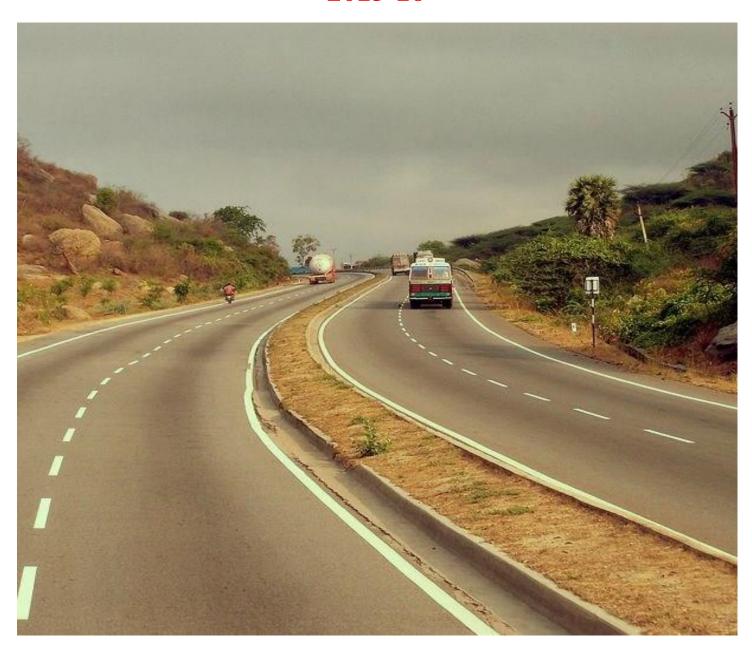
BASIC ROAD STATISTICS OF INDIA 2015-16





GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT AND HIGHWAYS
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Foreword

A good road network is a critical infrastructure requirement for rapid growth of the economy – providing connectivity to remote areas; opening up of backward regions and ensuring accessibility to markets, trade and investment. Increasingly, roads are not looked at in isolation, but as part of an integrated multi-modal system of transport establishing links with airports, railway stations, ports and logistic hubs.

India's road network length was 56.03 lakh km as on 31.03.2016. The country'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 responsible for the development & maintenance of road network of national highways. There has been consistent increase in the budgetary allocations for construction & maintenance of roads in the recent years. Further, through a pro-active sector policy - leveraging both public and private funding; increased assistance to State PWDs; changes in delegation of authorities; enhanced use of e-technology; continuous and systematic monitoring, etc., efforts are being made to hasten the pace of construction of highways.

The Ministry has undertaken a detailed review of NH network during the last two-three years, with a view to developing the road connectivity to Border areas, development of coastal roads including road connectivity for minor ports, development & improvement in the efficiency of national corridors, economic corridors and feeder routes under the Bharatmala Pariyojana.

The present issue of "Basic Road Statistics of India" contains comprehensive information on the total road network of the country as on 31st March 2016. In view of the importance of the road network of a country, disaggregated State/ UT-wise data, on each of the categories of roads constructed by different agencies is essential. The data would assist in policy, planning and investment decisions.

I hope this publication would be useful to administrators, policy makers and the academia, especially those interested in infrastructure development. I gratefully acknowledge the cooperation of different agencies involved in road construction. Contribution of the officers and staff of the Transport Research Wing involved in the work related to this publication is deeply appreciated.

(Yudhvir Singh Malik)

New Delhi December, 2017



भारत सरकार
Government of India
सङ्क परिवहन एवं राजमार्ग मंत्रालय
Ministry of Road Transport & Highways
परिवहन अनुसंधान विभाग
(Transport Research Wing)
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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 'Basic Road Statistics of India, 2015-16 provides detailed State/UT-wise (by type of surface) data on various categories of roads at national, state, district and local levels (municipal and panchayat). As per the report the stock of India's road network was 56.03 lakh kms as on 31.03.2016.

In addition to above, a write up on recent initiatives taken by Ministry of Road Transport & Highways for expansion in road network; data on plan outlay and expenditure incurred by the Ministry and a chapter on international comparison of road networks has been provided in this publication. The detailed information is presented in nine sections of the publication.

I would like to thank all the departments and agencies of Central and State governments for furnishing data to the Transport Research Wing. The officers and staff of the Transport Research Wing deserve special mention, for the considerable effort put in by them, leading to the finalisation of the publication.

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

Citi Sacena (Kirti Saxena)

New Delhi December, 2017

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EXECUTIVE SUMMARY

A good road network is a critical infrastructure requirement for rapid growth of the economy. Roads should not be looked at in isolation but as part of an integrated multi-model system of transport.

- 2. Various construction programmes for different classes of roads over the past two-and-a-half decades have yielded a significant expansion in network size in India. Efforts are being made for a balanced development of road network (primary, secondary and tertiary systems). Further, through recent initiatives, the development of the primary road network is being tied up with the railways' dedicated freight corridors/other segments of rail network, connectivity with ports, airports, logistic hubs, major tourist centres and linkage with neighbouring countries.
- 3. Development & maintenance of roads are undertaken by various agencies of both Central and State Governments. The main agencies are: State PWDs, National Highways Authority of India, National Highway Infrastructure Development Corporation, Border Roads Organisation, National Rural Development Agency of Ministry of Rural Development, State Forest Departments, Railways, Port Trusts, Municipal Corporations, PSUs etc.
- 4. The Ministry of Road Transport & Highways is primarily responsible for development and maintenance of National Highways. It has been making continuous efforts, through a pro-active sector policy, leveraging both public and private investment, to expand and upgrade the road network specially that of National Highways, which has increased from a length of 70,934 km in 2010-11 to 1,01,011 km as on 31.03.2016.
- 5. India's road network **as on 31.03.2016** was **56.03 lakh km**. The break-up category-wise is given below:

Category of Road	Length ofRoads (km)
National Highways (NHs)	1,01,011
State Highways (SHs)	1,76,166
District Roads	5,61,940
Rural Roads	39,35,337
Urban Roads	5,09,730
Project Roads	3,19,109
Total	56,03,293

- 6. As on 31st March 2016, India's road density at 170 km of roads per 100 sq km was higher than that of Japan (0.91 km/ sq km), USA (0.68 km/ sq km), China (0.47 km/ sq. km), Brazil (0.18 km/sq.km) and Russian Federation (0.08 km/ sq km).
- 7. Adjusted for its large population, India has approximately 4.63 km of roads per 1000 people (Census 2011).
- 8. The paved/surfaced road length in India was 62.5 per cent of the total road length which was lower as compared to United Kingdom (100.00), Korea (84.9) and Russian Federation (70.60). NHs in India, which accounted for 1.76 % of the total length as on 31st March, 2016 was much lower than that of some of the developed countries of the world such as Japan, Korea Republic, UK and Brazil.

Section - 1

Overview of Road Network in India

- 1.1 As on 31.3.2016 the existing stock of road length in India was 56.03 lakh kms. The road network of the country consists of National Highways (NH), State Highways (SH) District Roads, Rural Roads, Urban Roads and Project Roads. The development and maintenance of roads in India are undertaken by various agencies of both Central and State governments. State PWDs, National Highways Authority of India Ltd., Border Roads Organisation, National Highway Infrastructure Development Corporation Ltd. (NHIDCL), National Rural Road Development Agency (NRRDA) are the main agencies. The Ministry of Road Transport & Highways is primarily responsible for the development and maintenance of National Highways. All roads other than the National Highways are with the State Governments.
- 1.2 Table 1.1 shows the progress of road length under different categories during the period 31st March, 1951 to 31st March, 2016.

Table 1.1: Road Network by Categories (in kilometres) - 1950-51 to 2015-16

Roads Urban Roads	(51.61)	(37.60) 46361 (8.84)	72120 (7.88)	(42.34) 123120 (8.29)	1260430 (54.16) 186799 (8.03)	(58.46) 252001 (7.47)	(58.80) 411679 (8.80)	(61.16) 457467 (8.47)	(60.99) 467106 (8.54)	509730 (9.10)
District Roads	173723 (43.44) 206408	257125 (49.02)	276833 (30.26)	421895 (28.40)	509435 (21.89)	736001 (21.82)	998895 (21.36) 2749804	1082267 (20.03)	1101178 (20.12)	561940 (10.03)
State Highways	٨	۸	56765 (6.20)	94359 (6.35)	127311 (5.47)	132100 (3.92)	163898 (3.50)	170818 (3.16)	167109 (3.05)	176166 (3.14)
National Highways	19811 (4.95)	23798 (4.54)	23838 (2.61)	31671 (2.13)	33650 (1.45)	57737 (1.71)	70934 (1.52)	91287 (1.69)	97991 (1.79)	101011 (1.80)
Road Category	1950-51	1960- 61	1970- 71	1980-81	1990-91	2000-01	2010-11	2013-14	2014-15	2015-16

Note: Total includes 9 lakh Km of Rural roads constructed under JawaharRozgarYojana)

Figures in parenthesis indicate percent to total road length.

1.3 The total road length of the country increased significantly from 3.99 lakh km in 1951 to 56.03 lakh km in 2016, growing at a Compound Annual Growth Rate (CAGR) of 4.1% during the year 1951to 2016. The long run trend of growth in road length for the period 1951-2016 is depicted in Chart 1.1 and CAGR for 1951-2016, along with decadal CAGRs, are given in Table 1.2.

