,840                 | 0             | 2,859          | 2,859          | 981            |
| 19           | Nagaland             | 3,902                 | 93            | 3,488          | 3,580          | 322            |
| 20           | Odisha               | 62,720                | 5,270         | 46,973         | 52,243         | 10,477         |
| 21           | Punjab               | 8,926                 | 314           | 7,966          | 8,280          | 646            |
| 22           | Rajasthan            | 71,630                | 3,190         | 64,606         | 67,795         | 3,835          |
| 23           | Sikkim               | 5,385                 | 8             | 3,607          | 3,615          | 1,771          |
| 24           | Tamilnadu            | 20,407                | 2,542         | 15,398         | 17,940         | 2,467          |
| 25           | Telangana            | 12,454                | 206           | 10,126         | 10,332         | 2,121          |
| 26           | Tripura              | 6,660                 | 239           | 4,170          | 4,410          | 2,250          |
| 27           | Uttarakhand          | 12,654                | 91            | 9,368          | 9,459          | 3,195          |
| 28           | Uttar Pradesh        | 79,219                | 2,239         | 54,315         | 56,553         | 22,666         |
| 29           | West Bengal          | 39,295                | 6,561         | 26,335         | 32,895         | 6,399          |
| 30           | A & N Islands        | 93                    | 40            | 0              | 40             | 53             |
| 31           | Chandigarh           | 0                     | 0             | 0              | 0              | 0              |
| 32           | Dadra & Nagar Haveli | 182                   | 182           | 0              | 182            | 0              |
| 33           | Daman & Diu          | 0                     | 0             | 0              | 0              | 0              |
| 34           | Delhi                | 0                     | 0             | 0              | 0              | 0              |
| 35           | Lakshadweep          | 0                     | 0             | 0              | 0              | 0              |
| 36           | Puducherry           | 107                   | 19            | 69             | 88             | 19             |
| <b>Total</b> |                      | <b>731,234</b>        | <b>34,641</b> | <b>550,644</b> | <b>585,284</b> | <b>145,950</b> |

**Length of Rural Roads built by State PWD/RWD - By Type of Surface As on  
31.03.2018 (State/UT-wise)**

(in km)

| S.No.        | Name of State/UT  | Total Length<br>(6+7) | Surfaced      |                |                | Un-surfaced    |
|--------------|-------------------|-----------------------|---------------|----------------|----------------|----------------|
|              |                   |                       | WBM/ WMM      | BT/CC          | Total (4+5)    |                |
| 1            | 2                 | 3                     | 4             | 5              | 6              | 7              |
| 1            | Andhra Pradesh    | 0                     | 0             | 0              | 0              | 0              |
| 2            | Arunachal Pradesh | 6,624                 | 0             | 1,615          | 1,615          | 5,009          |
| 3            | Assam             | 40,367                | 0             | 22,859         | 22,859         | 17,508         |
| 4            | Bihar             | 74,857                | 7,599         | 33,723         | 41,322         | 33,534         |
| 5            | Chhattisgarh      | 13,182                | 1,350         | 9,978          | 11,328         | 1,854          |
| 6            | Goa               | 4,830                 | 0             | 4,826          | 4,826          | 4              |
| 7            | Gujarat*          | 23,114                | 499           | 21,622         | 22,121         | 993            |
| 8            | Haryana           | 0                     | 0             | 0              | 0              | 0              |
| 9            | Himachal Pradesh  | 21,902                | 1,048         | 13,247         | 14,295         | 7,607          |
| 10           | Jammu & Kashmir   | 47,878                | 6,348         | 28,383         | 34,731         | 13,147         |
| 11           | Jharkhand *       | 14,926                | 0             | 14,926         | 14,926         | 0              |
| 12           | Karnataka         | 0                     | 0             | 0              | 0              | 0              |
| 13           | Kerala            | 0                     | 0             | 0              | 0              | 0              |
| 14           | Madhya Pradesh*   | 26,482                | 4,980         | 18,762         | 23,742         | 2,740          |
| 15           | Maharashtra \$    | 146,135               | 47,151        | 53,830         | 100,981        | 45,154         |
| 16           | Manipur           | 0                     | 0             | 0              | 0              | 0              |
| 17           | Meghalaya         | 2,824                 | 160           | 1,557          | 1,718          | 1,107          |
| 18           | Mizoram           | 2,284                 | 0             | 846            | 846            | 1,438          |
| 19           | Nagaland          | 3,538                 | 431           | 0              | 431            | 3,107          |
| 20           | Odisha            | 0                     | 0             | 0              | 0              | 0              |
| 21           | Punjab *          | 30,761                | 0             | 30,761         | 30,761         | 0              |
| 22           | Rajasthan         | 112,672               | 142           | 110,201        | 110,344        | 2,329          |
| 23           | Sikkim            | 0                     | 0             | 0              | 0              | 0              |
| 24           | Tamil Nadu        | 0                     | 0             | 0              | 0              | 0              |
| 25           | Telangana         | 0                     | 0             | 0              | 0              | 0              |
| 26           | Tripura           | 10,665                | 0             | 9,915          | 9,915          | 750            |
| 27           | Uttarakhand       | 17,155                | 502           | 10,504         | 11,006         | 6,149          |
| 28           | Uttar Pradesh     | 168,714               | 0             | 168,694        | 168,694        | 20             |
| 29           | West Bengal       | 4,778                 | 26            | 4,588          | 4,614          | 164            |
| 30           | A & N Island      | 464                   | 2             | 446            | 448            | 16             |
| 31           | Chandigarh        | 0                     | 0             | 0              | 0              | 0              |
| 32           | D & N Haveli      | 671                   | 2             | 668            | 671            | 0              |
| 33           | Daman & Diu       | 24                    | 0             | 24             | 24             | 0              |
| 34           | Delhi             |                       |               |                |                |                |
| 35           | Lakshadweep       | 217                   | 0             | 217            | 217            | 0              |
| 36           | Puducherry        | 906                   | 1             | 905            | 906            | 0              |
| <b>Total</b> |                   | <b>775,970</b>        | <b>70,241</b> | <b>563,099</b> | <b>633,340</b> | <b>142,630</b> |

Note: This category of roads are built by State PWD/Rural Works Department of States/Uts.

\* Figures is as on 31/03/2017-Data not received.

**Length of Panchayati Raj Roads - By Type of Surface as on 31.03.2018 (State/UT-wise)**  
(in km)

| S. No.       | Name of State/UT   | Total Length (6+7) | Surfaced       |                |                  | Unsurfaced     |
|--------------|--------------------|--------------------|----------------|----------------|------------------|----------------|
|              |                    |                    | W.B.M.         | BT/CC          | Total (4+5)      |                |
| 1            | 2                  | 3                  | 4              | 5              | 6                | 7              |
| 1            | Andhra Pradesh     | 115,717            | 10,129         | 32,781         | 42,910           | 72,807         |
| 2            | Arunachal Pradesh* | 5,245              | 0              | 1,219          | 1,219            | 4,026          |
| 3            | Assam*             | 237,761            | 8,378          | 3,738          | 12,116           | 225,645        |
| 4            | Bihar *            | 122,598            | 7,240          | 42,200         | 49,440           | 73,158         |
| 5            | Chhatisgarh        | 583                | 0              | 583            | 583              | 0              |
| 6            | Goa                | 10,580             | 1,071          | 5,165          | 6,235            | 4,345          |
| 7            | Gujarat *          | 44,434             | 5,640          | 36,127         | 41,767           | 2,667          |
| 8            | Haryana            | 0                  | 0              | 0              | 0                | 0              |
| 9            | Himachal Pradesh * | 1,695              | 72             | 191            | 263              | 1,432          |
| 10           | Jammu & Kashmir*   | 2,740              | 1,693          | 0              | 1,693            | 1,047          |
| 11           | Jharkhand          | 0                  | 0              | 0              | 0                | 0              |
| 12           | Karnataka          | 193,081            | 24,053         | 58,059         | 82,112           | 110,969        |
| 13           | Kerala             | 174,009            | 17,246         | 93,345         | 110,591          | 63,418         |
| 14           | Madhya Pradesh *   | 122,855            | 0              | 87,815         | 87,815           | 35,040         |
| 15           | Maharashtra*       | 236,890            | 78,635         | 104,320        | 182,955          | 53,935         |
| 16           | Manipur            | 5,487              | 0              | 1,839          | 1,839            | 3,648          |
| 17           | Meghalaya          | 31,029             | 1,179          | 4,747          | 5,926            | 25,103         |
| 18           | Mizoram            | 0                  | 0              | 0              | 0                | 0              |
| 19           | Nagaland *         | 19,455             | 3,141          | 3,461          | 6,602            | 12,853         |
| 20           | Odisha*            | 171,070            | 171,070        | 0              | 171,070          | 0              |
| 21           | Punjab             | 62,580             | 0              | 62,580         | 62,580           | 0              |
| 22           | Rajasthan*         | 29,270             | 2,818          | 21,641         | 24,459           | 4,811          |
| 23           | Sikkim             | 4,795              | 1,536          | 1,387          | 2,923            | 1,871          |
| 24           | Tamil Nadu         | 149,446            | 10,081         | 102,157        | 112,238          | 37,208         |
| 25           | Telangana§         | 69,500             | 11,751         | 25,089         | 36,840           | 32,660         |
| 26           | Tripura            | 21,499             | 2,003          | 7,251          | 9,254            | 12,245         |
| 27           | Uttarakhand        | 0                  | 0              | 0              | 0                | 0              |
| 28           | Uttar Pradesh*     | 8,009              | 908            | 6,182          | 7,090            | 919            |
| 29           | West Bengal *      | 160,616            | 1,910          | 12,774         | 14,684           | 145,932        |
| 30           | A & N Islands      | 0                  | 0              | 0              | 0                | 0              |
| 31           | Chandigarh         | 0                  | 0              | 0              | 0                | 0              |
| 32           | D & N Haveli       | 0                  | 0              | 0              | 0                | 0              |
| 33           | Daman & Diu*       | 92                 | 1              | 91             | 92               | 0              |
| 34           | Delhi              | 0                  |                |                | 0                | 0              |
| 35           | Lakshadweep        | 0                  | 0              | 0              | 0                | 0              |
| 36           | Puducherry         | 1,342              | 239            | 894            | 1,132            | 210            |
| <b>Total</b> |                    | <b>2,002,379</b>   | <b>360,794</b> | <b>715,635</b> | <b>1,076,429</b> | <b>925,949</b> |

Note: Panchayati Raj Roads include Gram Panchayat, Panchayat Samiti & Zilla Parishad Roads

\* Figures is as on 31/03/2017-Data not received.

§ Figures is as on 31/03/2017-Data partially received.

**Total & Surfaced Length of Urban Roads as on 31.03.2018 (State/UT-wise)**  
(in km)

| <b>S.No.</b> | <b>Name of State/UT</b> | <b>Total</b>   | <b>Surfaced</b> |
|--------------|-------------------------|----------------|-----------------|
| <b>1</b>     | <b>2</b>                | <b>3</b>       | <b>4</b>        |
| 1            | Andhra Pradesh          | 24,504         | 19,846          |
| 2            | Arunachal Pradesh       | 56             | 54              |
| 3            | Assam                   | 5,603          | 3,345           |
| 4            | Bihar                   | 9,184          | 4,091           |
| 5            | Chhattisgarh            | 12,765         | 11,106          |
| 6            | Goa                     | 902            | 807             |
| 7            | Gujarat                 | 30,305         | 24,922          |
| 8            | Haryana                 | 14,914         | 10,836          |
| 9            | Himachal Pradesh        | 3,536          | 2,977           |
| 10           | Jammu And Kashmir       | 1,939          | 1,922           |
| 11           | Jharkhand               | 6,998          | 4,890           |
| 12           | Karnataka               | 41,403         | 28,324          |
| 13           | Kerala                  | 33,174         | 26,296          |
| 14           | Madhya Pradesh          | 30,691         | 24,810          |
| 15           | Maharashtra             | 23,543         | 18,900          |
| 16           | Manipur                 | 132            | 77              |
| 17           | Meghalaya               | 69             | 65              |
| 18           | Mizoram                 | 2,860          | 505             |
| 19           | Nagaland                | 36             | 34              |
| 20           | Odisha                  | 21,010         | 15,936          |
| 21           | Punjab                  | 18,822         | 16,440          |
| 22           | Rajasthan               | 32,448         | 27,617          |
| 23           | Sikkim                  | 69             | 67              |
| 24           | Tamilnadu               | 25,050         | 23,656          |
| 25           | Telangana               | 10,374         | 9,629           |
| 26           | Tripura                 | 581            | 424             |
| 27           | Uttarakhand             | 5,514          | 3,926           |
| 28           | Uttar Pradesh           | 63,803         | 48,830          |
| 29           | West Bengal             | 94,948         | 66,672          |
| 30           | A & N Islands           | 187            | 186             |
| 31           | Chandigarh              | 2,432          | 2,432           |
| 32           | Dadra & Nagar Haveli    | 83             | 83              |
| 33           | Daman & Diu             | 146            | 146             |
| 34           | Delhi                   | 15,012         | 15,012          |
| 35           | Lakshadweep             | 8              | 8               |
| 36           | Puducherry              | 1,040          | 988             |
| <b>Total</b> |                         | <b>534,142</b> | <b>415,859</b>  |

*Notes: The Urban Roads comprise of Municipal Roads; (coming under purview of Municipal Corporation under the Urban Development Department of States/Uts), Military Engineering Service Roads; Major & Minor Port roads and roads in Railways Zones.*

**Length of Municipal Roads - By Type of Surface as on 31.03.2018 (State/UT-wise)**  
(km)

| S. No.       | Name of State/UT  | Total Length<br>(6+7) | Surfaced      |                |                | Unsurfaced     |
|--------------|-------------------|-----------------------|---------------|----------------|----------------|----------------|
|              |                   |                       | WBM/WMM       | BT/CC          | Total<br>(4+5) | Total          |
| 1            | 2                 | 3                     | 4             | 5              | 6              | 7              |
| 1            | Andhra Pradesh    | 23,297                | 2,202         | 16,458         | 18,660         | 4,636          |
| 2            | Arunachal Pradesh | 0                     | 0             | 0              | 0              | 0              |
| 3            | Assam*            | 4,729                 | 620           | 1,890          | 2,510          | 2,219          |
| 4            | Bihar*            | 8,537                 | 1,112         | 2,375          | 3,487          | 5,050          |
| 5            | Chhattisgarh      | 12,355                | 1,123         | 9,600          | 10,722         | 1,633          |
| 6            | Goa               | 682                   | 79            | 508            | 587            | 95             |
| 7            | Gujarat           | 29,264                | 2,933         | 20,960         | 23,893         | 5,371          |
| 8            | Haryana*          | 13,747                | 594           | 9,114          | 9,708          | 4,039          |
| 9            | Himachal Pradesh  | 1,846                 | 115           | 1,208          | 1,323          | 523            |
| 10           | Jammu & Kashmir*  | 441                   | 2             | 439            | 441            | 0              |
| 11           | Jharkhand         | 6,432                 | 0             | 4,374          | 4,374          | 2,058          |
| 12           | Karnataka         | 40,482                | 5,419         | 22,017         | 27,436         | 13,046         |
| 13           | Kerala*           | 32,745                | 3,129         | 22,745         | 25,874         | 6,871          |
| 14           | Madhya Pradesh    | 29,368                | 4,623         | 18,901         | 23,524         | 5,844          |
| 15           | Maharashtra*      | 20,958                | 4,095         | 12,382         | 16,477         | 4,481          |
| 16           | Manipur*          | 122                   | 22            | 46             | 68             | 54             |
| 17           | Meghalaya*        | 30                    |               | 26             | 26             | 4              |
| 18           | Mizoram           | 2,852                 | 0             | 500            | 500            | 2,352          |
| 19           | Nagaland          | 0                     | 0             | 0              | 0              | 0              |
| 20           | Odisha            | 20,245                | 3,636         | 11,575         | 15,211         | 5,034          |
| 21           | Punjab            | 16,320                | 519           | 13,458         | 13,978         | 2,343          |
| 22           | Rajasthan         | 29,270                | 2,818         | 21,641         | 24,459         | 4,811          |
| 23           | Sikkim            | 49                    | 0             | 47             | 47             | 2              |
| 24           | Tamil Nadu        | 23,355                | 607           | 21,487         | 22,094         | 1,261          |
| 25           | Telangana         | 9,103                 | 0             | 8,360          | 8,360          | 743            |
| 26           | Tripura*          | 518                   | 115           | 257            | 372            | 146            |
| 27           | Uttarakhand       | 5,082                 | 374           | 3,130          | 3,504          | 1,578          |
| 28           | Uttar Pradesh*    | 59,960                | 0             | 45,220         | 45,220         | 14,740         |
| 29           | West Bengal*      | 92,963                | 4,831         | 59,928         | 64,759         | 28,204         |
| 30           | A & N Islands     | 72                    | 0             | 72             | 72             | 0              |
| 31           | Chandigarh        | 2,334                 | 0             | 2,334          | 2,334          | 0              |
| 32           | D & N Haveli      | 83                    | 0             | 83             | 83             | 0              |
| 33           | Daman & Diu*      | 46                    |               | 46             | 46             | 0              |
| 34           | Delhi*            | 14,336                | 0             | 14,336         | 14,336         | 0              |
| 35           | Lakshadweep       | 0                     | 0             | 0              | 0              | 0              |
| 36           | Puducherry        | 1,021                 | 150           | 824            | 974            | 47             |
| <b>Total</b> |                   | <b>502,647</b>        | <b>39,118</b> | <b>346,343</b> | <b>385,460</b> | <b>117,187</b> |

Source: State & UT Urban Departments.

\* Figure is as on 31/03/2017- Data not received.

§ Figures is as on 31/03/2017-Data partially received.

**Length of Military Engineering Service Roads - By Type of Surface as on 31.03.2018 (State/UT-wise)**  
(in km)

| S. No.       | Name of State/UT  | Total Length (6+7) | Surfaced   |               |               | Unsurfaced |
|--------------|-------------------|--------------------|------------|---------------|---------------|------------|
|              |                   |                    | W.B.M.     | B.T./C.C      | Total (4+5)   |            |
| 1            | 2                 | 3                  | 4          | 5             | 6             | 7          |
| 1            | Andhra Pradesh    | 385                | 0          | 385           | 385           | 0          |
| 2            | Arunachal Pradesh | 52                 | 0          | 52            | 52            | 0          |
| 3            | Assam             | 259                | 17         | 241           | 259           | 0          |
| 4            | Bihar             | 27                 | 0          | 27            | 27            | 0          |
| 5            | Chhattisgarh      | 2                  | 0          | 2             | 2             | 0          |
| 6            | Goa               | 110                | 0          | 110           | 110           | 0          |
| 7            | Gujarat           | 787                | 0          | 787           | 787           | 0          |
| 8            | Haryana           | 817                | 4          | 797           | 802           | 15         |
| 9            | Himachal Pradesh  | 233                | 4          | 229           | 233           | 0          |
| 10           | Jammu & Kashmir   | 1,353              | 72         | 1,277         | 1,349         | 4          |
| 11           | Jharkhand         | 1                  | 0          | 1             | 1             | 0          |
| 12           | Karnataka         | 544                | 17         | 519           | 536           | 8          |
| 13           | Kerala            | 182                | 0          | 182           | 182           | 0          |
| 14           | Madhya Pradesh    | 759                | 0          | 759           | 759           | 0          |
| 15           | Maharashtra       | 1,484              | 0          | 1,483         | 1,483         | 1          |
| 16           | Manipur           | 7                  | 7          | 0             | 7             | 0          |
| 17           | Meghalaya         | 37                 | 22         | 15            | 37            | 0          |
| 18           | Mizoram           | 0                  | 0          | 0             | 0             | 0          |
| 19           | Nagaland          | 23                 | 23         | 0             | 23            | 0          |
| 20           | Odisha            | 56                 | 0          | 56            | 56            | 0          |
| 21           | Punjab            | 2,176              | 205        | 1,964         | 2,169         | 7          |
| 22           | Rajasthan         | 2,538              | 0          | 2,538         | 2,538         | 0          |
| 23           | Sikkim            | 20                 | 0          | 20            | 20            | 0          |
| 24           | Tamil Nadu        | 486                | 2          | 484           | 486           | 0          |
| 25           | Telangana         | 551                | 0          | 551           | 551           | 0          |
| 26           | Tripura           | 0                  | 0          | 0             | 0             | 0          |
| 27           | Uttarakhand       | 398                | 14         | 380           | 395           | 3          |
| 28           | Uttar Pradesh     | 1,501              | 0          | 1,501         | 1,501         | 0          |
| 29           | West Bengal       | 640                | 20         | 621           | 640           | 0          |
| 30           | A & N Islands     | 104                | 0          | 104           | 104           | 0          |
| 31           | Chandigarh        | 90                 | 0          | 90            | 90            | 0          |
| 32           | D & N Haveli      | 0                  | 0          | 0             | 0             | 0          |
| 33           | Daman & Diu       | 92                 | 0          | 92            | 92            | 0          |
| 34           | Delhi             | 451                | 0          | 451           | 451           | 0          |
| 35           | Lakshadweep       | 8                  | 0          | 8             | 8             | 0          |
| 36           | Puducherry        | 0                  | 0          | 0             | 0             | 0          |
| <b>Total</b> |                   | <b>16,170</b>      | <b>407</b> | <b>15,725</b> | <b>16,132</b> | <b>38</b>  |

Source : Directorate of Works, Engineering in Chief's Branch, Integrated HQ of MoD (Army).

**Length of Roads in Major Ports - By Type of Surface as on 31.03.2018 (State/UT-wise)**  
(in km)

| S. No.       | States/UTs     | Major Port Trusts                 | Total Length (6+7) |           |            | Total (4+5) | Unsurfaced |
|--------------|----------------|-----------------------------------|--------------------|-----------|------------|-------------|------------|
|              |                |                                   |                    | W.B.M.    | B.T./C.C   |             |            |
| 1            | 2              | 3                                 | 4                  | 5         | 6          | 7           | 8          |
| 1            | Andhra Pradesh | Visakhapatnam                     | 73                 | 0         | 73         | 73          | 0          |
| 2            | Goa            | Mormugoa                          | 25                 | 0         | 25         | 25          | 0          |
| 3            | Gujarat        | Kandla *                          | 97                 | 0         | 97         | 97          | 0          |
| 4            | Karnataka      | New Mangalore                     | 47                 | 3         | 44         | 47          | 0          |
| 5            | Kerala         | Cochin                            | 37                 | 4         | 33         | 37          | 0          |
| 6            | Maharashtra    | Total                             | 107                | 0         | 107        | 107         | 0          |
|              |                | Jawaharlal Nehru Port Trust*      | 40                 | 0         | 40         | 40          | 0          |
|              |                | Mumbai Port Trust                 | 67                 | 0         | 67         | 67          | 0          |
| 7            | Odisha         | Paradeep                          | 73                 | 0         | 73         | 73          | 0          |
| 8            | Tamil Nadu     | Total                             | 124                | 0         | 123        | 124         | 0          |
|              |                | Chennai Port                      | 31                 | 0         | 31         | 31          | 0          |
|              |                | Kamrajar Port (Ennore Port Trust) | 14                 | 0         | 14         | 14          | 0          |
|              |                | Tuticorin                         | 78                 | 0         | 78         | 78          | 0          |
| 9            | West Bengal    | Total                             | 154                | 47        | 106        | 154         | 0          |
|              |                | Kolkata Port                      | 50                 | 47        | 3          | 50          | 0          |
|              |                | Haldia Dock                       | 104                | 0         | 104        | 104         | 0          |
| <b>Total</b> |                |                                   | <b>737</b>         | <b>55</b> | <b>681</b> | <b>736</b>  | <b>0</b>   |

Source: Individual Port Trusts

\* Figures is as on 31/03/2017-Data not received.



**Length of Roads in Minor Ports - By Type of surface as on 31/03/2018 (State/UT-wise)**  
(in km)

| S. No. | Name of State/UT | Name of the Ports        | Total Length (6+7) |      |     | Total (4+5) | Unsurfaced |
|--------|------------------|--------------------------|--------------------|------|-----|-------------|------------|
|        |                  |                          | 4                  | 5    | 6   |             |            |
| 1      | 2                | 3                        | 4                  | 5    | 6   | 7           | 8          |
| 1      | Andhra Pradesh   | Bhavanapadu              | 17                 | 0    | 17  | 17          | 0          |
|        |                  | Kakinada                 |                    |      |     |             |            |
|        |                  | Machilipatnam            |                    |      |     |             |            |
|        |                  | Nizampatnam              |                    |      |     |             |            |
| 2      | Goa*             | Tiracol                  | 80                 | 0    | 80  | 80          | 0          |
|        |                  | Chapora                  |                    |      |     |             |            |
|        |                  | Panajim                  |                    |      |     |             |            |
|        |                  | Betul                    |                    |      |     |             |            |
|        |                  | Talpona                  |                    |      |     |             |            |
| 3      | Gujarat          | Jakhau                   | 144                | 5.24 | 131 | 136         | 8          |
|        |                  | Mandavi                  |                    |      |     |             |            |
|        |                  | Mundra                   |                    |      |     |             |            |
|        |                  | Navalakhi                |                    |      |     |             |            |
|        |                  | Okha                     |                    |      |     |             |            |
|        |                  | Bedi                     |                    |      |     |             |            |
|        |                  | Rozi                     |                    |      |     |             |            |
|        |                  | Porbandar                |                    |      |     |             |            |
|        |                  | Veraval                  |                    |      |     |             |            |
|        |                  | Jafrabad                 |                    |      |     |             |            |
|        |                  | Victor                   |                    |      |     |             |            |
|        |                  | Alang Ship Breaking Yard |                    |      |     |             |            |
|        |                  | Bhavnagar                |                    |      |     |             |            |
|        |                  | Dahej                    |                    |      |     |             |            |
|        |                  | Surat                    |                    |      |     |             |            |
|        |                  | Madalla                  |                    |      |     |             |            |
|        |                  | Dumas                    |                    |      |     |             |            |
|        |                  | Dholai                   |                    |      |     |             |            |
|        |                  | Onjal                    |                    |      |     |             |            |
|        |                  | Kosamba                  |                    |      |     |             |            |
| 4      | Kerala           | Vizhinjam                | 11                 | 1    | 10  | 11          | 0          |
|        |                  | Valiyathura              |                    |      |     |             |            |
|        |                  | Kollam                   |                    |      |     |             |            |
|        |                  | Kochupilamoodu           |                    |      |     |             |            |
|        |                  | Neendakara               |                    |      |     |             |            |
|        |                  | Sakthikulangara          |                    |      |     |             |            |
|        |                  | Pullikkada               |                    |      |     |             |            |
|        |                  | Alappuzha                |                    |      |     |             |            |
|        |                  | Kodungallur              |                    |      |     |             |            |
|        |                  | Kayamkulam               |                    |      |     |             |            |
|        |                  | Ponnani                  |                    |      |     |             |            |
|        |                  | Thalassery               |                    |      |     |             |            |
|        |                  | Azhikkal                 |                    |      |     |             |            |
|        |                  | Kasaragod                |                    |      |     |             |            |
|        |                  | Beypore                  |                    |      |     |             |            |
|        |                  | Kannur                   |                    |      |     |             |            |