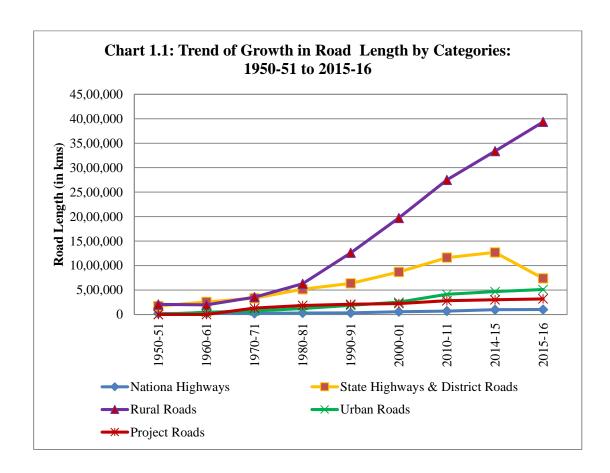


Table 1.2CAGR (in %) of Road Networks -1951 to 2016

Period	NHs	SHs & District Roads	Rural Roads	Urban Roads	Project Roads	Total
2016/1951	2.5	3.2	4.4			4.1
1961/1951	1.9	4	-0.5			2.7
1971/1961	0	2.6	6	4.5		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	*	*	5.7	2.0	3.7

^{*} Note: During the year 2015-16 Other PWD Road (OPWD) category 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

1.4 Decadal analysis

During the decade, 2005-06 to 2015-16, the highest CAGR was that of urban roads (5.7%) followed by rural roads (5.5%), NH (4.3%) and project roads (2.0%). As seen from Table 1.1 while the length of national Highways was 70,934 kms in 2010-2011 it increased rapidly to 101011 kms in 2015-16. The proactive policy steps, leveraging of private and public Investment, innovative financing models, have resulted in increase in pace of NH development in recent years. The Table 1.3 on Investment in National Highways shows that the combined public and private investment increased by over 7 times during the decade 2005-06 to 2015-16. The CAGR of Investment during the period 2005-06 to 2015-16 is 21.52%. The details of allocation of fund and expenditure is at **Annexure 8.1**

Table 1.3 Investment in Highways in both Public and private 2005-06 to 2016-17 (in Crores)

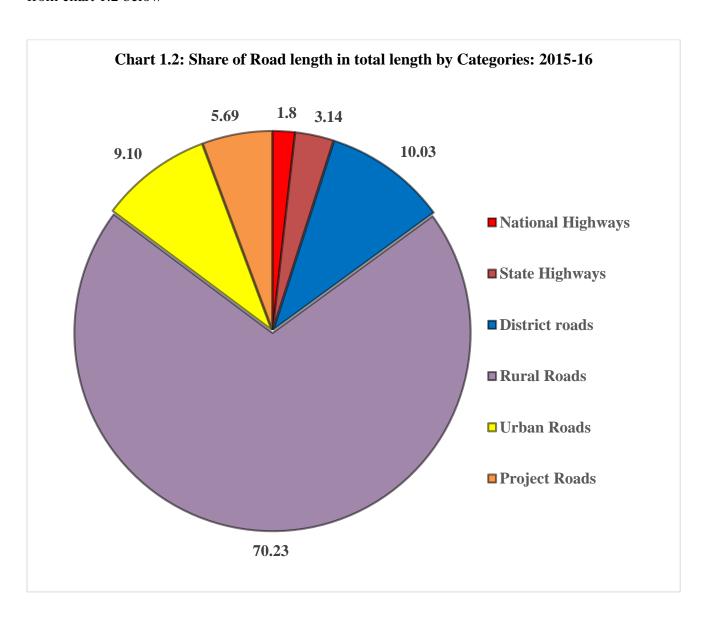
			Expenditure	
Sl. No.	Year	Private Sector Investment	Public Sector Investment	Total
(1)	(2)	(3)	(4)	(9)
1	2005-06	649.08(4.60)	13,446.79(95.40)	14,095.87
2	2006-07	1,578.28(8.92)	16,116.59(91.08)	17,694.87
3	2007-08	7,062.40(30.25)	16,281.22(69.75)	23,343.62
4	2008-09	8,184.73(29.06)	19,983.24(70.94)	28,167.97
5	2009-10	8,572.54(30.36)	19,661.87(69.64)	28,234.41
6	2010-11	15,354.37(36.13)	27,140.50(63.87)	42,494.87
7	2011-12	25,998.56(41.97)	35,951.71(58.03)	61,950.27
8	2012-13	20,304.66(42.70)	27,245.53(57.30)	47,550.19
9	2013-14	22,515.05(38.07)	36,619.48(61.93)	59,134.53
10	2014-15	19,232.44(35.01)	35,702.27(64.99)	54,934.71
11	2015-16	29,770.00(30.07)	69,218.06(69.93)	98,988.06
			CAGR(2015-2016)	21.52

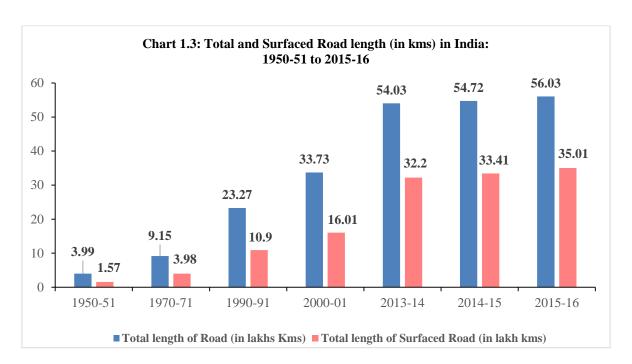
Source: Calculation based on the Expenditure statement of Roads Wing (Annexure 8.1 at the end of the Report)

1.5 Along with the increase in the total road length the paved/ surfaced road length too increased. The latter grew from 1.57 lakh kms as on 31st March 1951 to 35.01 lakh kms as on 31st March 2016. Surfaced roads formed 39.26% of the total road length as on 31st March, 1951 which increased to 62.5% as on 31st March, 2016

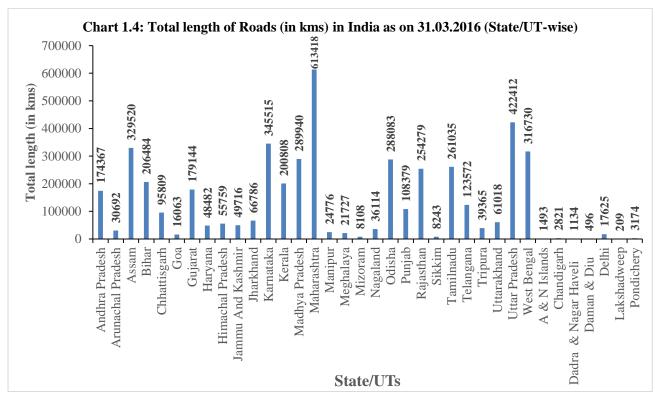
Details of Road Length and Road Categories - 2015-16

1.6As seen from Table 1.1, the share of rural roads was the highest in the total road length (70.23%) followed by District roads (10.03%) and Urban roads (9.10%). This can be seen from chart 1.2 below





- 1.7 The State wise break up shows that Maharashtra (613418 Km) accounted for the largest share (13.04%) in total network of roads for the year up to the period 31st March 2016 excluding JRY roads, followed by Uttar Pradesh (8.98%), Karnataka (7.35%), Assam (7.01%) and West Bengal (6.73%)(Chart 1.4). The State wise details are at Annexure 1.3
- 1.8 The five states with the largest road networks (excluding Jawahar Rozgar Yojana roads), viz. Maharashtra, Uttar Pradesh, Karnataka, Assam and West Bengal accounted for about a share of 43.11% of total road length of the country, as given in Chart 1.4

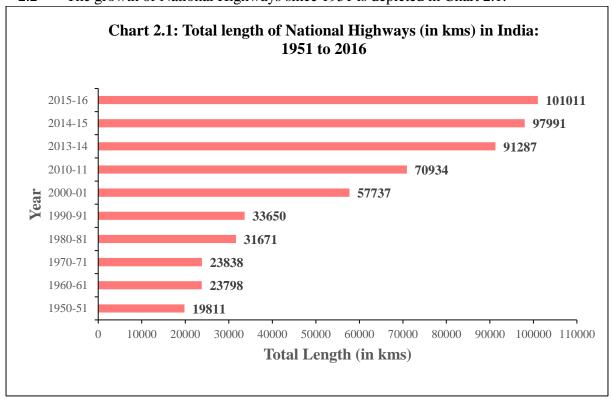


Section – 2

National Highways in India

2.1 National Highways constitute the primary system of road transportation in India. These are the main highways running through 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 neighboring countries. Ministry of Road Transport & Highways, Government of India, is responsible for the development and maintenance of NHs in India. The list of State-wise National Highways in the country as on 31.03.2016 is at Table 2.2 at the end of the Chapter.

2.2 The growth of National Highways since 1951 is depicted in Chart 2.1.



- 2.3 Totalling at 101011 kms. as on 31.03.2016, National Highways comprised of 1.80 % of total road network in the country. All NHs are surfaced.
- As on 31st March 2016, two-lane NHs constituted the largest share of NHs, i.e. 55.05% in the total length of NHs. This was followed by four lane & above NHs (comprising of 24.46% of the total length of NH). The share of less than two lane NHs during 2015-16 was 20.49(Table 2.1).

Table 2.1: Lane-wise Break-up of National Highways - 2014-2015; &2015-16

Number of Lanes	As on 31st March, 2015	As on 31st March, 2016
Less than Two Lane	31,089	20,703
	(31.73)	(20.49)
Two -Lane	45,701	55,603
	(46.64)	(55.05)
Four- Lane & Above	21,201	24,705
	(21.63)	(24.46)
Total	97,991	1,01,011
	(100)	(100)

(Figures in parentheses are proportion of total length of NHs)

- 2.5 From the Table 2.1, it is seen that the length of NHs was 97991 km as on 31.03.2015. It increased by 3.08% to 101011 km as on 31.3.2016. Compared to 2014-15 the less than two lane NH have decreased in 2015-16. However, there has been 21.6% increase in the two lane NH and 16.53% increase in the four lane above NH over previous year.
- 2.6 Uttar Pradesh accounted for the largest share (8.4%) in the total length of NHs as on 31 st March 2016, followed by Rajasthan (7.8%), Maharashtra (7.4%), Karnataka (6.4%) and Andhra Pradesh (5.4%). These five States accounted for about 35.4% of the total road length of NHs. This is illustrated in chart 2.2. [State/UT wise details are at Annexures 2.1 and 2.2].