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**Length of Roads in Minor Ports - By Type of surface as on 31/03/2018 (State/UT-wise)**  
(in km)

| S. No.       | Name of State/UT | Name of the Ports | Total Length (6+7) |           |             | Unsurfaced |           |
|--------------|------------------|-------------------|--------------------|-----------|-------------|------------|-----------|
|              |                  |                   | W.B.M.             | B.T./C.C  | Total (4+5) |            |           |
| 1            | 2                | 3                 | 4                  | 5         | 6           | 7          | 8         |
| 5            | Karnataka        | Karwar            | 15                 | 0         | 15          | 15         | 0         |
|              |                  | Old Mangalore     |                    |           |             |            |           |
|              |                  | Belekeri          |                    |           |             |            |           |
|              |                  | Honnavar          |                    |           |             |            |           |
|              |                  | Bhatkal           |                    |           |             |            |           |
|              |                  | Hangarakatta      |                    |           |             |            |           |
|              |                  | Malpe             |                    |           |             |            |           |
|              |                  | Tadadi            |                    |           |             |            |           |
|              |                  | Padubidri         |                    |           |             |            |           |
|              |                  | Kundapura         |                    |           |             |            |           |
| 6            | Odisha*          |                   |                    |           |             |            |           |
|              |                  | Gopalpur          | 46                 | 13        | 18          | 31         | 15        |
|              |                  | Dhamara           |                    |           |             |            |           |
| 7            | Maharashtra      |                   | 30                 | 1         | 24          | 25         | 5         |
| 8            | A&N Islands      | Port Blair        | 11                 | 3         | 7           | 10         | 1         |
|              |                  | Campbell Bay      |                    |           |             |            |           |
|              |                  | Hut Bay           |                    |           |             |            |           |
|              |                  | Rangat Bay        |                    |           |             |            |           |
|              |                  | Car nicobar       |                    |           |             |            |           |
| 9            | Daman & Diu      | Daman             | 8                  | 0         | 8           | 8          | 0         |
|              |                  | Diu               |                    |           |             |            |           |
| 10           | Puducherry       | Puducherry        | 17                 | 1         | 13          | 13         | 4         |
|              |                  | Karaikal          |                    |           |             |            |           |
| 11           | Tamil Nadu *     | Cuddalore         | 0                  | 0         | 0           | 0          | 0         |
|              |                  | Nagapattinam      |                    |           |             |            |           |
|              |                  | Rameswaram        |                    |           |             |            |           |
|              |                  | Colachel          |                    |           |             |            |           |
| <b>Total</b> |                  |                   | <b>380</b>         | <b>24</b> | <b>323</b>  | <b>347</b> | <b>34</b> |

Source: State Maritime Boards incharge of Minor Ports

The roads under minor ports in Tamil Nadu are not under the purview of the state maritime bords but are under National Highways and State Highways.

\* Figures is as on 31/03/2016- Data not received.

**Length of Roads in Railway Zones - By Type of Surface in India as on 31.03.2018 (State/UT-wise)  
(in km)**

| S. No.       | Name of State/UT  | Total Length (6+7) | Surfaced     |               |               | Unsurfaced   |
|--------------|-------------------|--------------------|--------------|---------------|---------------|--------------|
|              |                   |                    | W.B.M.       | B.T./C.C      | Total (4+5)   |              |
| 1            | 2                 | 3                  | 4            | 5             | 6             | 7            |
| 1            | Andhra Pradesh    | 732                | 46           | 664           | 711           | 21           |
| 2            | Arunachal Pradesh | 4                  | 0            | 2             | 2             | 2            |
| 3            | Assam             | 615                | 36           | 540           | 576           | 39           |
| 4            | Bihar             | 620                | 23           | 554           | 577           | 43           |
| 5            | Chhattisgarh      | 408                | 38           | 343           | 381           | 27           |
| 6            | Goa               | 5                  | 0            | 5             | 5             | 0            |
| 7            | Gujarat           | 13                 | 1            | 8             | 9             | 3            |
| 8            | Haryana           | 350                | 12           | 315           | 327           | 24           |
| 9            | Himachal Pradesh  | 1,457              | 8            | 1,413         | 1,421         | 36           |
| 10           | Jammu & Kashmir   | 145                | 0            | 132           | 132           | 12           |
| 11           | Jharkhand         | 565                | 78           | 436           | 514           | 50           |
| 12           | Karnataka         | 315                | 50           | 240           | 290           | 26           |
| 13           | Kerala            | 199                | 22           | 170           | 192           | 7            |
| 14           | Madhya Pradesh    | 565                | 82           | 445           | 527           | 37           |
| 15           | Maharashtra       | 963                | 204          | 604           | 808           | 155          |
| 16           | Manipur           | 4                  | 1            | 1             | 2             | 1            |
| 17           | Meghalaya         | 2                  | 0            | 2             | 2             | 0            |
| 18           | Mizoram           | 8                  | 3            | 3             | 5             | 3            |
| 19           | Nagaland          | 12                 | 1            | 9             | 10            | 2            |
| 20           | Odisha            | 591                | 44           | 523           | 566           | 25           |
| 21           | Punjab            | 325                | 22           | 271           | 293           | 32           |
| 22           | Rajasthan         | 640                | 72           | 548           | 620           | 20           |
| 23           | Sikkim            | 0                  |              |               | 0             |              |
| 24           | Tamil Nadu        | 1,085              | 148          | 805           | 952           | 133          |
| 25           | Telangana         | 720                | 52           | 666           | 719           | 2            |
| 26           | Tripura           | 63                 | 22           | 30            | 52            | 12           |
| 27           | Uttarakhand       | 34                 | 27           | 1             | 28            | 6            |
| 28           | Uttar Pradesh     | 2,341              | 339          | 1,770         | 2,109         | 233          |
| 29           | West Bengal       | 1,191              | 176          | 943           | 1,119         | 72           |
| 30           | A & N Islands     | 0                  |              |               | 0             |              |
| 31           | UT Chandigarh     | 9                  | 0            | 9             | 9             | 0            |
| 32           | D & N Haveli      | 0                  |              |               | 0             |              |
| 33           | Daman & Diu       | 0                  |              |               | 0             |              |
| 34           | Delhi             | 225                | 63           | 162           | 225           | 0            |
| 35           | Lakshadweep       | 0                  |              |               | 0             |              |
| 36           | Puducherry        | 1                  | 0            | 1             | 1             | 0            |
| <b>Total</b> |                   | <b>14,207</b>      | <b>1,569</b> | <b>11,615</b> | <b>13,184</b> | <b>1,023</b> |

Source : Data based on Railway Zones which had reported.

**Total & Surfaced Length of Project Roads on 31.03.2018 (State/UT-wise)**  
(in km)

| S.No.        | Name of State/UT     | Total          | Surfaced       |
|--------------|----------------------|----------------|----------------|
| 1            | 2                    | 3              | 4              |
| 1            | Andhra Pradesh       | 5,021          | 2,002          |
| 2            | Arunachal Pradesh    | 4,924          | 3,260          |
| 3            | Assam                | 21,803         | 1,550          |
| 4            | Bihar                | 2,559          | 508            |
| 5            | Chhattisgarh         | 15,772         | 7,270          |
| 6            | Goa                  | 323            | 155            |
| 7            | Gujarat              | 31,347         | 24,725         |
| 8            | Haryana              | 1,594          | 268            |
| 9            | Himachal Pradesh     | 7,792          | 3,419          |
| 10           | Jammu And Kashmir    | 18,557         | 7,247          |
| 11           | Jharkhand            | 14,106         | 6,797          |
| 12           | Karnataka            | 20,435         | 8,700          |
| 13           | Kerala               | 8,983          | 4,009          |
| 14           | Madhya Pradesh       | 35,818         | 10,331         |
| 15           | Maharashtra          | 21,993         | 9,349          |
| 16           | Manipur              | 1,298          | 1,202          |
| 17           | Meghalaya            | 460            | 221            |
| 18           | Mizoram              | 187            | 45             |
| 19           | Nagaland             | 1,035          | 796            |
| 20           | Odisha               | 25,731         | 10,948         |
| 21           | Punjab               | 10,195         | 2,397          |
| 22           | Rajasthan            | 19,699         | 9,546          |
| 23           | Sikkim               | 666            | 630            |
| 24           | Tamilnadu            | 10,038         | 6,138          |
| 25           | Telangana            | 4,426          | 2,408          |
| 26           | Tripura              | 1,439          | 20             |
| 27           | Uttarakhand          | 5,284          | 1,655          |
| 28           | Uttar Pradesh        | 42,088         | 14,460         |
| 29           | West Bengal          | 12,703         | 4,440          |
| 30           | A & N Islands        | 282            | 206            |
| 31           | Chandigarh           | 0              | 0              |
| 32           | Dadra & Nagar Haveli | 0              | 0              |
| 33           | Daman & Diu          | 1              | 1              |
| 34           | Delhi                | 52             | 52             |
| 35           | Lakshadweep          | 0              | 0              |
| 36           | Puducherry           | 41             | 33             |
| <b>Total</b> |                      | <b>346,651</b> | <b>144,787</b> |

*Notes: The Project Roads comprise of Forest Roads, roads of Border Roads Organisation, Coal Departments, Electricity, Irrigation, Sugarcane Department and of Steel Authority of India Limited and National Mineral Development Corporation.*

**Length of Roads under Forest Departments - By Type of Surface in India as on 31.03.2018  
(State/UT-wise)**

(in km)

| S.No         | Name of State/UT   | Total Length<br>(6+7) | Surfaced      |               |               | Unsurfaced     |
|--------------|--------------------|-----------------------|---------------|---------------|---------------|----------------|
|              |                    |                       | W.B.M.        | B.T./C.C      | Total (4+5)   |                |
| 1            | 2                  | 3                     | 4             | 5             | 6             | 7              |
| 1            | Andhra Pradesh     | 4,047                 | 1,133         | 64            | 1,197         | 2,849          |
| 2            | Arunachal Pradesh* | 1,213                 | 232           | 45            | 276           | 936            |
| 3            | Assam              | 19,970                | 439           | 734           | 1,173         | 18,797         |
| 4            | Bihar*             | 2,030                 | 0             | 0             | 0             | 2,030          |
| 5            | Chhattisgarh       | 10,868                | 5,055         | 0             | 5,055         | 5,813          |
| 6            | Goa                | 164                   | 0             | 49            | 49            | 115            |
| 7            | Gujarat            | 22,112                | 0             | 22,112        | 22,112        | 0              |
| 8            | Haryana            | 26                    | 23            | 3             | 26            | 0              |
| 9            | Himachal Pradesh*  | 2,254                 | 0             | 26            | 26            | 2,228          |
| 10           | Jammu & Kashmir    | 11,540                | 1,308         | 35            | 1,342         | 10,197         |
| 11           | Jharkhand*         | 9,442                 | 1,729         | 2,470         | 4,199         | 5,243          |
| 12           | Karnataka          | 8,999                 | 503           | 391           | 894           | 8,105          |
| 13           | Kerala             | 4,792                 | 896           | 480           | 1,377         | 3,415          |
| 14           | Madhya Pradesh *   | 29,798                | 2,208         | 4,946         | 7,154         | 22,644         |
| 15           | Maharashtra        | 13,575                | 4,669         | 913           | 5,582         | 7,993          |
| 16           | Manipur            | 0                     | 0             | 0             | 0             | 0              |
| 17           | Meghalaya          | 148                   | 72            | 18            | 90            | 58             |
| 18           | Mizoram            | 53                    | 11            | 10            | 21            | 32             |
| 19           | Nagaland           | 288                   | 0             | 102           | 102           | 187            |
| 20           | Odisha             | 7,475                 | 1,965         | 611           | 2,576         | 4,899          |
| 21           | Punjab             | 707                   | 0             | 0             | 0             | 707            |
| 22           | Rajasthan          | 5,343                 | 512           | 1,600         | 2,113         | 3,231          |
| 23           | Sikkim             | 6                     | 0             | 4             | 4             | 3              |
| 24           | Tamil Nadu *       | 3,351                 | 833           | 799           | 1,632         | 1,719          |
| 25           | Telangana          | 1,660                 | 497           | 90            | 587           | 1,073          |
| 26           | Tripura *          | 1,345                 | 0             | 11            | 11            | 1,334          |
| 27           | Uttarakhand        | 3,731                 | 0             | 468           | 468           | 3,264          |
| 28           | Uttar Pradesh      | 8,502                 | 1,048         | 788           | 1,836         | 6,666          |
| 29           | West Bengal        | 5,463                 | 505           | 429           | 934           | 4,529          |
| 30           | A & N Islands*     | 257                   | 112           | 87            | 199           | 58             |
| 31           | UT Chandigarh      | 0                     | 0             | 0             | 0             | 0              |
| 32           | D & N Haveli       | 0                     | 0             | 0             | 0             | 0              |
| 33           | Daman & Diu*       | 1                     | 1             | 0             | 1             | 0              |
| 34           | Delhi              | 0                     | 0             | 0             | 0             | 0              |
| 35           | Lakshadweep        | 0                     |               |               | 0             |                |
| 36           | Puducherry         | 0                     | 0             | 0             | 0             | 0              |
| <b>Total</b> |                    | <b>179,160</b>        | <b>23,751</b> | <b>37,285</b> | <b>61,037</b> | <b>118,123</b> |

Source : State Departments of Forests

Blank cells refer to States and UTs who have not furnished data or have insignificant or nil forest roads

\* Figures is as on 31/03/2017-Data not received.

**Length of Roads under Border Roads Organisation - By Type of Surface in India  
As on 31.03.2018 (State/UT-wise)**

(in km)

| S.No         | Name of State/UT     | Total Length<br>(6+7) | Surfaced   |               |               | Unsurfaced    |
|--------------|----------------------|-----------------------|------------|---------------|---------------|---------------|
|              |                      |                       | W.B.M.     | B.T./C.C      | Total (4+5)   |               |
| 1            | 2                    | 3                     | 4          | 5             | 6             | 7             |
| 1            | Andhra Pradesh       | 0                     |            |               | 0             |               |
| 2            | Arunachal Pradesh    | 3,711                 | 192        | 2,791         | 2,984         | 727           |
| 3            | Assam                | 187                   | 0          | 187           | 187           | 0             |
| 4            | Bihar                | 0                     |            |               | 0             |               |
| 5            | Chhattisgarh         | 0                     |            |               | 0             |               |
| 6            | Goa                  | 0                     |            |               | 0             |               |
| 7            | Gujarat              | 4                     | 0          | 0             | 0             | 4             |
| 8            | Haryana              | 0                     |            |               | 0             |               |
| 9            | Himachal Pradesh     | 987                   | 5          | 681           | 686           | 301           |
| 10           | Jammu & Kashmir      | 6,596                 | 514        | 5,257         | 5,771         | 824           |
| 11           | Jharkhand            | 0                     |            |               | 0             |               |
| 12           | Karnataka            | 0                     |            |               | 0             |               |
| 13           | Kerala               | 0                     |            |               | 0             |               |
| 14           | Madhya Pradesh       | 0                     |            |               | 0             |               |
| 15           | Maharashtra          | 0                     |            |               | 0             |               |
| 16           | Manipur              | 1,298                 | 20         | 1,182         | 1,202         | 96            |
| 17           | Meghalaya            | 0                     |            |               | 0             |               |
| 18           | Mizoram              | 669                   | 15         |               |               | 669           |
| 19           | Nagaland             | 747                   | 54         | 639           | 694           | 53            |
| 20           | Odisha               | 0                     |            |               | 0             |               |
| 21           | Punjab               | 797                   | 0          | 441           | 441           | 355           |
| 22           | Rajasthan            | 13,128                | 5          | 6,519         | 6,525         | 6,603         |
| 23           | Sikkim               | 660                   | 29         | 598           | 627           | 34            |
| 24           | Tamil Nadu           | 0                     |            |               | 0             |               |
| 25           | Telangana            | 0                     |            |               | 0             |               |
| 26           | Tripura*             | 12                    | 0          | 0             | 0             | 12            |
| 27           | Uttarakhand          | 978                   | 30         | 661           | 691           | 287           |
| 28           | Uttar Pradesh        | 0                     |            |               | 0             |               |
| 29           | West Bengal          | 467                   | 0          | 122           | 122           | 345           |
| 30           | A & N Islands        | 25                    | 2          | 5             | 7             | 18            |
| 31           | UT Chandigarh        | 0                     |            |               | 0             |               |
| 32           | Dadra & Nagar Haveli | 0                     |            |               | 0             |               |
| 33           | Daman & Diu          | 0                     |            |               | 0             |               |
| 34           | Delhi                | 0                     |            |               | 0             |               |
| 35           | Lakshadweep          | 0                     |            |               | 0             |               |
| 36           | Puducherry           | 0                     |            |               | 0             |               |
| <b>Total</b> |                      | <b>30,265</b>         | <b>867</b> | <b>19,084</b> | <b>19,936</b> | <b>10,329</b> |

Source : DG Border Roads

Blank Cells refer to States and UTs who have nil BRO roads

**Length of Roads under Forest Departments - By Type of Surface in India as on 31.03.2018 (State/UT-wise)**  
(in km)

| S. No. | Name of States/UTs                                   | Total Length (6+7) | Surfaced   |              |              | Unsurfaced |
|--------|--|--------------------|------------|--------------|--------------|------------|
|        |  |                    | W.B.M.     | B.T./C.C     | Total (4+5)  |            |
|        | (Names of Coal Fields)                               |                    |            |              |              |            |
| 1      | 2  | 3                  | 4          | 5            | 6            | 7          |
| 1      | Andhra Pradesh                                       | 0                  |            |              | 0            |            |
| 2      | Arunachal Pradesh                                    | 0                  |            |              | 0            |            |
| 3      | Assam  | 0                  |            |              | 0            |            |
|        | i. North Eastern Coalfields, Margherita- Tinsukia*   | 51                 | 2          | 42           | 44           | 7          |
| 4      | Bihar  | 0                  |            |              | 0            |            |
| 5      | Chhattisgarh   | 0                  |            |              | 0            |            |
|        | i. South Eastern Coal Fields, Bilaspur               | 793                | 78         | 681          | 759          | 34         |
| 6      | Goa  | 0                  |            |              | 0            |            |
| 7      | Gujarat  | 0                  |            |              | 0            |            |
| 8      | Haryana  | 0                  |            |              | 0            |            |
| 9      | Himachal Pradesh                                     | 0                  |            |              | 0            |            |
| 10     | Jammu & Kashmir                                      | 0                  |            |              | 0            |            |
| 11     | Jharkhand  | 0                  |            |              | 0            |            |
|        | i. Bharat Coking Coal Ltd., Dhanbad*                 | 545                | 48         | 415          | 463          | 82         |
|        | ii. Eastern Coal Fields Ltd.                         | 104                | 29         | 57           | 85           | 19         |
|        | iii. Central Coal Fields, Ranchi                     | 678                | 41         | 627          | 668          | 10         |
| 12     | Karnataka  | 0                  |            |              | 0            |            |
| 13     | Kerala   | 0                  |            |              | 0            |            |
| 14     | Madhya Pradesh                                       | 0                  |            |              | 0            |            |
|        | i. Western Coal Fields                               | 211                | 13         | 198          | 211          | 0          |
|        | ii. Northern Coal fields Ltd. Singarauli*            | 302                | 26         | 212          | 238          | 64         |
| 15     | Maharashtra  | 0                  | 0          | 0            | 0            | 0          |
|        | i. Western Coal Fields Ltd, Nagpur                   | 560                | 184        | 334          | 518          | 41         |
| 16     | Manipur  | 0                  |            |              | 0            |            |
| 17     | Meghalaya  | 0                  |            |              | 0            |            |
| 18     | Mizoram  | 0                  |            |              | 0            |            |
| 19     | Nagaland   | 0                  |            |              | 0            |            |
| 20     | Odisha   | 0                  |            |              | 0            |            |
|        | i. Mahanadi Coal Fields. Sambalpur*                  | 314                | 96         | 200          | 296          | 18         |
| 21     | Punjab   | 0                  |            |              | 0            |            |
| 22     | Rajasthan  | 0                  |            |              | 0            |            |
| 23     | Sikkim   | 0                  |            |              | 0            |            |
| 24     | Tamil Nadu   | 0                  |            |              | 0            |            |
| 25     | Telangana  | 0                  |            |              | 0            |            |
|        | i. Singareni Coal field, Kothagudem, Bhadradi Dist.* | 906                | 70         | 833          | 903          | 3          |
| 26     | Tripura  | 0                  |            |              | 0            |            |
| 27     | Uttarakhand  | 0                  |            |              | 0            |            |
| 28     | Uttar Pradesh  | 0                  |            |              | 0            |            |
| 29     | West Bengal  | 0                  |            |              | 0            |            |
|        | i. Eastern Coalfields Limited, Burdwan               | 301                | 42         | 232          | 274          | 27         |
| 30     | Andaman & Nicobar Islands                            | 0                  |            |              | 0            |            |
| 31     | UT Chandigarh  | 0                  |            |              | 0            |            |
| 32     | Dadra & Nagar Havelli                                | 0                  |            |              | 0            |            |
| 33     | Daman & Diu  | 0                  |            |              | 0            |            |
| 34     | Delhi  | 0                  |            |              | 0            |            |
| 35     | Lakshadweep  | 0                  |            |              | 0            |            |
| 36     | Puducherry   | 0                  |            |              | 0            |            |
|        | <b>Total</b>   | <b>4,765</b>       | <b>629</b> | <b>3,831</b> | <b>4,460</b> | <b>305</b> |

*Note: Western Coal fields are located in Maharashtra and in Madhya Pradesh.  
Eastern Coal Fields are located in Jharkhand & in West Bengal.*

**Length of Roads under Electricity Departments of States/UTs - By Type of Surface in India as on 31.03.2018**

(in km)

| S.No         | Name of State/UT     | Total Length | Surfaced     |              |              | Unsurfaced |
|--------------|----------------------|--------------|--------------|--------------|--------------|------------|
|              |                      |              | W.B.M.       | B.T./C.C     | Total (4+5)  |            |
| 1            | 2                    | 3            | 4            | 5            | 6            | 7          |
| 1            | Andhra Pradesh       | 118          | 34           | 81           | 115          | 3          |
| 2            | Arunachal Pradesh    |              |              |              |              |            |
| 3            | Assam*               | 113          | 21           | 77           | 98           | 15         |
| 4            | Bihar*               | 529          | 148          | 360          | 508          | 21         |
| 5            | Chhattisgarh*        | 169          | 27           | 140          | 167          | 2          |
| 6            | Goa                  | 0            | 0            | 0            | 0            | 0          |
| 7            | Gujarat              | 462          | 235          | 213          | 448          | 14         |
| 8            | Haryana              | 131          | 9            | 122          | 131          | 0          |
| 9            | Himachal Pradesh*    | 99           | 35           | 40           | 75           | 24         |
| 10           | Jammu & Kashmir      | 0            | 0            | 0            | 0            | 0          |
| 11           | Jharkhand*           | 181          | 26           | 153          | 179          | 2          |
| 12           | Karnataka*           | 1,441        | 132          | 1,284        | 1,416        | 24         |
| 13           | Kerala*              | 252          | 47           | 186          | 233          | 19         |
| 14           | Madhya Pradesh       | 797          | 302          | 440          | 742          | 55         |
| 15           | Maharashtra*         | 343          | 183          | 124          | 307          | 36         |
| 16           | Manipur              | 0            | 0            | 0            | 0            | 0          |
| 17           | Meghalaya*           | 132          | 6            | 111          | 117          | 15         |
| 18           | Mizoram *            | 134          | 3            | 21           | 24           | 110        |
| 19           | Nagaland             | 0            | 0            | 0            | 0            | 0          |
| 20           | Odisha*              | 70           | 37           | 31           | 68           | 2          |
| 21           | Punjab*              | 449          | 28           | 393          | 421          | 28         |
| 22           | Rajasthan*           | 388          | 11           | 375          | 386          | 2          |
| 23           | Sikkim               | 0            | 0            | 0            | 0            | 0          |
| 24           | Tamil Nadu           | 844          | 165          | 616          | 781          | 63         |
| 25           | Telangana*           | 126          | 22           | 104          | 126          | 0          |
| 26           | Tripura              | 0            | 0            | 0            | 0            | 0          |
| 27           | Uttarakhand*         | 165          | 4            | 145          | 149          | 15         |
| 28           | Uttar Pradesh        | 24           | 0            | 19           | 19           | 5          |
| 29           | West Bengal*         | 216          | 8            | 161          | 169          | 47         |
| 30           | A & N Islands        | 0            | 0            | 0            | 0            | 0          |
| 31           | UT Chandigarh        | 0            | 0            | 0            | 0            | 0          |
| 32           | Dadra & Nagar Haveli | 0            | 0            | 0            | 0            | 0          |
| 33           | Daman & Diu          | 0            | 0            | 0            | 0            | 0          |
| 34           | Delhi*               | 52           | 1            | 51           | 52           | 0          |
| 35           | Lakshadweep          | 0            | 0            | 0            | 0            | 0          |
| 36           | Puducherry           | 0            | 0            | 0            | 0            | 0          |
| <b>Total</b> |                      | <b>7,235</b> | <b>1,484</b> | <b>5,248</b> | <b>6,733</b> | <b>502</b> |

Source : State Departments of Electricity

Blank cells refer to States and UTs who have not furnished data or have insignificant or nil electricity roads

\* Figures is as on 31/03/2017-Data not received.