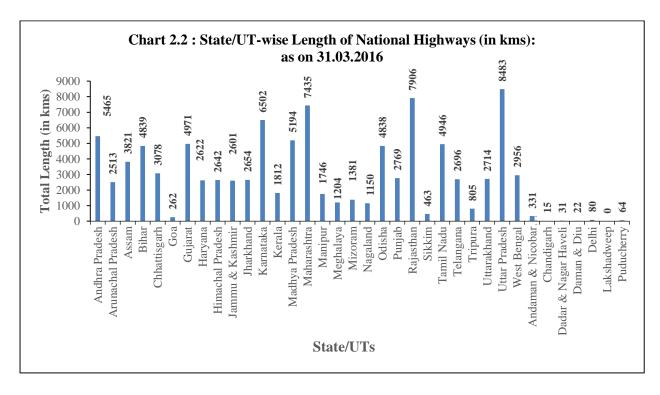


Table 2.2
LIST OF STATE-WISE NATIONAL HIGHWAYS IN THE COUNTRY AS ON 31.03.2016

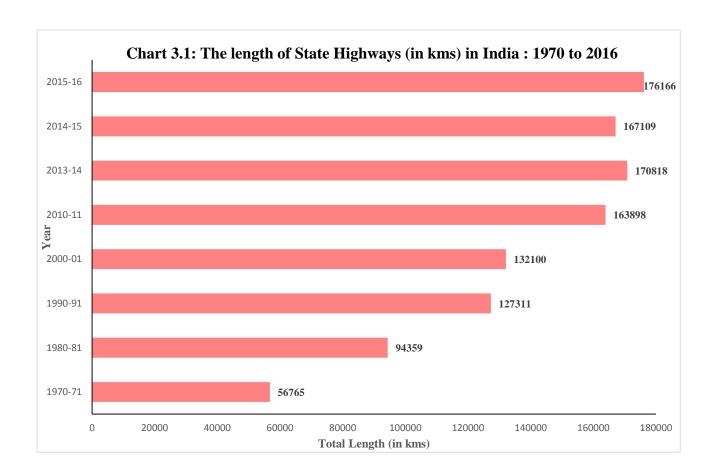
Sl. No.	Name of State	National Highway No.	Total Length (in km)
1	Andhra Pradesh	4, 5, 7, 9, 16, 18, 18A, 42 New, 43, 63, 67Ext. New, 150 New,167 New, 202, 205, 214, 214A, 216, 219, 221, 222, 234, 326, 326A, 67 New,71 New, 161 New, 340 New, 340C New, 353 New, 363 New, 365 New, 544D New, 563 New, 565 New,765 New	5,465
2	Arunachal Pradesh	52, 52A, 153, 229, 52B Ext, 37 Ext., 315A, 713 New, 513 New, 313 New, 113 New & 713A New	2,513
3	Assam	6 New, 31, 31B, 31C, 36, 37, 37A, 37E, 38, 39, 44, 51, 52, 52A, 52B, 53, 54, 61, 62, 117A New, 127B New, 127E New, 151,152, 153, 154, 315A New, 127C New & 127D New, 208A New, 329 New, 427 New, 627 New, 702 New, 702B New, 702C New 702D & 715A New	3,821
4	Bihar	2, 2C, 19, 20Ext New 28, 28A, 28B, 30, 30A, 31, 57, 57A, 77, 80, 81, 82, 83, 84, 85, 98, 99, 101, 102, 103, 104, 105, 106, 107, 110, 120 New, 122A New, 131A New, 133 New, 133B New, 219 New, 227 A New, 327A New, 327 Ext. New, 333 New, 333A New, 333B New, 527A New, 527C New, 727 A New, 766C, & 120 New	4,839
5	Chandigarh	21	15
6	Chhattisgarh	6, 12A, 16, 43, 78, 111, 130A New, 130B New, 130C New, 130D New, 149B New, 163A New, 200, 202, 216, 217, 221, 343 New, 930New	3,078
7	Delhi	1, 2, 8, 10, 24 & 236	80
8	Goa	4A, 17, 17A & 17B	262
9	Gujarat	NE-I, 6, 8, 8A, 8B, 8D, 8E, 14, 15, 56, 58 New, 58 Ext New, 59, 113 228, 251 New, 753B New, 848 & 848A New, 848B New, 341 New, 68Ext. New, 147A New, 168 New, 168A New, 351 New, 927D New & 953 New	4,971
10	Haryana	1, 2, 8, 10, 11 New, 21A, 22, 54 New, 64, 65, 71, 71A, 72, 73, 73A, 71B, 148BNew, 236, 248 A New, 254 New, 334B New, 352A, 444A New, 703 New, 709 Ext New, 709A New & NE-II	2,622
11	Himachal Pradesh	1A, 3 New, 20, 20A, 21, 21A, 22, 70, 72, 72B, 88, 73A, 154A New, 305 New, 503 New, 503 A New, 503 Ext. New, 505 New, 505A New705 New, 907 A New	2,642
12	Jammu & Kashmir	1A, 1B, 1C, 1D, 3 New, 144 New, 144A New, 301 New, 444 New, 501 New, 701 New, 244 New	2,601
13	Jharkhand	2, 6, 20 Ext New, 23, 31, 32, 33, 43 New, 75, 78, 80, 98, 99, 100, 114A New, 133 New, 133A New, 133B, 143 New, 143A New, 220 New, 333 New, 333A New, 343 New & 419 New	2,654
14	Karnataka	4, 4A, 7, 9, 13, 17, 48, 50 New, 63, 67, 67New, 150, 150 Ext. New, 150A New, 167 New, 169A New, 173 New, 206, 207,209, 212, 218, 234, 275 New, 367 New, 766C	6,502
15	Kerala	17, 47, 47A, 47C, 49, 183A New, 185 New, 208, 212, 213, & 220	1,812
16	Madhya Pradesh	3, 7, 12, 12A, 25, 26, 26A, 26B, 27, 34 New, 56 New, 59, 59A, 69, 69A, 75, 76, 78, 86, 92, 927A New & 339B	5,194
17	Maharashtra	3, 4, 4C, 6, 7, 8, 9, 13, 16, 17, 26B, 50, 50New, 69, 150 Ext. New, 161 New, 204, 211, 222, 348 New, 848 New, 160 New, 166 New, 166A New, 339B New, 348 New, 348A New, 353C New, 353D New, 353E New, 361 New, 363 New, 547E New, 548 New, 753 New, 753A New, 753B New, 848A, 930 New & 953 New, 965 New	7,435
18	Manipur	39, 53, 102 New, 102A New, 102B New, 102 C New, 129A new, 108A New, 129 New, 137 New, 137A New, 150, 155, 702A New	1,746
19	Meghalaya	40, 44, 51, 62 & 127B New	1,204
20	Mizoram	6 New, 44A, 54, 54A, 54B, 102B New, 150, 154, 302 New, 306 A New & 502A	1,381

		Total	1,01,010
35	Daman & Diu	848B New & 251 New	22
34	Dadra & Nagar Haveli	848A New	31
2.1	Nicobar Islands		24
33	Andaman &	4 New	331
32	West Bengal	2, 2B, 6, 10, 31, 31A, 31C, 31D, 32, 34, 35, 41, 55, 60, 60A, 80, 81, 114A New, 116B New, 117, 131A, 133A New, 317A, 327B, 419 New, 512 New & 717.	2,956
31	Uttar Pradesh	2, 2A, 3, 123 New (3A Old), 7, 11, 12A, 19, 24, 24A, 24B, 25, 25A, 26, 27, 28, 28B, 28C, 29, 34 New, 56, 56A, 56B, 58, 72A, 73, 74, 75, 76, 86, 87, 91, 91A, 92, 93, 96, 97, 119, 219 New, 227 A New, 231, 232, 232A, 233, 235, 330, 330A New, 330 B New, 334 New, 334B New, 334C New, 709 A, 727 A New, 730 New, 730A New, 731 A New, 931 New, 931A New & NE-II	8,483
30	Uttarakhand	9 new,34 New, '58, 72, 72A, 72B,73, 74, 87, 94,107A New, 108, 109, 123, 119, 121, 125, 309A New, 309B New, 334A & 707A New	2,714
29	Telangana	7, 9, 16 202, 221, 216A New, 222, 326 New, 167 New, 150 New, 363 New, 365 New, 565 New, 161, 765 New, 50 New, 563 New & 365A New	2,636
28	Tripura	210, 219, 220, 226, 226Ext., 227, 230, 234, 381 New, & 532 New 44, 44A, 108A,208 New, 208A New, & 108B New	805
27	Tamil Nadu	4, 5, 7, 7A, 45, 45A, 45B, 45C, 46, 47, 47B, 49, 66, 67, 68, 205, 207, 208, 209,	5,006
26	Sikkim	New, 709 Ext. New, 927A New, 31A, 310, 310A New, 510 New, 563 New, 710 New, 717A New, 717B New	463
25	Rajasthan	3, 11New, 123 New (3A Old), 8, 11, 11A, 11B, 11C, 12, 14, 15, 25 Ext. New, 54 New, 65, 458 New & 65A Old, 71B, 76, 58 Ext New & 76A Old, 758 New & 76B Old, 79, 79A New, 89, 90, 113, 112, 114, 116,148B New,148D New & 116A Old, 158 New, 162A New, 162 Ext. New, 168 New, 168A New, 248A New, 325	7,906
24	Punjab	1, 1A, 10, 15, 20, 21, 22, 64, 70, 71, 72, 95, 103 A New, 154A, 205A New, 254 New, 344A New, 344B New, 503 Ext. New , 503A New, 703 New 703A New, 754 New & 148B New	2,769
23	Puducherry	45A & 66	64
22	Odisha	5, 5A, 6, 20 Ext, 23, 42, 43, 55 Ext New, 60, 75, 130C New, 153B New, 157 New, 200, 201, 203, 203A, 215, 217, 220 New, 224, 326 New & 326 A New	4,838
21	Nagaland	New 36, 39, 61, 129 New, 150, 155, 702 New, 702A New & 702B New, 702D	1,150