**Length of Roads under Irrigation Departments of States/Uts - By Type of Surface in India  
As on 31.03.2018**

(in km)

| S.No | Name of State/UT  | (6+7)          | Surfaced      |               |               | Unsurfaced    |
|------|-------------------|----------------|---------------|---------------|---------------|---------------|
|      |                   |                | W.B.M.        | B.T./C.C      | Total (4+5)   | Total         |
| 1    | 2                 | 3              | 4             | 5             | 6             | 7             |
| 1    | Andhra Pradesh*   | 848            | 434           | 249           | 683           | 165           |
| 2    | Arunachal Pradesh |                |               |               |               |               |
| 3    | Assam             | 1,483          | 35            | 14            | 49            | 1,433         |
| 4    | Bihar             |                |               |               |               |               |
| 5    | Chhattisgarh*     | 3,023          | 111           | 296           | 407           | 2,616         |
| 6    | Goa               | 159            | 22            | 84            | 106           | 53            |
| 7    | Gujarat           | 8,768          | 1,340         | 825           | 2,165         | 6,603         |
| 8    | Haryana           | 1,437          | 6             | 105           | 111           | 1,326         |
| 9    | Himachal Pradesh  | 4,452          | 764           | 1,868         | 2,632         | 1,820         |
| 10   | Jammu & Kashmir * | 422            | 133           | 0             | 133           | 289           |
| 11   | Jharkhand         | 2,604          | 566           | 133           | 700           | 1,904         |
| 12   | Karnataka*        | 9,731          | 4,425         | 1,825         | 6,250         | 3,481         |
| 13   | Kerala            | 3,939          | 615           | 1,784         | 2,399         | 1,540         |
| 14   | Madhya Pradesh*   | 4,670          | 1,243         | 715           | 1,958         | 2,712         |
| 15   | Maharashtra       | 7,497          | 1,871         | 1,059         | 2,931         | 4,567         |
| 16   | Manipur           |                |               |               |               |               |
| 17   | Meghalaya         | 180            | 6             | 7             | 14            | 166           |
| 18   | Mizoram           |                |               |               |               |               |
| 19   | Nagaland *        | 0              | 0             | 0             | 0             | 0             |
| 20   | Odisha            | 17,388         | 4,430         | 3,113         | 7,542         | 9,845         |
| 21   | Punjab*           | 8,243          | 66            | 1,469         | 1,535         | 6,708         |
| 22   | Rajasthan*        | 839            | 136           | 387           | 523           | 316           |
| 23   | Sikkim            | 0              | 0             | 0             | 0             | 0             |
| 24   | Tamil Nadu        | 4,070          | 281           | 1,671         | 1,952         | 2,118         |
| 25   | Telangana *       | 1,726          | 203           | 582           | 785           | 941           |
| 26   | Tripura           | 82             | 0             | 9             | 9             | 72            |
| 27   | Uttarakhand *     | 406            | 18            | 325           | 343           | 63            |
| 28   | Uttar Pradesh*    | 20,492         | 0             | 3,049         | 3,049         | 17,443        |
| 29   | West Bengal *     | 5,625          | 1,608         | 716           | 2,325         | 3,301         |
| 30   | A & N Islands     |                |               |               |               |               |
| 31   | UT Chandigarh     |                |               |               |               |               |
| 32   | D & N Haveli      |                |               |               |               |               |
| 33   | Daman & Diu       |                |               |               |               |               |
| 34   | Delhi             |                |               |               |               |               |
| 35   | Lakshadweep       |                |               |               |               |               |
| 36   | Puducherry        |                |               |               |               |               |
|      | <b>Total</b>      | <b>108,083</b> | <b>18,314</b> | <b>20,286</b> | <b>38,600</b> | <b>69,483</b> |

Source : State Departments of Irrigation

Blank cells refer to States and UTs who have not furnished data or have insignificant or nil irrigation roads

\* Figures is as on 31/03/2016-Data not received.

**Length of Roads under Sugarcane Departments of States/UTs - By Type of Surface in India  
As on 31.03.2017**

(in km)

| S.No         | Name of State/UT     | Total Length  | Surfaced |               |               | Unsurfaced   |
|--------------|----------------------|---------------|----------|---------------|---------------|--------------|
|              |                      |               | W.B.M.   | B.T./C.C      | Total (4+5)   |              |
| 1            | 2                    | 3             | 4        | 5             | 6             | 7            |
| 1            | Andhra Pradesh       |               |          |               |               |              |
| 2            | Arunachal Pradesh    |               |          |               |               |              |
| 3            | Assam                |               |          |               |               |              |
| 4            | Bihar                |               |          |               |               |              |
| 5            | Chhattisgarh         |               |          |               |               |              |
| 6            | Goa                  |               |          |               |               |              |
| 7            | Gujarat              |               |          |               |               |              |
| 8            | Haryana              |               |          |               |               |              |
| 9            | Himachal Pradesh     |               |          |               |               |              |
| 10           | Jammu & Kashmir      |               |          |               |               |              |
| 11           | Jharkhand            |               |          |               |               |              |
| 12           | Karnataka            | 156           | 0        | 52            | 52            | 104          |
| 13           | Kerala               |               |          |               |               |              |
| 14           | Madhya Pradesh       |               |          |               |               |              |
| 15           | Maharashtra          |               |          |               |               |              |
| 16           | Manipur              |               |          |               |               |              |
| 17           | Meghalaya            |               |          |               |               |              |
| 18           | Mizoram              |               |          |               |               |              |
| 19           | Nagaland             |               |          |               |               |              |
| 20           | Odisha               |               |          |               |               |              |
| 21           | Punjab               |               |          |               |               |              |
| 22           | Rajasthan            |               |          |               |               |              |
| 23           | Sikkim               |               |          |               |               |              |
| 24           | Tamil Nadu*          | 1,676         | 0        | 1,676         | 1,676         | 0            |
| 25           | Telangana            |               |          |               |               |              |
| 26           | Tripura              |               |          |               |               |              |
| 27           | Uttarakhand*         | 4             | 0        | 4             | 4             | 0            |
| 28           | Uttar Pradesh        | 13,069        | 0        | 9,555         | 9,555         | 3,514        |
| 29           | West Bengal          |               |          |               |               |              |
| 30           | Andaman & Nicobar    |               |          |               |               |              |
| 31           | UT Chandigarh        |               |          |               |               |              |
| 32           | Dadra & Nagar Haveli |               |          |               |               |              |
| 33           | Daman & Diu          |               |          |               |               |              |
| 34           | Delhi                |               |          |               |               |              |
| 35           | Lakshadweep          |               |          |               |               |              |
| 36           | Puducherry           | 41            | 5        | 28            | 33            | 8            |
| <b>Total</b> |                      | <b>14,947</b> | <b>5</b> | <b>11,315</b> | <b>11,320</b> | <b>3,626</b> |

Source : State Sugarcane Departments

\* Figures is as on 31/03/2016-Data not received.

Blank cells refer to States and UTs who have not furnished data or have insignificant or nil Sugarcane authority roads

**Length of Roads under SAIL & NMDC - By Type of Surface in India  
As on 31.03.2018**

(in km)

| S.No         | Name of State/UT  | Total Length<br>(6+7) | Surfaced   |              |              | Unsurfaced |
|--------------|-------------------|-----------------------|------------|--------------|--------------|------------|
|              |                   |                       | W.B.M.     | B.T./C.C     | Total (4+5)  |            |
| 1            | 2                 | 3                     | 4          | 5            | 6            | 7          |
| 1            | Andhra Pradesh    | 8                     | 0.935      | 5.675        | 6.61         | 2          |
| 2            | Arunachal Pradesh | 0                     | 0          | 0            | 0            |            |
| 3            | Assam             |                       |            |              |              |            |
| 4            | Bihar             |                       |            |              |              |            |
| 5            | Chhattisgarh      | 919                   | 757        | 126          | 882          | 37         |
| 6            | Goa               |                       |            |              |              |            |
| 7            | Gujarat           |                       |            |              |              |            |
| 8            | Haryana           |                       |            |              |              |            |
| 9            | Himachal Pradesh  |                       |            |              |              |            |
| 10           | Jammu & Kashmir   |                       |            |              |              |            |
| 11           | Jharkhand         | 552                   | 12         | 491          | 503          | 50         |
| 12           | Karnataka         | 109                   | 10         | 78           | 88           | 21         |
| 13           | Kerala            |                       |            |              |              |            |
| 14           | Madhya Pradesh    | 40                    | 11         | 16           | 27           | 13         |
| 15           | Maharashtra       | 18                    | 3          | 8            | 11           | 7          |
| 16           | Manipur           |                       |            |              |              |            |
| 17           | Meghalaya         |                       |            |              |              |            |
| 18           | Mizoram           |                       |            |              |              |            |
| 19           | Nagaland          |                       |            |              |              |            |
| 20           | Odisha            | 484                   | 13         | 453          | 465          | 19         |
| 21           | Punjab            |                       |            |              |              |            |
| 22           | Rajasthan         |                       |            |              |              |            |
| 23           | Sikkim            |                       |            |              |              |            |
| 24           | Tamil Nadu        | 96                    | 0          | 96           | 96           | 0          |
| 25           | Telangana         | 8                     | 1          | 6            | 7            | 2          |
| 26           | Tripura           |                       |            |              |              |            |
| 27           | Uttarakhand       |                       |            |              |              |            |
| 28           | Uttar Pradesh     |                       |            |              |              |            |
| 29           | West Bengal       | 631                   | 28         | 588          | 616          | 14         |
| 30           | A & N Islands     |                       |            |              |              |            |
| 31           | UT Chandigarh     |                       |            |              |              |            |
| 32           | D & N Haveli      |                       |            |              |              |            |
| 33           | Daman & Diu       |                       |            |              |              |            |
| 34           | Delhi             |                       |            |              |              |            |
| 35           | Lakshadweep       |                       |            |              |              |            |
| 36           | Puducherry        |                       |            |              |              |            |
| <b>Total</b> |                   | <b>2,865</b>          | <b>835</b> | <b>1,866</b> | <b>2,701</b> | <b>164</b> |

Sources: 1. Steel Authority of India Limited

2. National Mineral Development Corporation

Blank cells refer to States and UTs who have not furnished data or have insignificant or nil SAIL/ NMDC roads

\* Figures is as on 31/03/2016-Data not received.

## Road Density per 1000 Sq. Km of Roads in Rural and Urban area

| Name of the States     | Area      | Rural Area (2011 census) | Urban Area (2011 census) | Rural Pop (2011 census) | Urban Pop (2011 census) | Total Population | Rural Road length (as on 31/3/2018) | Urban Road length (as on 31/3/2018) | Total Road Length (as on 31/3/2018) | Road Density for Entire States | Entire State Road length per 1000 sq km | Urban Road length per 1000 sq km | Rural Road length per 1000 sq km | Entire State Road length per 1000 pop |
|------------------------|-----------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------|---|----------------------------------|----------------------------------|---------------------------------------|
| Andhra Pradesh         | 275,045   | 267,191                  | 7,855                    | 56,361,702              | 28,219,075              | 84,580,777       | 217,892                             | 34,878                              | 355,204                             | 4,440                          | 815                                     | 1,291                            | 1.24                             | 3.87                                  |
| Andhra Pradesh         | 83,743    |                          |                          | 1,066,358               | 317,369                 | 1,383,727        | 20,807                              | 56                                  | 59,394                              |                                |   | 709                              | 0.18                             | 19.51                                 |
| Assam                  | 78,438    | 77,178                   | 1,260                    | 26,807,034              | 4,398,542               | 31,205,576       | 303,672                             | 5,603                               | 348,616                             | 4,447                          | 3,935                                   | 4,444                            | 1.27                             | 11.33                                 |
| Bihar                  | 94,163    | 91,838                   | 2,325                    | 92,341,436              | 11,758,016              | 104,099,452      | 258,800                             | 9,184                               | 293,913                             | 3,951                          | 2,818                                   | 3,121                            | 0.78                             | 2.80                                  |
| Chhattisgarh           | 135,192   | 131,940                  | 3,252                    | 19,607,961              | 5,937,237               | 25,545,198       | 54,308                              | 12,765                              | 106,252                             | 3,926                          | 412                                     | 786                              | 2.15                             | 2.77                                  |
| Goa                    | 3,702     | 2,937                    | 765                      | 551,731                 | 906,814                 | 1,458,545        | 15,618                              | 902                                 | 25,055                              | 1,800                          | 5,317                                   | 6,768                            | 0.99                             | 28.31                                 |
| Gujarat                | 196,244   | 188,839                  | 7,405                    | 34,694,609              | 25,745,083              | 60,439,692       | 86,030                              | 30,305                              | 202,104                             | 4,092                          | 456                                     | 1,030                            | 1.18                             | 2.48                                  |
| Haryana                | 44,212    | 42,236                   | 1,976                    | 16,909,359              | 8,842,103               | 25,351,462       | 7,027                               | 14,914                              | 53,283                              | 7,547                          | 166                                     | 1,205                            | 1.69                             | 4.30                                  |
| Himachal Pradesh       | 55,673    | 55,402                   | 271                      | 6,176,050               | 688,552                 | 6,864,602        | 43,490                              | 3,536                               | 64,722                              | 13,058                         | 785                                     | 1,163                            | 5.14                             | 7.04                                  |
| Jammu & Kashmir (1) ++ | 222,236   | 220,990                  | 1,246                    | 9,108,060               | 3,433,242               | 12,541,302       | 65,848                              | 1,939                               | 111,227                             | 1,556                          | 298                                     | 500                              | 0.56                             | 7.23                                  |
| Jharkhand              | 79,716    | 77,292                   | 2,424                    | 25,055,073              | 7,933,061               | 32,988,134       | 43,564                              | 6,998                               | 80,285                              | 2,887                          | 564                                     | 1,007                            | 0.88                             | 1.74                                  |
| Karnataka              | 191,791   | 185,777                  | 6,014                    | 37,469,335              | 23,625,962              | 61,095,297       | 215,928                             | 41,403                              | 351,034                             | 6,884                          | 1,162                                   | 1,830                            | 1.75                             | 5.76                                  |
| Kerala                 | 38,852    | 31,253                   | 7,599                    | 17,471,135              | 15,934,926              | 33,406,061       | 181,335                             | 33,174                              | 258,896                             | 4,366                          | 5,802                                   | 6,664                            | 2.08                             | 10.38                                 |
| Madhya Pradesh         | 308,252   | 300,506                  | 7,746                    | 52,557,404              | 20,069,405              | 72,626,809       | 232,331                             | 30,691                              | 359,022                             | 3,962                          | 773                                     | 1,165                            | 1.53                             | 4.42                                  |
| Maharashtra            | 307,713   | 298,619                  | 9,094                    | 61,556,074              | 50,818,259              | 112,374,333      | 414,728                             | 23,543                              | 611,867                             | 2,589                          | 1,389                                   | 1,988                            | 0.46                             | 6.74                                  |
| Manipur                | 22,327    | 22,148                   | 180                      | 2,021,640               | 834,154                 | 2,855,794        | 15,817                              | 132                                 | 30,378                              | 738                            | 714                                     | 1,361                            | 0.16                             | 7.82                                  |
| Meghalaya              | 22,429    | 22,146                   | 283                      | 2,371,439               | 595,450                 | 2,966,889        | 36,348                              | 69                                  | 45,469                              | 242                            | 1,641                                   | 2,027                            | 0.12                             | 15.33                                 |
| Mizoram                | 21,081    | 20,494                   | 587                      | 525,435                 | 571,771                 | 1,097,206        | 6,124                               | 2,860                               | 14,637                              | 4,871                          | 299                                     | 694                              | 5.00                             | 11.66                                 |
| Nagaland               | 16,579    | 16,336                   | 243                      | 1,407,536               | 570,966                 | 1,978,502        | 26,895                              | 36                                  | 37,762                              | 147                            | 1,646                                   | 2,278                            | 0.06                             | 19.11                                 |
| Odisha                 | 155,707   | 152,355                  | 3,352                    | 34,970,562              | 7,003,656               | 41,974,218       | 233,790                             | 21,010                              | 305,083                             | 6,269                          | 1,535                                   | 1,959                            | 3.00                             | 6.69                                  |
| Punjab                 | 50,362    | 47,847                   | 2,515                    | 17,344,192              | 10,399,146              | 27,743,338       | 102,267                             | 18,822                              | 141,693                             | 7,485                          | 2,137                                   | 2,813                            | 1.81                             | 5.90                                  |
| Rajasthan              | 342,239   | 335,606                  | 6,633                    | 51,500,352              | 17,048,085              | 68,548,437       | 213,572                             | 32,448                              | 306,255                             | 4,892                          | 636                                     | 895                              | 1.90                             | 4.15                                  |
| Sikkim                 | 7,096     | 7,058                    | 38                       | 456,999                 | 153,578                 | 610,577          | 10,180                              | 69                                  | 14,798                              | 1,802                          | 1,442                                   | 2,085                            | 0.45                             | 22.28                                 |
| Tamil Nadu             | 130,060   | 116,424                  | 13,636                   | 37,229,590              | 34,917,440              | 72,147,030       | 169,853                             | 25,050                              | 264,814                             | 1,837                          | 1,459                                   | 2,036                            | 0.72                             | 4.56                                  |
| Tripura                | 10,486    | 10,094                   | 392                      | 2,712,464               | 961,453                 | 3,673,917        | 38,823                              | 581                                 | 43,516                              | 1,483                          | 3,846                                   | 4,150                            | 0.60                             | 14.31                                 |
| Uttar Pradesh          | 240,928   | 233,366                  | 7,562                    | 155,317,278             | 44,495,063              | 199,812,341      | 255,942                             | 63,803                              | 50,753                              | 8,437                          | 1,097                                   | 211                              | 1.43                             | 1.65                                  |
| Uttarakhand            | 53,483    | 52,581                   | 902                      | 7,036,954               | 3,049,338               | 10,086,292       | 29,809                              | 5,514                               | 425,420                             | 6,113                          | 567                                     | 7,954                            | 1.81                             | 4.24                                  |
| West Bengal            | 88,752    | 83,626                   | 5,126                    | 62,183,113              | 29,093,002              | 91,276,115       | 204,688                             | 94,948                              | 326,384                             | 18,524                         | 2,448                                   | 3,677                            | 3.26                             | 3.29                                  |
| A. & N. Islands        | 8,249     | 8,211                    | 38                       | 237,093                 | 143,488                 | 380,581          | 557                                 | 187                                 | 1,755                               | 4,933                          | 68                                      | 213                              | 1.30                             | 2.35                                  |
| Chandigarh             | 114       | 4                        | 110                      | 28,991                  | 1,026,459               | 1,055,450        | 0                                   | 2,432                               | 2,594                               | 22,208                         | 0                                       | 22,757                           | 2.37                             | 0.00                                  |
| D. & N. Havelli        | 491       | 445                      | 46                       | 183,114                 | 160,595                 | 343,709          | 853                                 | 83                                  | 1,220                               | 1,825                          | 1,915                                   | 2,485                            | 0.52                             | 4.66                                  |
| Daman & Diu            | 111       | 62                       | 49                       | 60,396                  | 182,851                 | 243,247          | 116                                 | 146                                 | 375                                 | 3,017                          | 1,863                                   | 3,381                            | 0.80                             | 1.93                                  |
| Delhi                  | 1,483     | 326                      | 1,157                    | 419,042                 | 16,368,899              | 16,787,941       | 0                                   | 15,012                              | 17,548                              | 12,980                         | 0                                       | 11,833                           | 0.92                             | 10.00                                 |
| Lakshadweep            | 30        | 9                        | 21                       | 14,141                  | 50,332                  | 64,473           | 217                                 | 8                                   | 239                                 | 368                            | 23,640                                  | 7,981                            | 0.15                             | 15.33                                 |
| Puducherry             | 490       | 335                      | 155                      | 395,200                 | 852,753                 | 1,247,953        | 2,354                               | 1,040                               | 4,229                               | 6,731                          | 7,018                                   | 8,630                            | 1.22                             | 5.96                                  |
| INDIA (1) ++           | 3,287,469 | 3,101,474                | 102,252                  | 833,748,852             | 377,106,125             | 1,210,854,977    | 3,509,582                           | 534,142                             | 5,315,997                           | 5,224                          | 1,132                                   | 1,617                            | 1.42                             | 4.21                                  |

Note : Andhra Pradesh includes the road length of Telengana

Total length excludes JRY roads

## Road Density per 1000 Sq. Km for different Categories of Roads

| Name of the States | Road Density per 1000 Sq. Km |                |                |             |             |               |                   |            |              |                   |                |                |             |             |               |
|--------------------|------------------------------|----------------|----------------|-------------|-------------|---------------|-------------------|------------|--------------|-------------------|----------------|----------------|-------------|-------------|---------------|
|                    | National Highways            | State Highways | District Roads | Rural Roads | Urban roads | Project Roads | Total road Length | Total Area | Road Density | National Highways | State Highways | District Roads | Rural Roads | Urban roads | Project Roads |
| 1                  | 2                            | 3              | 4              | 5           | 6           | 7             | 8                 | 9          | 10           | 11                | 12             | 13             | 14          | 15          | 16            |
| Andhra Pradesh(*)  | 10,207                       | 15,753         | 58,083         | 217,892     | 34,878      | 9,447         | 346,260           | 275,045    | 1,258.92     | 37.11             | 57.28          | 211.18         | 792.20      | 126.81      | 34.35         |
| Arunachal Pradesh  | 2,537                        | 13,500         | 8,731          | 20,807      | 56          | 4,924         | 50,555            | 83,743     | 603.69       | 30.30             | 161.21         | 104.26         | 248.46      | 0.67        | 58.80         |
| Assam              | 3,909                        | 2,530          | 6,093          | 303,672     | 5,603       | 21,803        | 343,609           | 78,438     | 4,380.65     | 49.84             | 32.25          | 77.08          | 3,871.49    | 71.43       | 277.96        |
| Bihar              | 4,877                        | 4,006          | 11,145         | 258,800     | 9,184       | 2,559         | 290,571           | 94,163     | 3,085.83     | 51.79             | 42.54          | 118.36         | 2,748.43    | 97.53       | 27.18         |
| Chhattisgarh       | 3,592                        | 4,176          | 11,965         | 54,308      | 12,765      | 15,772        | 102,578           | 135,192    | 758.76       | 26.57             | 30.89          | 88.50          | 401.71      | 94.42       | 116.66        |
| Goa                | 293                          | 280            | 1,191          | 15,618      | 902         | 323           | 18,607            | 3,702      | 5,026.19     | 79.15             | 75.63          | 321.80         | 4,218.72    | 243.71      | 87.19         |
| Gujarat            | 6,050                        | 17,201         | 30,809         | 86,030      | 30,305      | 31,347        | 201,742           | 196,244    | 1,028.02     | 63.06             | 87.65          | 156.99         | 438.38      | 154.43      | 159.73        |
| Haryana            | 2,788                        | 1,801          | 21,897         | 7,027       | 14,914      | 1,594         | 50,021            | 44,212     | 1,131.39     | 63.06             | 40.74          | 495.27         | 158.93      | 337.33      | 36.06         |
| Himachal Pradesh   | 2,607                        | 827            | 3,647          | 43,490      | 3,536       | 7,792         | 61,899            | 55,673     | 1,111.83     | 46.83             | 14.85          | 65.50          | 781.16      | 63.52       | 139.96        |
| Jammu & Kashmir    | 2,327                        | 310            | 19,695         | 65,848      | 1,939       | 18,557        | 108,677           | 222,236    | 489.01       | 10.47             | 1.40           | 88.62          | 296.30      | 8.73        | 83.50         |
| Jharkhand          | 2,686                        | 1,252          | 10,476         | 43,564      | 6,998       | 14,106        | 79,062            | 79,716     | 991.80       | 33.69             | 15.45          | 131.42         | 546.49      | 87.79       | 176.96        |
| Karnataka          | 7,266                        | 19,521         | 49,952         | 215,928     | 41,403      | 20,435        | 354,505           | 191,791    | 1,848.39     | 37.88             | 101.78         | 260.45         | 1,125.85    | 215.87      | 106.55        |
| Kerala             | 1,781                        | 4,342          | 27,470         | 181,335     | 33,174      | 8,983         | 257,085           | 38,852     | 6,617.03     | 45.84             | 111.75         | 707.05         | 4,667.33    | 853.85      | 231.20        |
| Madhya Pradesh     | 8,219                        | 11,389         | 45,524         | 232,331     | 30,691      | 35,818        | 363,972           | 308,252    | 1,180.76     | 26.66             | 36.95          | 147.68         | 733.70      | 99.57       | 116.20        |
| Maharashtra        | 17,728                       | 38,999         | 109,530        | 414,728     | 23,543      | 21,993        | 626,521           | 307,713    | 2,036.06     | 57.61             | 126.74         | 355.95         | 1,347.78    | 76.51       | 171.47        |
| Manipur            | 1,751                        | 715            | 9,467          | 15,817      | 132         | 2,998         | 29,180            | 22,327     | 1,306.96     | 78.43             | 32.02          | 424.02         | 708.43      | 5.93        | 58.13         |
| Meghalaya          | 1,155                        | 781            | 5,023          | 36,348      | 69          | 460           | 43,836            | 22,429     | 1,954.42     | 51.50             | 34.82          | 223.95         | 1,620.59    | 3.05        | 20.51         |
| Mizoram            | 1,423                        | 1,70           | 1,714          | 6,124       | 2,860       | 1,083         | 13,374            | 21,081     | 634.43       | 67.50             | 8.07           | 81.31          | 290.52      | 135.64      | 51.39         |
| Nagaland           | 1,548                        | 722            | 6,467          | 26,895      | 36          | 1,035         | 36,703            | 16,579     | 2,213.83     | 93.37             | 43.55          | 390.09         | 1,622.22    | 2.16        | 62.44         |
| Odisha             | 5,430                        | 4,138          | 17,877         | 233,790     | 21,010      | 25,731        | 307,976           | 155,707    | 1,977.92     | 34.87             | 26.57          | 114.81         | 1,501.47    | 134.94      | 165.25        |
| Punjab             | 3,269                        | 1,103          | 6,980          | 102,267     | 18,822      | 10,195        | 142,635           | 50,362     | 2,832.20     | 64.91             | 21.90          | 138.60         | 2,030.63    | 373.72      | 202.44        |
| Rajasthan          | 8,916                        | 15,085         | 23,670         | 213,572     | 32,448      | 19,699        | 313,390           | 342,239    | 915.70       | 26.05             | 44.08          | 69.16          | 624.04      | 94.81       | 57.56         |
| Sikkim             | 463                          | 663            | 1,469          | 10,180      | 69          | 666           | 13,510            | 7,096      | 1,903.86     | 65.25             | 93.45          | 206.97         | 1,434.56    | 9.71        | 93.91         |
| Tamil Nadu         | 6,741                        | 11,830         | 46,496         | 169,853     | 25,050      | 10,038        | 270,007           | 130,060    | 2,076.02     | 51.83             | 90.96          | 357.50         | 1,305.96    | 192.60      | 77.18         |
| Tripura            | 854                          | 1,057          | 461            | 38,823      | 581         | 1,439         | 43,215            | 10,486     | 4,121.21     | 81.44             | 100.80         | 43.96          | 3,702.40    | 55.41       | 137.20        |
| Uttar Pradesh      | 2,949                        | 4,387          | 4,906          | 29,809      | 5,514       | 5,284         | 52,848            | 240,928    | 219.35       | 12.24             | 18.21          | 20.36          | 123.72      | 22.89       | 21.93         |
| Uttarakhand        | 11,376                       | 6,810          | 56,314         | 255,942     | 63,803      | 42,088        | 436,333           | 53,483     | 8,158.34     | 212.70            | 127.33         | 1,052.93       | 4,785.49    | 1,192.95    | 786.94        |
| West Bengal        | 3,074                        | 3,262          | 10,449         | 204,688     | 94,948      | 12,703        | 329,126           | 88,752     | 3,708.38     | 34.64             | 36.76          | 117.74         | 2,306.30    | 1,069.82    | 143.13        |
| A. & N. Islands    | 332                          | 257            | 180            | 557         | 187         | 282           | 1,794             | 8,249      | 217.50       | 40.25             | 31.14          | 21.77          | 67.51       | 22.68       | 34.16         |
| Chandigarh         | 15                           | 9              | 83             | 0           | 2,432       | 0             | 2,539             | 114        | 22,274.56    | 131.58            | 77.98          | 728.07         | 0.00        | 21,336.93   | 0.00          |
| D & N. Haveli      | 31                           | 30             | 190            | 853         | 83          | 0             | 1,187             | 491        | 2,417.57     | 63.14             | 61.10          | 386.97         | 1,736.55    | 169.83      | 0.00          |
| Daman & Diu        | 22                           | 22             | 59             | 116         | 146         | 1             | 366               | 111        | 3,299.82     | 198.20            | 198.20         | 527.03         | 1,048.65    | 1,318.74    | 9.01          |
| Delhi              | 70                           | 0              | 2,462          | 0           | 15,012      | 52            | 17,596            | 1,483      | 11,865.37    | 47.20             | 0.00           | 1,660.15       | 0.00        | 10,122.96   | 35.06         |
| Lakshadweep        | 0                            | 0              | 0              | 0           | 217         | 8             | 224               | 30         | 7,481.33     | 0.00              | 0.00           | 0.00           | 7,226.00    | 255.33      | 0.00          |
| Puducherry         | 64                           | 0              | 793            | 2,354       | 1,040       | 41            | 4,293             | 490        | 8,760.93     | 130.61            | 0.00           | 1,618.74       | 4,804.63    | 2,123.26    | 83.67         |
| INDIA (I) ++       | 126,350                      | 186,908        | 611,268        | 3,509,582   | 534,142     | 347,547       | 5,315,797         | 3,287,469  | 1,616.99     | 38.43             | 56.85          | 185.94         | 1,067.56    | 162.48      | 105.72        |