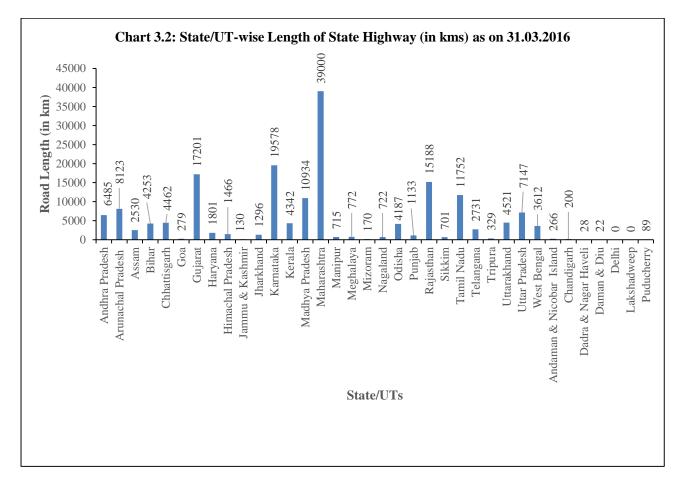
Section -3

State Highways in India

3.1 State Highways together with major district roads constitute the secondary system of road transportation in the country. These roads are administered and financed by State Governments. Through the State Public Works Departments (PWDs). The State Highways provide links with NHs, district headquarters of State, important towns, tourist centres and minor ports. The growth of SH since 1970-71 is depicted in Chart 3.1



3.2 The total length of State Highways as on 31st March, 2016 increased to 1,76,166 kms as against 1,67,109 kms as on 31st March, 2015. As on 31st March, 2016, around 96.63% of SH roads were surfaced out of total length of State Highways. Out of total length of surfaced SHs, Bituminous Top (BT) and Cement Concrete (CC) roads accounted for about 98.50% and the remaining 1.5% were Water Bound Macadam (WBM) roads. The detailed break up State/UT wise by type of surface is at Annexure 3.2



Note: Arunachal Pradesh has not classified its PWD roads into State Highways and District Roads. The total length of PWD Roads of 8123 kms. has been reflected under State Highways.

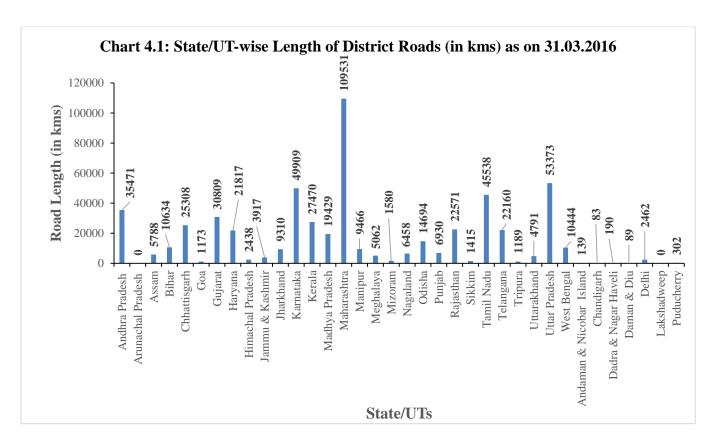
3.3 The State/UT-wise break-up of State Highways as on 31st March, 2016 shows that Maharashtra accounted for the largest share in the total length of SH roads (22.14%), followed by Karnataka (11.11%), Gujarat (9.76%), Rajasthan (8.62%) and Tamil Nadu (6.67%) (Chart 3.2). These five States accounted for about 58.31% of the total length of SHs.

State wise details are at Annexure 3.1 and 3.2.

Section – 4

District Roads in India

- 4.1 District Roads constructed & maintained by Public Works Department of States and UTs, together with the State Highways, account for the secondary system of road transportation in the country. District Roads comprising of Major District Roads (MDRs), Other District Roads (ODRs) 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 connecting areas of production with markets and enabling movements of raw materials and 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.
- 4.2 This issue of Basic Roads Statistics attempts to distinguish district roads from all other categories of roads under PWD. It marks a departure from the previous issues of the publication which clubbed all PWD roads, other than SHs in a category called OPWD (Other PWD).
- 4.3 The total length of District Roads as on 31st March, 2016 was approx. 561940 kms. of which 533493 km. of District Roads were surfaced comprising of 94.93 % of the total length (Annexure 4.1). State/UT-wise length of District Roads as on 31.03.2016 can be seen in Chart 4.1.
- Out of the total surfaced length of 533493 km of District roads, Bituminous Top (BT) and Cement Concrete (CC) roads accounted for about 95.3% and the remaining 4.7% were Water Bound Macadam (WBM) roads. The detailed break up State/UT wise by type of surface is at **Annexure 4.2.**



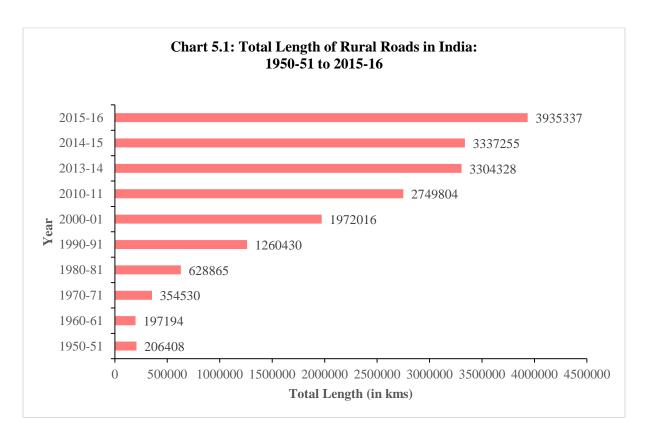
Note: Arunachal Pradesh has not classified PWD roads into State Highways and District Roads. The length of PWD roads in the State is reflected under State Highways.

4.5 The State/UT-wise break-up of District Roads as on 31st March, 2016 can be seen in Chart 4.1. Maharashtra accounted for the largest share in the total length of District roads (19.49%), followed by U.P (9.50%), Karnataka (8.88%), Tamil Nadu (8.10%) and Andhra Pradesh (6.31%). These five States accounted for about 52.29% of the total length of District Roads.

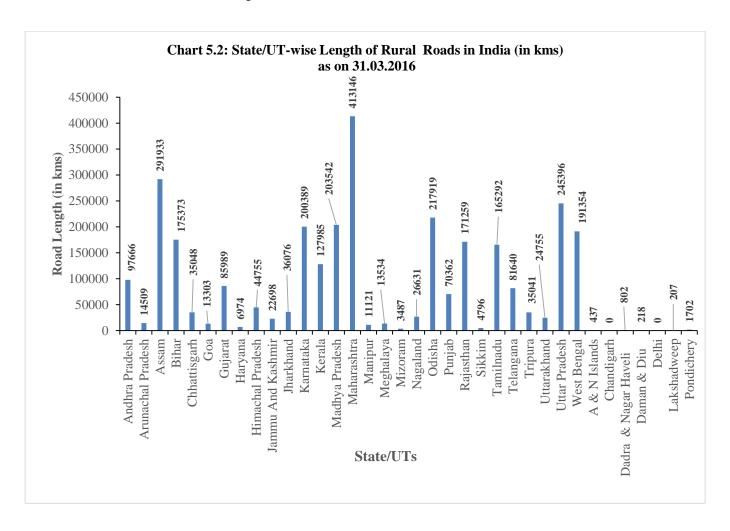
Section - 5

Rural Roads in India

- 5.1 Rural Roads connectivity is 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.
- 5.2 Rural roads consist of Panchayati Raj roads, (Zilla Parishad, Panchayat Samiti, Gram Panchayat); roads of the Pradhan Mantri Gram Sadak Yojana (PMGSY) and those constructed by the State PWDs.
- 5.3 The total length of Rural Roads as on 31st March, 2016, was 39,35,337 km comprising of the largest share in the total road network. Out of 39,35,337 km rural roads 18,60,573 kms of Panchyati Raj Roads were reported by the States/UT Panchayati Raj Departments; 6,26,377.42 kms of PMGSY Roads by the National Rural Road Development Agency (NRRDA) of Ministry of Rural Development; 5,48,387.01 km by the State PWDs and the remaining 9 lakhs kms (nine lakh kms) of roads were constructed under the erstwhile Jawahar Rozgar Yojana (JRY) in operation from 1990-1999. The PMGSY of the MoRD is a major scheme for providing all weather rural roads was launched in 2000. Details in **Annexures 5.1 to 5. 4.**
- 5.4 The growth of rural roads since 1950-51 is presented in Chart 5.1

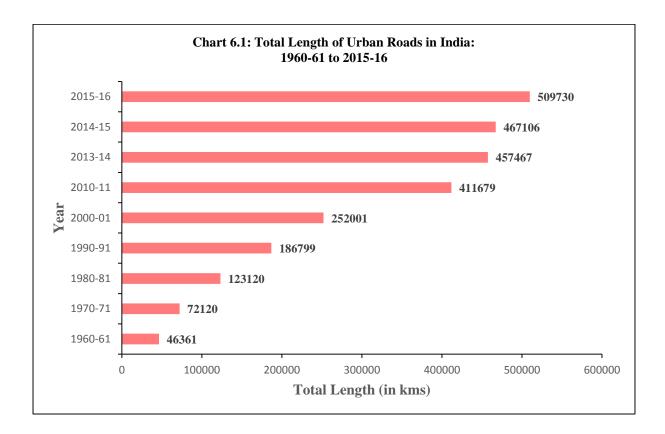


- 5.5 As on 31.03.2016, the percentage of surfaced rural roads to the total rural road length (excluding 9 lakh kms of JRY) was 66.15% (Annexure 5.1).
- 5.6 The State/UT-wise break-up of Rural Roads (excluding 9 lakh kms of JRY) shows that Maharashtra accounted for the largest share (13.6%) in 2015-16 followed by Assam (9.6%), Uttar Pradesh (8.1%), Odisha (7.2%), and Madhya Pradesh (6.7%) (Chart-5.2). These five States accounted for about 45.1% of the total length of Rural Roads. State-wise details are at **Annexures 5.1 to 5.4.**