Note : Andhra Pradesh includes the road length of Telengana

Total length excludes JRY roads

## Road length per 1000 population

| Name of the States | National Highways | State Highways | District Roads | Rural Roads | Urban Roads | Project Roads | Total road Length | Total Population | Road length per '000 | Road length per '000 Population |                |                |             |             |               |
|--------------------|-------------------|----------------|----------------|-------------|-------------|---------------|-------------------|------------------|----------------------|---------------------------------|----------------|----------------|-------------|-------------|---------------|
|                    |                   |                |                |             |             |               |                   |                  |                      | National Highways               | State Highways | District Roads | Rural Roads | Urban Roads | Project Roads |
| 1                  | 2                 | 3              | 4              | 5           | 6           | 7             | 8                 | 9                | 10                   | 11                              | 12             | 13             | 14          | 15          | 16            |
| Andhra Pradesh(*)  | 10,207            | 15,753         | 58,083         | 217,892     | 34,878      | 9,447         | 346,260           | 84,581           | 4.09                 | 0.12                            | 0.19           | 0.69           | 2.58        | 0.41        | 0.11          |
| Andhra Pradesh     | 2,537             | 13,500         | 8,731          | 20,807      | 56          | 4,924         | 50,555            | 1,384            | 36.54                | 1.83                            | 9.76           | 6.31           | 15.04       | 0.04        | 3.56          |
| Assam              | 3,909             | 2,530          | 6,093          | 303,672     | 5,603       | 21,803        | 343,609           | 31,206           | 11.01                | 0.13                            | 0.08           | 0.20           | 9.73        | 0.18        | 0.70          |
| Bihar              | 4,877             | 4,006          | 11,145         | 258,800     | 9,184       | 2,559         | 290,571           | 104,099          | 2.79                 | 0.05                            | 0.04           | 0.11           | 2.49        | 0.09        | 0.02          |
| Chhattisgarh       | 3,592             | 4,176          | 11,965         | 54,308      | 12,765      | 15,772        | 102,578           | 25,545           | 4.02                 | 0.14                            | 0.16           | 0.47           | 2.13        | 0.50        | 0.62          |
| Goa                | 293               | 280            | 1,191          | 15,618      | 902         | 323           | 18,607            | 1,459            | 12.76                | 0.20                            | 0.19           | 0.82           | 10.71       | 0.62        | 0.22          |
| Gujarat            | 6,050             | 17,201         | 30,809         | 86,030      | 30,305      | 31,347        | 201,742           | 60,440           | 3.34                 | 0.10                            | 0.28           | 0.51           | 1.42        | 0.50        | 0.52          |
| Haryana            | 2,788             | 1,801          | 21,897         | 7,027       | 14,914      | 1,594         | 50,021            | 25,351           | 1.97                 | 0.11                            | 0.07           | 0.86           | 0.28        | 0.59        | 0.06          |
| Himachal Pradesh   | 2,607             | 827            | 3,647          | 43,490      | 3,536       | 7,792         | 61,899            | 6,865            | 9.02                 | 0.18                            | 0.12           | 0.53           | 6.34        | 0.52        | 1.14          |
| Jammu & Kashmir    | 2,327             | 310            | 19,695         | 63,848      | 1,939       | 18,557        | 108,677           | 12,541           | 8.67                 | 0.39                            | 0.02           | 1.57           | 5.25        | 0.15        | 1.48          |
| Jharkhand          | 2,686             | 1,232          | 10,476         | 43,564      | 6,998       | 14,106        | 79,062            | 32,988           | 2.40                 | 0.08                            | 0.04           | 0.32           | 1.32        | 0.21        | 0.43          |
| Karnataka          | 7,266             | 19,521         | 49,952         | 215,928     | 41,403      | 20,435        | 354,505           | 61,095           | 5.80                 | 0.12                            | 0.32           | 0.82           | 3.53        | 0.68        | 0.33          |
| Kerala             | 1,781             | 4,342          | 27,470         | 181,335     | 33,174      | 8,983         | 257,085           | 33,406           | 7.70                 | 0.05                            | 0.13           | 0.82           | 5.43        | 0.99        | 0.27          |
| Madhya Pradesh     | 8,219             | 11,389         | 45,524         | 232,331     | 30,691      | 35,818        | 363,972           | 72,627           | 5.01                 | 0.11                            | 0.16           | 0.63           | 3.20        | 0.42        | 0.49          |
| Maharashtra        | 17,728            | 38,999         | 109,530        | 414,728     | 23,543      | 21,993        | 626,521           | 112,374          | 5.58                 | 0.16                            | 0.35           | 0.97           | 3.69        | 0.21        | 0.20          |
| Manipur            | 1,751             | 715            | 9,467          | 15,817      | 132         | 1,298         | 29,180            | 2,856            | 10.22                | 0.61                            | 0.25           | 3.32           | 5.54        | 0.05        | 0.45          |
| Meghalaya          | 1,155             | 781            | 5,023          | 36,348      | 69          | 460           | 43,836            | 2,967            | 14.77                | 0.39                            | 0.26           | 1.69           | 12.25       | 0.02        | 0.16          |
| Mizoram            | 1,423             | 170            | 1,714          | 6,124       | 2,860       | 1,083         | 13,374            | 1,097            | 12.19                | 1.30                            | 0.16           | 1.56           | 5.58        | 2.61        | 0.99          |
| Nagaland           | 1,548             | 722            | 6,467          | 26,895      | 36          | 1,035         | 36,703            | 1,979            | 18.55                | 0.78                            | 0.36           | 3.27           | 13.59       | 0.02        | 0.52          |
| Odisha             | 5,430             | 4,138          | 17,877         | 233,790     | 21,010      | 25,731        | 307,976           | 41,974           | 7.34                 | 0.13                            | 0.10           | 0.43           | 5.57        | 0.50        | 0.61          |
| Punjab             | 3,269             | 1,103          | 6,980          | 102,267     | 18,822      | 10,195        | 142,635           | 27,743           | 5.14                 | 0.12                            | 0.04           | 0.25           | 3.69        | 0.68        | 0.37          |
| Rajasthan          | 8,916             | 15,085         | 23,670         | 213,572     | 32,448      | 19,699        | 313,390           | 68,548           | 4.57                 | 0.13                            | 0.22           | 0.35           | 3.12        | 0.47        | 0.29          |
| Sikkim             | 463               | 663            | 1,469          | 10,180      | 69          | 666           | 13,510            | 611              | 22.13                | 0.76                            | 1.09           | 2.41           | 16.67       | 0.11        | 1.09          |
| Tamil Nadu         | 6,741             | 11,830         | 46,496         | 169,853     | 25,050      | 10,038        | 270,007           | 72,147           | 3.74                 | 0.09                            | 0.16           | 0.64           | 2.35        | 0.35        | 0.14          |
| Tripura            | 854               | 1,057          | 461            | 38,823      | 581         | 1,439         | 43,215            | 3,674            | 11.76                | 0.23                            | 0.29           | 0.13           | 10.57       | 0.16        | 0.39          |
| Uttar Pradesh      | 2,949             | 4,387          | 4,906          | 29,809      | 5,514       | 5,284         | 52,848            | 199,812          | 0.26                 | 0.01                            | 0.02           | 0.02           | 0.15        | 0.03        | 0.03          |
| Uttarakhand        | 11,376            | 6,810          | 56,314         | 253,942     | 63,803      | 42,088        | 436,333           | 10,086           | 43.26                | 1.13                            | 0.68           | 5.58           | 25.38       | 6.33        | 4.17          |
| West Bengal        | 3,074             | 3,262          | 10,449         | 204,688     | 94,948      | 12,703        | 329,126           | 91,276           | 3.61                 | 0.03                            | 0.04           | 0.11           | 2.24        | 1.04        | 0.14          |
| A. & N. Islands    | 332               | 257            | 180            | 557         | 187         | 282           | 1,794             | 381              | 4.71                 | 0.87                            | 0.67           | 0.47           | 1.46        | 0.49        | 0.74          |
| Chandigarh         | 15                | 9              | 83             | 0           | 2,432       | 0             | 2,539             | 1,055            | 2.41                 | 0.01                            | 0.01           | 0.08           | 0.00        | 2.30        | 0.00          |
| D. & N. Haveli     | 31                | 30             | 190            | 853         | 83          | 0             | 1,187             | 344              | 3.45                 | 0.09                            | 0.09           | 0.55           | 2.48        | 0.24        | 0.00          |
| Daman & Diu        | 22                | 22             | 59             | 116         | 146         | 1             | 366               | 243              | 1.51                 | 0.09                            | 0.09           | 0.24           | 0.48        | 0.60        | 0.00          |
| Delhi              | 70                | 0              | 2,462          | 0           | 15,012      | 52            | 17,596            | 16,788           | 1.05                 | 0.00                            | 0.00           | 0.15           | 0.00        | 0.89        | 0.00          |
| Lakshadweep        | 0                 | 0              | 0              | 217         | 8           | 0             | 224               | 64               | 3.48                 | 0.00                            | 0.00           | 0.00           | 3.36        | 0.12        | 0.00          |
| Puducherry         | 64                | 0              | 793            | 2,354       | 1,040       | 41            | 4,293             | 1,248            | 3.44                 | 0.05                            | 0.00           | 0.64           | 1.89        | 0.83        | 0.03          |
| INDIA (I) ++       | 126,350           | 186,908        | 611,268        | 3,509,582   | 534,142     | 347,547       | 5,315,797         | 1,210,855        | 4.59                 | 0.10                            | 0.15           | 0.50           | 2.90        | 0.44        | 0.29          |