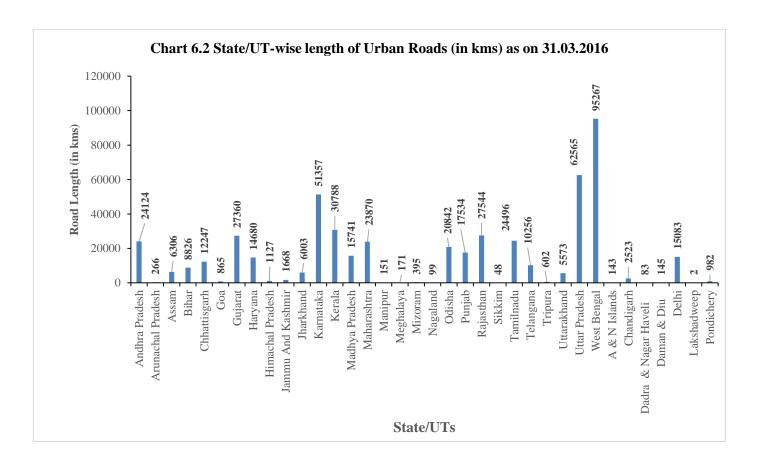
Section – 6 Urban Roads in India

- 6.1 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. The total length of urban roads increased from 467106 kms on 31.03.2015 to 509730 kms. on 31.03.2016. Among the category of roads, the share of urban roads in the total road length has increased from 8.54% in 2014-15 to 9.09% in 2015-16.
- The length of urban roads since 1960-61 is shown in Chart 6.1.



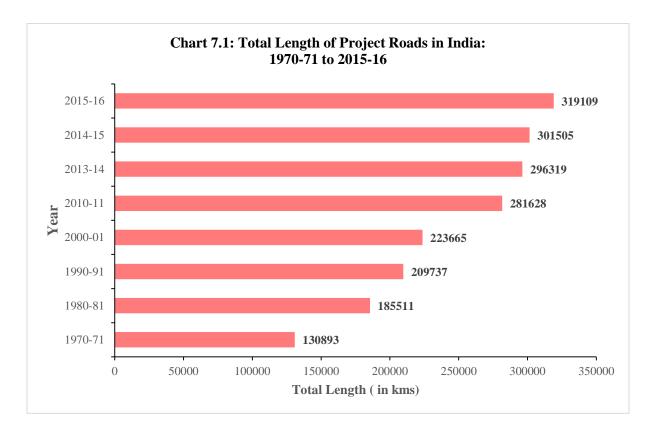
6.3 Within the category of Urban Roads as on 31.03.2016, municipal roads accounted for the highest share of 94.19%, followed by MES roads (3.35%), railway roads (2.26%) and major and minor ports roads 0.2%. While comparing the length of minor ports roads as on 31.03.2015 with that of 31.03.2016, it is seen that the length of minor ports increased by 24.91% from 289 km to 361 km. This is an impetus in the minor ports development. This publication has compiled length of roads in 70 minor ports (coming under the purview of 10 States/UT). Details of Urban Roads in Annexures 6.1 to 6.6).

- 6.4 The length of surfaced urban roads as on 31.03.2016 was 396458 km. which is 77.78% of the total length of urban roads.
- 6.5 The State/UT-wise break-up of Urban Roads shows that West Bengal accounted for the largest share (18.69%) in total length of Urban Roads as on 31st March 2016, followed by U.P. (12.27%), Karnataka (10.08%), Kerala (6.04%) and Rajasthan (5.40%) (Chart 6.2). These five States accounted for about 52.48% of the total length of Urban Roads.



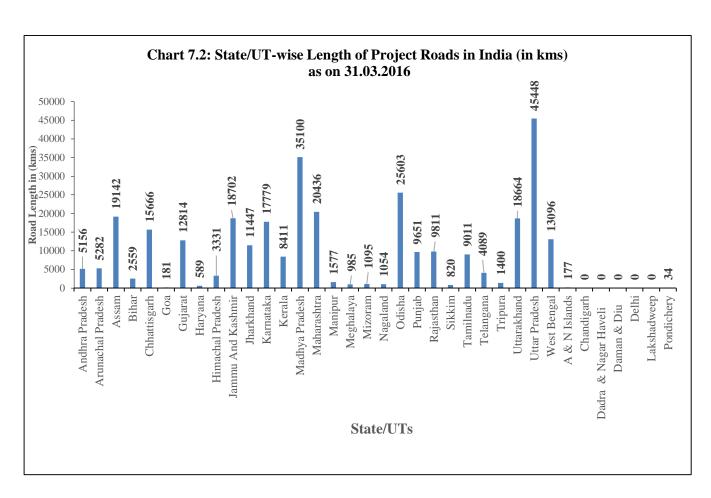
Section – 7 Project Roads in India

- 7.1 Project Roads largely include roads built/coming under the purview of Central and State Government agencies and departments. These 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).
- 7.2 The growth in the length of Project Roads since 1971 is depicted in Chart 7.1.



7.3 Out of the total length of Project Roads, as on 31st March, 2016 of 319109 km, approximately 54% is accounted by Forest Roads with a length of 171068 km. Since forest roads run through reserved forest areas and wild life sanctuaries, only a small share (21.53%) are surfaced. Of the surfaced length of forest roads of 36833 km, the larger share is of Water Bound Macadam roads (56.68%) and the remaining 43.71 are B.T./ C.C. roads.

- 7.4 In terms of total road length of Project Roads, the forest roads were followed by Irrigation Department Roads (31.31%), BRO Roads (6.69%) and remaining 8% accounted for project roads under purview of coal fields and mines of Coal India Ltd.; SAIL and NMDC; Sugarcane and Electricity Departments of States and UTs. Details in **Annexures 7.1 to 7.8.**
- 7.5 The State/UT-wise break-up of Project Roads shows that Uttar Pradesh accounted for the largest share (14.24%) in total length of Project Roads as on 31st March 2016, followed by Madhya Pradesh (10.10%), Odisha (8.02%), Maharashtra (6.40%) and Assam (5.91%). (Chart7.2). These five States accounted for about 44.58% of the total length of Project Roads.



Section – 8

International Comparison of Road Network

8.1 As on 31st March 2016, India's road density at 1.70 kms/sq.km of area was higher than that of Japan (0.91 km/ sq km), USA (0.68 km/ sq km), China (0.47 km/ sq. km), Brazil (0.18 km/sq.km) and Russian Federation (0.08 km/ sq km) (Table 8.1). The paved/surfaced road length in India was 61.03 per cent of the total road length which was lower as compared to United Kingdom, Korea and Russian Federation. National Highways (NHs) in India, accounted for 1.76 % of the total road network length as on 31st March 2016. Details in Table below.

Table 8.1: Major Road Indicators across Select Countries (2014)

Country	Road	Share of	Road Length in Kilometer					
	Density	Paved	Total	Total Motorways				
	(km/sq km)	Road	Highways		Highways			
		(%)						
1	2	3	4	5	6			
Brazil	0.18	13.6	15,66,415	NA	79,378			
					(5.08)			
China	0.47	NA	44,63,913	1,11,936	85,362			
				(2.51)	(1.91)			
France	1.95	100.0	10,71,176	11,662	8,901			
				(1.09)	(0.83)			
India	1.70	62.5	56,03,293	NA	1,01,011			
(2015-16)					(1.80)			
Japan	0.91	NA	3,45,828	8,428	51,750			
_				(2.44)	(14.96)			
Korea,	1.06	84.9	1,05,673	4,139	13,950			
Republic				(3.92)	(13.20)			
Russian	0.08	70.60	14,50,000	NA	NA			
Federation								
United	1.73	100.00	4,21,127	3,760	49,075			
Kingdom				(0.89)	(11.65)			
United States	0.68	65.90	67,02,178	76,335	27,066			
of America				(1.13)	(0.40)			

Sources: For India - Transport Research Wing, Ministry of Road Transport & Highways
For all other countries - 'World Road Statistics 2016', published by International Road Federation, Geneva.
Figures in columns 2,3 and 4 refer to the calendar year. For India, figures are for financial year. In columns 5 and 6, figures in parentheses indicate the percentage share of the category in total road length.
N.A.: Information not available.

Section - 9

Initiatives taken by Ministry of Road Transport and Highways for improving National Highways in the country

National Highways in India

The Ministry of Road Transport and Highways is primarily responsible for development and maintenance of National Highways through the National Highways Authority of India ltd. and the National Highways and Infrastructure Development Corporation Ltd.

- 2. Ministry has been taking efforts to expand and upgrade the network of National Highways. Through a pro-active sector policy, leveraging both public and private funding; changes of delegation of authorities for procurement, preparation, review and approval of DPRs; enhanced use of e-technology; continuous and systematic monitoring, etc., efforts are being made to hasten the pace of construction of highways.
- 3. There have been following constraints in the expansion and up gradation of National Highways:
 - (i) Availability of land
 - (ii) Significant increase in land acquisition costs
 - (iii) Lack of equity with developers
 - (iv) Too many bottlenecks and checkpoints on NHs- could adversely impact benefits of GST
 - (v) Higher cost of financing
 - (vi) Lesser Traffic growth than expected
 - (vii) Shortfall in funds for maintenance

4. Sector Policy:

- (a) Development and maintenance of road infrastructure is a key Government priority the sector has received strong budgetary support over the years.
- (b) MoRTH is now empowered to decide on mode of delivery of projects –PPP/EPC. It is authorized to appraise projects up to Rs. 1,000 crores both for PPP and EPC mode in place of earlier Rs. 500 crores.
- (c) Enhanced inter-Ministerial coordination: In order to 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.

- (d) Due to inadequate project preparation related to land acquisition, utility shifting, obtaining clearances and approval and shortcomings on part of concessionaires, a number of projects were languishing in the construction stage. MoRTH and NHAI are regularly monitoring languishing projects on NHs. Wherever feasible one-time fund infusion by NHAI is being done to revive languishing projects. For any languishing highway project in BOT Toll /Annuity mode that has achieved at least 50% physical completion and it is also established that infusion of moderate funding can quickly bring this project to completion, NHAI provides financial assistance to such a project. The assistance is on a loan basis at Bank rate +2%.
- (e) To expedite completion of delayed projects various steps have been taken which include streamlining of land acquisition & environment clearances, exit for equity investors, premium re-schedulement, close coordination with other Ministries, revamping of dispute resolution mechanism etc.
- 5. Details of Central Road Sector Outlay and Expenditure (including private sector investment) for the 12th Plan is in **Table 9.1.**
- 6. 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 9.2 gives State-wise allocation and expenditure of funds for the years from 2013-14 to 2016-17.

Table 9.1
Central Road Sector Outlay and Expenditure (including private sector investment) - (At Current Price) for 12th Plan
Amount in Rs. Crore

Sl.	Scheme	12th Plan	201	4-15	Amount in Rs. Crore 2015-16 2016-17				
No.		(2012-17)	RE Expd		RE	Expd	RE	Expd	
1	External Assistance	(2012 17)		Lapu		Zapu	142	Lapu	
	(a) Externally Aided (RW)		175.00	138.93	250.00	216.42	290.00	289.12	
	(b) Counterpart Fund (RW)		101.00	101.00	550.00	547.00	820.00	819.76	
	Total EAP	10,325.00	276.00	239.93	800.00	763.42	1,110.00	1,108.88	
2	NH (O)	29,085.00	4,881.59	4,836.10	6,491.06	6,335.44	19,860.00	19,326.46	
3	Works under BRDB including Strategic Roads under BRDB	3,500.00	292.00	268.79	0.00	0.00	0.00	0.00	
4	Other Charges & IT	40.00	7.00	3.71	6.50	5.42	8.00	6.93	
5	R&D & Training and Quality Assurance	100.00	7.00	4.65	68.20	40.90	83.00	16.79	
6	Charged Expd.	30.00	6.00	4.93	10.00	6.92	10.00	8.22	
7	NHAI (Investment) (Cess)	30,196.00	9,565.81	9,565.42	21,020.09	21,017.77	7,476.60	7,410.47	
8	Remittance of toll receipts (NHDP + non-NHDP)	27,200.00	5,448.00	5,448.00	6,500.00	6,500.00	7,500.00	7,500.00	
9	NHAI (ABS for J&K package, etc.)	8,342.00							
10	E&I for States from CRF	1,455.00	150.00	93.11	354.35	267.09	805.00	746.35	
10	E&I for UTs from CRF	1,433.00	0.00	0.00	1.00	0.00	0.00	0.00	
11	Rail Cum Road Bridge at Ganga, Munger (Bihar)	567.00							
12	Improvement of Duburi- Brahmanipal-Harichandanpur- Naranpur State Road in Odisha (POSCO)	20.00							
13	Special Packages								
(i)	SARDP-NE	25,400.00	3,000.00	2,843.33	4,900.00	4,803.07	4,520.00	4,460.67	
(ii)	LWE (including TSP) including Vijayawada-Ranchi Road	6,509.00	1,174.00	1,164.59	1,121.00	996.11	760.00	739.27	
(A)	Total (BS)	1,42,769.00	24,807.40	24,472.56	41,272.20	40,736.14	42,132.60	41,324.04	
(B)	IEBR / Borrowings by NHAI	64,834.00	7,611.11	3,343.40	42,694.50	23,281.00	59,279.00	33,118.00	
(C)	Grand Total	2,07,603.00	32,418.51	27,815.96	83,966.70	64,017.14	1,01,411.60	74,442.04	
	Private Sector Investments (Non-NHDP)	5,765.00							
	(i) Widening to 2-lanes (ii) 4-laning of NHs	5,765.00							
	Private sector Investments (NHDP)	2,08,421.00							
(D)	Total Private Sector Investments	2,14,186.00		19,232.44		29,770.00	26,850.00	16,028.64	
(E)	Grand Total for Central Sector Roads (incl. Private Sector Investments)	4,21,789.00	32,418.51	47,048.40	83,966.70	93,787.14	1,28,261.60	90,470.68	

Includes Rs. 22,685 crore diverted from NHAI(Investment) to NH(O) & ABS for J&K Package during 2012-17, in view of limited available resources under NH(O)

Table~9.2 The State/UT-wise details of funds allocated/utilized for development of NHs during each of the last three years

	States/UTs/Schemes/Agency	For Development of NHs							
Sl.	(Sl. 1 to 33 contains	2013-14		2014-15		2015-16		2016-17\$	
No.	allocation under NH(O), NHDP-IV through State PWD, EAP, PBFF)	Alloc.	Expd.	Alloc.	Expd.	Alloc.	Expd.	Alloc.	Expd.
1	Andhra Pradesh	188.04	187.62	221.45	221.45	1,039.42	1,000.4	2,010.3	2,014.50
2	Arunachal Pradesh	1.09	1.09	0.50	0.50	2.40	1.83	100.00	90.66
3	Assam	205.10	199.41	141.76	141.76	78.79	78.09	247.44	137.80
4	Bihar	304.57	271.33	276.65	276.65	706.92	707.86	1,395.00	1,331.61
5	Chhattisgarh	43.35	25.29	71.25	71.25	359.94	339.80	1,568.30	1,495.68
6	Goa	20.66	20.66	17.72	17.72	120.00	119.98	700.00	434.51
7	Gujarat	146.54	140.91	206.96	206.96	228.60	225.77	251.87	213.41
8	Haryana	53.51	53.51	60.48	60.48	90.00	89.85	150.00	161.27
9	Himachal Pradesh	100.44	99.74	134.57	134.57	140.00	139.96	250.95	182.14
10	Jammu & Kashmir	0.00	0.00	0.00	0.00	25.00	22.86	50.06	23.16
11	Jharkhand	70.32	70.32	63.83	63.83	35.00	38.08	200.00	212.50
12	Karnataka	165.85	164.55	269.72	269.72	633.43	639.55	833.13	871.96
13	Kerala	272.73	258.84	67.18	67.18	132.24	137.65	279.89	237.80
14	Madhya Pradesh	155.01	150.67	239.23	239.23	937.76	928.29	1,835.00	1,558.90
15	Maharashtra	177.23	177.01	190.04	190.04	431.20	423.28	1,871.92	1,154.00
16	Manipur	54.72	54.39	32.60	32.60	40.00	40.00	30.25	18.65
17	Meghalaya	35.70	33.61	43.30	43.30	15.00	15.00	41.27	28.44
18	Mizoram	22.11	20.57	39.53	39.53	35.00	28.50	30.00	46.13
19	Nagaland	44.65	44.65	46.20	46.20	50.00	46.27	50.00	38.84
20	Odisha	233.22	231.51	322.99	322.99	591.44	592.24	939.96	951.35
21	Punjab	113.78	113.24	2,328.04	2,328.04	1,852.26		2,690.50	2,702.48
22	Rajasthan	215.50	213.85	107.16	107.16	849.95	849.56	991.49	1,012.99
23	Sikkim	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	Tamil Nadu	210.24	210.24	167.13	167.13	337.02	336.47	566.00	640.11
25	Telangana	0.00	0.00	210.79	210.79	661.00	657.10	515.00	358.43
26	Tripura	0.00	0.00	0.00	0.00	5.00	0.00	40.00	2.38
27	Uttar Pradesh	289.54	284.35	493.81	493.81	1,530.34	1,527.74	2,584.02	1,820.85
28	Uttarakhand	87.84	85.90	169.51	169.51	245.92	245.69	342.62	314.48
29	West Bengal	134.10	134.10	283.61	283.61	808.95	811.98	1,339.12	1,223.19
30	Andaman & Nicobar Islands	0.00	0.00	14.61	14.61	2.00	1.53	0.13	0.13
31	Chandigarh	0.00	0.00	4.95	4.95	1.00	0.00	2.00	0.69
32	Delhi	0.00	0.00	0.02	0.02	1.00	0.00	2.00	0.62
33	Puducherry	0.00	0.00	12.73	12.73	20.00	18.10	20.00	14.28
34	Other projects under NH(O)*	341.42	341.30	758.05	713.42	511.00	443.44	791.38	787.79
35	National Highways Authority of India (NHAI)- Cess*	6,857.45	6,857.45	6,885.89	6,885.89	15,420.00	15,420.0 0	2,326.50	2,326.50
36	NHAI- Toll	4,770.00	4,770.00	5,448.00	5,448.00	6,500.00	6,500.00	7,500.00	7,500.00
37	NHAI- NH(O)	944.84	944.82	600.00	600.00	370.27	370.27	5,389.02	5,389.02
38	National Highways & Infrastructure Development Corporation Ltd. (NHIDCL) under NH(O)*	I	-	-	-	1.15	1.15	72.20	72.20
39	Border Roads Organization (BRO)*	434.00	414.25	292.00	268.79	0.00	0.00	0.00	0.00
40	Special Accelerated Road Development Programme for North-East Region (SARDP- NE) including Arunachal Package*	2,994.00	3,009.27	3,000.00	2,843.33	4,900.00	4,803.07	4,520.00	4,460.67
Ì	1		1	ĺ	Ī	l	Ī	1	