Note : Andhra Pradesh includes the road length of Telengana

Total length excludes JRY roads

## State/UT-wise details of NHs in country

As on 31.03.2018

| S. No. | State             | National Highway No.   | Total Length (in km) |
|--------|-------------------|--|----------------------|
| 1      | Andhra Pradesh    | 16, 216, 216A, 516D, 516 E, 716, 716A, 716B, 26, 326, 326A, 30, 40, 140, 340, 340C, 42, 44 N.S., 544D, 544DD, 544E, 65, 65&5, 165, 365 BB, 565, 765, 67, 167, 167A, 167B, 69, 71, 75   | 6,412.4              |
| 2      | Arunachal Pradesh | 13, 15, 115, 215, 315, 415, 515, 315A, 113, 313, 513, 713, 713A  | 2,537.4              |
| 3      | Assam             | 2, 702, 702C, 702D, 6, 306, 8, 208A, 15, 115, 215, 315, 315A, 415, 515, 715, 715A, 17, 117, 117A, 217, 27 E.W., 127, 127A, 127B, 127C, 127D, 127E, 427, 627, 29, 129, 329, 329A, 37  | 3,908.5              |
| 4      | Bihar             | 19 G.Q., 119, 219, 319, 20, 120, 22, 122, 122A, 322, 722, 922, 27 E.W., 227, 227A, 327 Ext., 327A, 527, 527A, 527C, 527D, 527B, 727, 727A, 31, 131, 131A, 231, 331, 431, 531, 33, 133, 133B, 333, 333A, 333B, 139  | 4,877.0              |
| 5      | Chandigarh        | 5  | 15.3                 |
| 6      | Chhattisgarh      | 30, 130, 130A, 130B, 130C, 130D, 130CD, 930, 43, 343, 49, 149B, 45, 53, 153, 353, 63, 163, 163A  | 3,590.8              |
| 7      | Delhi             | 9, 19, 44, 48, 148A  | 70.0                 |
| 8      | Goa               | 748, 748AA, 66, 366, 566   | 292.9                |
| 9      | Gujarat           | NE-1, 27, 927D, 341, 47, 147, 147D, 48, 148M, 848, 848A, 848B, 51, 151, 151A, 251, 351, 351F, 751, 751D, 751DD, 53, 753B, 953, 56, 756, 58, 64, 68 Ext, 168, 168A  | 6,050.0              |
| 10     | Haryana           | NE2, 703, 5, 105, 7, 907, 907G, 9, 709, 709 Ext., 709A, 709AD, 11, 919, 334B, 334D, 44, 344, 444A, 48, 148A, 148B, 248A, 248BB, 54, 52, 152, 152A, 352, 352A, 352R, 352W, 254  | 2,787.6              |
| 11     | Himachal Pradesh  | 3, 103, 303, 503, 503A, 5, 105, 205, 305, 505, 505A, 705, 7, 707, 907A, 907, 154, 154A, 44 N.S.  | 2,606.9              |
| 12     | Jammu & Kashmir   | 1, 301, 501, 701, 3, 44, 144, 144A, 244, 444   | 2,327.0              |
| 13     | Jharkhand         | 114A, 18, 19, 419, 20, 220, 320, 22, 522, 33, 133, 333, 133A, 133B, 333A, 39, 139, 43, 143, 143A, 343, 49  | 2,684.6              |
| 14     | Karnataka         | 44 N.S., 48 G.Q., 548B, 548B, 548H, 648, 748, 748AA, 948, 948A, 50, 150, 150A, 150 Ext., 52, 752K, 160 Ext., 161A, 161A Ext., 561A, 163, 65, 66, 166E, 766, 766C, 67, 167, 367, 367A, 69, 169, 169A, 369, 369E, 73, 173, 173 Ext., 373, 75, 275, 275K, 181   | 7,266.9              |
| 15     | Kerala            | 544, 744, 66, 766, 966, 966 A, 966 B, 183, 183A, 85, 185   | 1,781.6              |
| 16     | Madhya Pradesh    | 719, 27, 927A, 30, 34, 135, 135B, 135BB, 135BD, 135BG, 135C, 44, 45, 934, 39, 339B, 539, 43, 543, 943, 46, 146, 146B, 346, 47, 147E, 347, 347A, 347B, 347C, 547, 548C, 52, 552 Ext., 752B, 752C, 752G, 753L, 56, 161G  | 8,219.3              |
| 17     | Maharashtra       | 930, 930D, 130D, 543, 44, 47, 547, 547E, 347C, 247, 647, 347A, 48, 348, 348A, 348B, 348BB, 548A, 548DD, 548H, 548D, 548, 548B, 548C, 548CC, 548E, 848, 848A, 50, 150 Extn., 52, 652, 752G, 752I, 752K, 752E, 752E Ext. 752H, 53, 353C, 353D, 353E, 753, 753A, 753B, 753E, 753F, 953, 353B, 353I, 753J, 753L, 353J, 353K, 753C, 753BB, 753AB, 753H, 753M, 60, 160, 160A, 160B, 160A Ext., 160C, 160H, 160D, 61, 161, 161A, 161G Ext., 161H, 161G, 461B, 361F, 161E, 361, 361B, 361C, 361H, 561A, 561, 561, 761, 63, 65, 465, 965, 965DD, 965D, 965C, 965G, 66, 166, 166A, 166H, 166D, 166F, 166G, 166E, 266 | 17,765.5             |

Contd...

| S. No.       | State                | National Highway No.  | Total Length (in km) |
|--------------|----------------------|---|----------------------|
| 18           | Manipur              | 2, 102, 102A, 102B, 102C, 202, 702A, 29, 129A, 37, 137, 137A  | 1,750.3              |
| 19           | Meghalaya            | 6, 106, 206, 217, 127B  | 1,155.6              |
| 20           | Mizoram              | 2, 102B, 302, 502, 502A, 6, 306, 306A, 108  | 1,422.5              |
| 21           | Nagaland             | 2, 202, 702, 702A, 702B, 702D, 29, 129, 129A, 229, 329A   | 1,547.7              |
| 22           | Odisha               | 16 G.Q., 316, 316A, 516, 516A, 18, 20, 220, 520, 26, 126, 326, 326A, 130C, 130CD, 143, 49, 149, 53, 153B, 353, 55, 57, 157, 59, 63  | 5,430.7              |
| 23           | Puducherry           | 32, 332   | 26.9                 |
| 24           | Punjab               | 3, 503, 503A, 703, 703A, 703B, 5, 105B, 205, 205A, 7, 9, 44, 344, 344A, 344B, 148B, 148BB, 348E, 52, 152, 152A, 54, 154, 154A, 254, 354, 754  | 3,269.5              |
| 25           | Rajasthan            | 709, 11, 311, 911, 919, 921, 23, 123, 25, 125, 325, 925, 925A, 27, 927A, 44, 48, 148, 148B, 148D, 248, 248A, 448, 52, 552, 752, 54, 954, 56, 156, 58, 158, 458, 758, 62, 162, 162A, 68, 168, 168A, 70   | 8,916.0              |
| 26           | Sikkim               | 10, 310, 310A, 510, 710, 717A, 717B   | 463.0                |
| 27           | Tamil Nadu           | 16 G.Q., 716, 716A, 716B, 32, 32 Ext., 132, 132B, 332, 332A, 532, 36, 136, 136, 136B, 336, 536, 38, 138, 338, 40, 42, 44 N.S., 544, 544H, 744, 744A, 844, 944, 48 G.Q., 648, 948, 66, 75, 77, 79, 179A, 179B, 179D, 81, 181, 381, 381A, 381B, 83, 183, 383, 85, 785, 87   | 6,741.5              |
| 28           | Telangana            | 30, 44, 150, 353B, 353C, 61, 161, 161B, 161AA, 161BB, 63, 163, 363, 563, 65, 365, 365A, 365B, 365BB, 565, 765, 765D, 167, 167 extn.   | 3,795.5              |
| 29           | Tripura              | 8, 108, 108A, 108 B, 208, 208A  | 853.8                |
| 31           | Uttar Pradesh        | NE2, 307, 9, 509, 709A, 709AD, 709B, 19, 219, 319D, 519, 719, 21, 321, 123, 24, 124C, 27, 227A, 727, 727A, 727BB, 727B, 727G, 727H, 927, 28, 128, 128A, 128B, 128C, 328, 328A, 30, 230, 330, 330A, 330B, 330D, 530, 730C, 730S, 530B, 730B, 730H, 730, 730A, 31, 731, 731A, 731AG, 731K, 135, 335, 931, 931A, 34, 234, 334, 334C, 334B, 334D, 734, 35, 135C, 135A, 135BB, 135B, 39, 339, 539, 44, 344, 552 Ext. | 11,376.3             |
| 30           | Uttarakhand          | 7, 107, 107A, 507, 307, 707, 707A, 9, 109, 309, 309A, 309B, 30, 34, 134, 334, 334A, 534, 734, 344   | 2,949.3              |
| 32           | West Bengal          | 10, 110, 12, 112, 512, 14, 114, 114A, 314, 16, 116, 116B, 117, 317A, 717, 717A, 18, 19, 419, 27, 327B, 28, 29, 30, 31, 31, 131A, 33, 133A, 49   | 3,073.9              |
| 33           | A & N Islands        | 4   | 330.7                |
| 34           | Dadra & Nagar Haveli | 848A  | 31.0                 |
| 35           | Daman & Diu          | 848B, 251   | 22.0                 |
| <b>Total</b> |                      |   | <b>126,349.9</b>     |



## TERMS AND DEFINITIONS

| S. No.                                | Terms             | Definitions  |
|---------------------------------------|-------------------|--|
| <b>A. ROADS</b>                       |                   |  |
| 1                                     | Track             | A path on the land much trodden by persons and animals.  |
| 2                                     | Cart Track        | A land way for use by carts.   |
| 3                                     | Road              | A way on land with a right of way for the public.  |
| 4                                     | Urban Road        | A road within the limits of the area of Municipality, Military Cantonment, Port or Railway Authority.  |
| 5                                     | Project Road      | A road within the limits of the area of a development project of a public authority for the exploitation of resources such as forest, irrigation, electricity, coal, sugarcane, steel, etc.  |
| <b>B. HIGHWAY CLASSES BY FUNCTION</b> |                   |  |
| 1                                     | Expressways       | Expressways offer superior highway facility with higher specifications. It provides for more lanes, better surface, divided carriageway, controlled access grade separations at cross-roads and fencing etc. Expressways permits only fast moving vehicles and are meant to carry through traffic. The Expressway may be owned by the Central Government or State Government depending upon whether the route is a National Highway or a State Road. |
| 2                                     | National Highways | The arterial roads of the country for inter-state movements of goods and passengers. They traverse the length and width of the country connecting the National and State capitals, major ports and rail junctions and link up with border roads and foreign highways.  |
| 3                                     | State Highways    | The arterial roads in a State for inter-district movements. They traverse the length and width of a state connecting the state capital, district headquarters and important towns and cities and link up with the National Highways and adjacent State Highways.   |
| 4                                     | District Roads    | The branch roads of the State and National Highways to serve as the main roads for intra-district movements. They traverse the length and breadth of a district to connect the area of production and marketing in the district to one another and to the National Highways.   |
| 5                                     | Village Roads     | These roads serve as the feeder roads as well as the roads for inter village movements. They pass through rural areas connecting the village to one another and to the nearest road of higher category viz. District Roads, State Highways, National Highways, etc.  |

*Contd...*

## Contd... TERMS AND DEFINITIONS

| S. No.                             | Terms                            | Definitions  |
|------------------------------------|----------------------------------|--|
| <b>C. HIGHWAY CLASSES BY WIDTH</b> |                                  |  |
| 1                                  | Below Standard Single Lane(BSSL) | Surfaced roads having clear carriageway width of below 3.75 M.   |
| 2                                  | Standard Single Lane(SSL)        | Surfaced roads having clear carriageway width between 3.75 M and below 7.0 M.  |
| 3                                  | Standard Double Lane (SDL)       | Surfaced roads having clear carriageway width between 7.0 M and below 10.5 M.  |
| 4                                  | Standard Multi Lane (SML)        | Surfaced roads having clear carriageway width of 10.5 M and above.   |
| <b>D. ROAD SURFACE</b>             |                                  |  |
| 1                                  | Bitumen or Tar Macadam           | A type of construction in which the fragments of coarse aggregate are bound together by bitumen applied either premix or grouting method.  |
| 2                                  | Bitumen Concrete Surfacing       | A type of construction in which coarse and fine mineral aggregates are mixed with bitumen and laid not to the desired thickness.   |
| 3                                  | Black Top Surface                | The surface of roads made with bitumen as a binder.  |
| 4                                  | Brick Paving                     | A paving composed of bricks laid in regular courses.   |
| 5                                  | Cement Bound Macadam             | A surface in which a matrix of a cement sand mixture is interposed between two layers of road metal spread on the road and the whole mass watered and consolidated so that the matter works into the interstices of the road metal to produce a compact mass.  |
| 6                                  | Cement Concrete                  | A surface obtained by placing and consolidating cement concrete to required thickness.   |
| 7                                  | Earth Road                       | A road with the carriageway composed of natural soil.  |
| 8                                  | Gravel Road                      | A road with the carriageway composed of a consolidated layer of gravel.  |
| 9                                  | Water Bound Macadam              | A type of surfacing in which stone fragments are first inter locked by rolling and then bound with smaller stone gravel etc. which enforced into the intersection by brimming, watering and rolling.   |
| 10                                 | Motorable                        | (i) For Plain Areas: Surfaced or unsurfaced road of minimum 3.0 M Carriageway width is motorable.<br>(ii) For Hilly Areas: Surfaced or unsurfaced road of minimum 3.0 M Carriageway width having no horizontal curve of radii less than 14 M and grade not steeper than 7% is motorable. A bridle path is non motorable. |



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