41	Special Programme for	1,035.00	1,021.02	1,174.00	1,164.59	1,121.00	996.11	760.00	739.27
	development of Roads In Left								
	Wing Extremism affected Area								
	(LWE) including Development								
	of Vijayawada-Ranchi Road								
42	Externally Aided Projects -	42.50	0.00	276.00	239.93	22.00	9.25	57.84	56.72
72	Head Quarters#	42.30	0.00	270.00	237.73	22.00	7.23	37.04	30.72
	Sub- Total	20,765.05	20,605.47	24,672.26	24,402.27	40,852.00	40,461.99	43,345.16	40,626.11
43	IEBR / Borrowings by NHAI	8,000.00	7,942.13	7,611.11	3,343.40	42,694.50	23,281.00	59,279.00	33,118.00
	Grand Total	28,765.05	28,547.60	32,283.37	27,745.67	83,546.50	63,742.99	1,02,624.1 6	73,744.11

^{*-} State/UT wise allocations are not made. \$- Provisional

 $[\]mbox{\#-figures}$ for 2013-14 and 2014-15 Include total allocation for NH works also

ANNEXURE

ROAD LENGTH (TOTAL AND SURFACED)

ALL INDIA AND STATE-WISE

Annexure 1.1
Total and Surfaced Road Length By Categories in India
As on 31.03.2016 (in km)

Sl. No.	Category	Sub Category	Total	Surfaced (% age)
1	National Hi		101011	101011 (100)
2	State Highv	<u> </u>	176166	170237 (96.6)
3	District roa		561940	533493 (94.9)
4	Rural Road		3035337	2007777 (66.1)
		PMGSY Roads	626377	551132 (88.0)
		PWD/RWD Roads	548387	458021 (83.5)
		Panchayati Raj Roads	1860573	998624 (53.7)
5	Urban Road	ds	509730	396458 (77.8)
	-L	Municipal Roads	480105	368747 (76.8)
		MES Roads	16911	16369 (96.8)
		Major Port Roads	836	826 (98.8)
		Minor Port Roads	361	340 (94.2)
		Railway Roads	11517	10176 (88.4)
6	Project Roa	nds	319109	109727 (34.4)
		Forest Department Roads	171068	36833 (21.5)
		BRO Roads	21357	18353 (85.9)
		Coal Mine Roads	4039	3831 (94.8)
		Electricity Department Roads	5137	4766 (92.8)
		Irrigation Department Roads	99913	32313 (32.3)
	Sugarcane Authorities Roads			10947 (74.3)
		SAIL & NMDC Roads	2867	2683 (93.6)
Total*	Excluding	JRY Roads)	4703293	3318704 (70.6)
Total*	** (Including	g JRY Roads)	5603293	3501906 (62.5)

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 31.03.2016 (in km)

	As on 31.03.2016 (in km)						
Sl.	Category	Sub	Total		Surfaced		Un-
No.		Category	(6+7)	WBM/WMM	BT/CC	Total (4+5)	surfaced
1		2	3	4	5	6	7
1	National Hig	•	101011	0	101011	101011	0
2	State Highw		176166	2550	167687	170237	5928
3	District road		561940	25100	508392	533493	28447
4	Rural Roads JRY)	s (excluding	3035337	499438	1508339	2007777	1027560
		PMGSY Roads	626377	78437	472696	551132	75245
		PWD/RWD Roads	548387	64082	393939	458021	90366
		Panchayati Raj Roads	1860573	356920	641704	998624	861949
5	Urban Road	s	509730	41706	354752	396458	113272
		Municipal Roads	480105	39979	328768	368747	111358
		MES Roads	16911	400	15969	16369	542
		Major Port Roads	836	64	762	826	10
		Minor Port Roads	361	24	316	340	21
		Railway Roads	11517	1239	8937	10176	1341
6	Project Roa		319109	39567	70160	109727	209382
		Forest Department Roads	171068	20878	15955	36833	134235
		BRO Roads	21357	917	17436	18353	3003
		Coal Mine Roads	4039	460	3372	3831	208
		Electricity Department Roads	5137	1059	3707	4766	371
		Irrigation Department Roads	99913	16124	16189	32313	67600
		Sugarcane Authorities Roads	14728	5	10942	10947	3781
		SAIL & NMDC Roads	2867	124	2559	2683	184
Total	(Excluding J	RY Roads)	4703293	608362	2710341	3318704	1384590
Total	(Including J	RY Roads)	5603293	791564	2710341	3501906	2101388

Note: Totals may not add up because of rounding off of decimals.

Total & Surfaced Length of Roads in India

As on 31.03.2016 (State/UT-wise) (in km)

Sl.No.	Name of State/UT	Total	Surfaced
1	2	3	4
1	Andhra Pradesh	174367	116663
2	Arunachal Pradesh	30692	18348
3	Assam	329520	64572
4	Bihar	206484	123412
5	Chhattisgarh	95809	77069
6	Goa	16063	10990
7	Gujarat	179144	156177
8	Haryana	48482	42399
9	Himachal Pradesh	55759	43680
10	Jammu And Kashmir	49716	34246
11	Jharkhand	66786	58032
12	Karnataka	345515	223050
13	Kerala	200808	142220
14	Madhya Pradesh	289940	240639
15	Maharashtra	613418	478064
16	Manipur	24776	15590
17	Meghalaya	21727	10665
18	Mizoram	8108	7137
19	Nagaland	36114	17138
20	Odisha	288083	264594
21	Punjab	108379	98149
22	Rajasthan	254279	205647
23	Sikkim	8243	6174
24	Tamilnadu	261035	213600
25	Telangana	123572	86166
26	Tripura	39365	20152
27	Uttarakhand	61018	35583
28	Uttar Pradesh	422412	352016
29	West Bengal	316730	130019
30	A & N Islands	1493	1443
31	Chandigarh	2821	2821
32	Dadra & Nagar Haveli	1134	1134
33	Daman & Diu	496	496
34	Delhi	17625	17623
35	Lakshadweep	209	209
36	Pondichery	3174	2789
Total *		4703293	3318704

^{*} Excluding JRY Roads

Total Road Length and Percentage Share of Each Category of Road (1951-2016) (in km)

Year (as on 31st March)	National Highways	State Highways	Other PWD Roads	District Roads	Panchayat Raj Roads	JRY & PMGSY Roads*	Rural Roads built by State PWD	Urban Roads	(in km) Project Roads	Surfaced	Total (Col. 2+3+4+5+6+7 +8+9+10)
1	2	3	4	5	6	7	/ RWD 8	9	10	11	12
1951	19,811	#	1,73,723		2,06,408	0		0	0	1,57,019	3,99,942
1751	4.95	0.00	43.44		51.61	0.00		0.00	0.00		100
1961	23,798	#	2,57,125		1,97,194	0.00		46,361	0.00	39.26 2,63,052	5,24,478
1901	·								_		
1051	4.54	0.00	49.02		37.60	0.00		8.84	0.00	50.16	100
1971	23,838	56,765	2,76,833		3,54,530	0		72,120	1,30,893	3,97,948	9,14,979
	2.61	6.20	30.26		38.75	0.00		7.88	14.31	43.49	100
1981	31,671	94,359	4,21,895		6,28,865	0		1,23,120	1,85,511	6,83,676	14,85,421
	2.13	6.35	28.40		42.34	0.00		8.29	12.49	46.03	100
1991	33,650	1,27,311	5,09,435		9,31,288	3,29,142		1,86,799	2,09,737	10,90,167	23,27,362
	1.45	5.47	21.89		40.01	14.14		8.03	9.01	46.84	100
2001	57,737	1,32,100	7,36,001		10,68,020	9,03,996		2,52,001	2,23,665	16,01,745	33,73,520
	1.71	3.92	21.82		31.66	26.80		7.47	6.63	47.48	100
2002	58,112	1,37,711	6,95,335		11,34,326	9,26,697		2,50,295	2,24,124	16,61,555	34,26,600
	1.70	4.02	20.29		33.10	27.04		7.30	6.54		100
2003	58,112	1,34,807	6,96,960		11,55,491	9,26,697		2,97,259	2,59,328	48.49 17,01,258	35,28,654
2003	1.65	3.82	19.75		32.75	26.26		8.42	7.35	48.21	100
2004	65,569	1,33,177	7,19,257		11,89,058	9,51,511		3,01,310	2,61,625	17,60,768	36,21,507
2004	1.81	3.68	19.86		32.83	26.27		8.32	7.22		100
2005		1,44,396	7,86,230		12,99,463	9,66,976		2,86,707	2,59,815	48.62 17,95,298	38,09,156
2003	65,569 1.72	3.79	20.64		34.11	25.39		7.53	6.82	47.13	100
2006	66,590					9,89,867					38,80,651
2006	1.72	1,48,090 3.82	8,03,669 20.71		13,18,258 33.97	25.51		2,91,991 7.52	2,62,186 6.76	18,58,684 47.90	100
2007	66,590										40,16,401
2007	1.66	1,52,235 3.79	8,35,003 20.79		13,72,867 34.18	10,20,621 25.41		3,00,580 7.48	2,68,505 6.69	19,44,758	100
2008	66,754	1,54,522	8,63,241		13,88,750	10,61,809		3,04,327	2,70,189	48.42 20,36,063	41,09,592
	1.62	3.76	21.01		33.79	25.84		7.41	6.57	49.54	100
2009	70,548	1,58,497	9,62,880		15,14,952	11,14,213		3,73,802	2,76,617	23,24,504	44,71,510
	1.58	3.54	21.53		33.88	24.92		8.36	6.19	51.98	100
2010	70,934	1,60,177	9,77,414		15,18,205	11,74,330		4,02,448	2,78,931	24,32,813	45,82,439
	1.55	3.50	21.33		33.13	25.63		8.78	6.09	53.09	100
2011	70,934	1,63,898	9,98,895		15,30,366	12,19,438		4,11,679	2,81,628	25,24,682	46,76,838
	1.52	3.50	21.36		32.72	26.07		8.80	6.02	53.98	100
2012	76,818	1,64,360	10,22,287		15,87,787	12,50,433		4,64,294	2,99,415	26,98,590	48,65,394
	1.58	3.38	21.01		32.63	25.70		9.54	6.15	55.46	100
2013	79,116	1,69,227	10,66,747		17,25,318	14,34,321		4,46,238	3,10,955	31,71,002	52,31,922
	1.51	3.23	20.39		32.98	27.41		8.53	5.94	60.61	100
2014	91,287	1,70,818	10,82,267		18,00,747	15,03,581		4,57,467	2,96,319	25,335	54,02,486
2011	1.69	3.16	20.03		33.33	27.83		8.47	5.48	0.47	100
2015	97,991	1,67,109	11,01,178		18,31,043	15,06,212		4,67,106	3,01,505	33,41,008	54,72,144
2013	1.79	3.05	20.25		33.46	27.53		8.54	5.51	61.05	100
2016 (P)	1,01,011	1,76,166		5,61,940	18,60,573	15,26,377	5,48,387	5,09,730	3,19,109	35,01,906	56,03,293
	1.80	3.14		10.03	33.20	27.24	9.78	9.10	5.70	62.49	100
# Included in	n Other PWD Ro	oads.	Totals may not	add up becau	se of rounding of	off of decimals.	<u></u>				

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

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

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

ANNEXURE NATIONAL HIGHWAYS

Annexure 2.1 Length of National Highways in India As on 31.03.2016 (State/UT-wise) (in km)

	on 31.03.2016 (State/UT	1 1
Sl. No.	Name of State/ UT	Length of NH
1	2	3
1	Andhra Pradesh	5465
2	Arunachal Pradesh	2513
3	Assam	3821
4	Bihar	4839
5	Chhattisgarh	3078
6	Goa	262
7	Gujarat	4971
8	Haryana	2622
9	Himachal Pradesh	2642
10	Jammu & Kashmir	2601
11	Jharkhand	2654
12	Karnataka	6503
13	Kerala	1812
14	Madhya Pradesh	5194
15	Maharashtra	7435
16	Manipur	1746
17	Meghalaya	1203
18	Mizoram	1381
19	Nagaland	1150
20	Odisha	4838
21	Punjab	2769
22	Rajasthan	7906
23	Sikkim	463
24	Tamil Nadu	4946
25	Telangana	2696
26	Tripura	805
27	Uttarakhand	2714
28	Uttar Pradesh	8483
29	West Bengal	2956
30	Andaman & Nicobar Island	331
31	Chandigarh	15
32	Dadar & Nagar Haveli	31
33	Daman & Diu	22
34	Delhi	80
35	Lakshadweep	0
36	Puducherry	64
	Total	101011

Source: Roads Wing: Ministry of Road Transport & Highways

Note: All National Highways are surfaced

Lane wise Length of National Highways in India As on 31.03.2016 (in km)

Source: Roads Wing Ministry of Road Transport & Highways

Note: All National Highways are surfaced.

ANNEXURE STATE HIGHWAYS

Total and Surfaced Length of State Highways in India As on 31.03.2016 (State/UT-wise) (in km)

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 for Andhra Pradesh are as on 31/03/2015.

Length of State Highways in India - By Type of Surface As on 31.03.2016 (State/UT-wise)

	As on 31.03.2016 (State/UT-wise) (in						
Sl.No.	Name of State/UT					Un-surfaced	
		(6+7)	WBM/WMM	BT/CC	Total (4+5)		
1	2	3	4	5	6	7	
1	Andhra Pradesh *	6485	2	6379	6381	104	
2	Arunachal Pradesh \$	8123	1286	2757	4043	4080	
3	Assam	2530	0	2180	2180	350	
4	Bihar	4253	0	4253	4253	0	
5	Chhattisgarh	4462	251	4081	4332	130	
6	Goa	279	6	274	279	0	
7	Gujarat	17201	29	16954	16983	218	
8	Haryana	1801	3	1798	1801	0	
9	Himachal Pradesh	1466	0	1466	1466	0	
10	Jammu & Kashmir	130	0	130	130	0	
11	Jharkhand	1296	0	1296	1296	0	
12	Karnataka	19578	91	19463	19554	24	
13	Kerala	4342	0	4342	4342	0	
14	Madhya Pradesh	10934	0	10934	10934	0	
15	Maharashtra	39000	517	37617	38134	865	
16	Manipur	715	60	655	715	0	
17	Meghalaya	772	52	685	737	35	
18	Mizoram	170	0	170	170	0	
19	Nagaland	722	199	524	722	0	
20	Odisha	4187	13	4169	4182	5	
21	Punjab	1133	0	1133	1133	0	
22	Rajasthan	15188	4	15104	15108	80	
23	Sikkim	701	0	701	701	0	
24	Tamil Nadu	11752	0	11752	11752	0	
25	Telangana	2731	3	2728	2731	0	
26	Tripura	329	0	329	329	0	
27	Uttarakhand	4521	36	4449	4484	37	
28	Uttar Pradesh	7147	0	7147	7147	0	
29	West Bengal	3612	0	3612	3612	0	
	Andaman & Nicobar	2312	·		5512		
30	Island	266	0	266	266	0	
31	Chandigarh	200	0	200	200	0	
	Dadra & Nagar						
32	Haveli	28	0	28	28	0	
33	Daman & Diu	22	0	22	22	0	
34	Delhi	0	0	0	0	0	
35	Lakshadweep	0	0	0	0	0	
36	Puducherry	89	0	89	89	0	
	Total	176166	2550	167687	170237	5928	

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

⁽²⁾ 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).

^{(3) *} Figures for Andhra Pradesh are as on 31/03/2015.

⁽⁴⁾ Totals may not add up because of rounding off of decimals

ANNEXURE

DISTRICT ROADS

Total & Surfaced Length of District Roads

As on 31.03.2016 (State/UT-wise) (in km)

Sl.No.	Name of State/UT	(in km) Total	Surfaced
1	2	3	4
1	Andhra Pradesh *	35471	34732
2	Arunachal Pradesh @	0	0
3	Assam	5788	4376
4	Bihar	10634	10634
5	Chhattisgarh	25308	22458
6	Goa	1173	1172
7	Gujarat	30809	30228
8	Haryana	21817	21739
9	Himachal Pradesh	2438	2438
10	Jammu & Kashmir	3917	3853
11	Jharkhand	9310	9186
12	Karnataka	49909	48853
13	Kerala	27471	27471
14	Madhya Pradesh	19429	19429
15	Maharashtra	109531	99617
16	Manipur	9466	4843
17	Meghalaya	5062	3936
18	Mizoram	1580	1371
19	Nagaland	6458	3682
20	Odisha	14694	14203
21	Punjab	6930	6930
22	Rajasthan	22571	21985
23	Sikkim	1415	660
24	Tamil Nadu	45538	45538
25	Telangana	22160	21562
26	Tripura	1189	1189
27	Uttarakhand	4791	4352
28	Uttar Pradesh	53373	53373
29	West Bengal	10444	10419
30	Andaman & Nicobar Island	139	139
31	Chandigarh	83	83
32	Dadra & Nagar Haveli	190	190
33	Daman & Diu	89	89
34	Delhi	2462	2462
35	Lakshadweep	0	0
36	Puducherry	302	302
	Total	561940	533493

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 for Andhra Pradesh are as on 31/03/2015.

Length of District Roads - By Type of Surface As on 31.03.2016 (State/UT-wise)

(in km)

Sl.No.	Name of State/UT	Total Length (6+7)		Surfaced		Un- surfaced
		(0+7)	WBM/WMM	BT/CC	Total	suriaced
			VV DIVI/ VV IVIIVI	B1/CC	(4+5)	
1	2	3	4	5	6	7
1	Andhra Pradesh *	35471	241	34491	34732	739
2	Arunachal Pradesh @	0	0	0	0	0
3	Assam	5788	0	4376	4376	1412
4	Bihar	10634	0	10634	10634	0
5	Chhattisgarh	25308	2213	20245	22458	2850
6	Goa	1173	1	1172	1172	1
7	Gujarat	30809	293	29935	30228	581
8	Haryana	21817	0	21739	21739	78
9	Himachal Pradesh	2438	215	2223	2438	0
10	Jammu & Kashmir	3917	490	3362	3853	65
11	Jharkhand	9310	170	9016	9186	124
12	Karnataka	49909	1683	47169	48853	1057
13	Kerala	27470	0	27470	27470	0
14	Madhya Pradesh	19429	420	19009	19429	0
15	Maharashtra	109531	15764	83853	99617	9913
16	Manipur	9466	904	3940	4843	4623
17	Meghalaya	5062	196	3740	3936	1126
18	Mizoram	1580	0	1371	1371	209
19	Nagaland	6458	1723	1959	3682	2776
20	Odisha	14694	287	13916	14203	491
21	Punjab	6930	0	6930	6930	0
22	Rajasthan	22571	17	21968	21985	586
23	Sikkim	1415	97	562	660	756
24	Tamil Nadu	45538	0	45538	45538	0
25	Telangana	22160	316	21246	21562	598
26	Tripura	1189	0	1189	1189	0
27	Uttarakhand	4791	64	4287	4352	440
28	Uttar Pradesh	53373	0	53373	53373	0
29	West Bengal	10444	4	10415	10419	25
30	Andaman & Nicobar Island	139	0	139	139	0
31	Chandigarh	83	0	82	83	0
32	Dadra & Nagar Haveli	190	0	190	190	0
33	Daman & Diu	89	0	89	89	0
34	Delhi	2462	0	2462	2462	0
35	Lakshadweep	0	0	0	0	0
36	Puducherry	302	1	301	302	0
	Total	561940	25100	508392	533493	28447

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

Totals may not add up because of rounding off of decimals

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

^{*} Figures for Andhra Pradesh are as on 31/03/2015.

ANNEXURE

RURAL ROADS

Total & Surfaced Length of Rural Roads As on 31.03.2016 (State/UT-wise) (in km)

CLAT	As on 31.03.2016 (State	, ,	km)
Sl.No.	Name of State/UT	Total	Surfaced
1	2	3	4
1	Andhra Pradesh	97666	48339
2	Arunachal Pradesh	14509	8038
3	Assam	291933	48704
4	Bihar	175373	99476
5	Chhattisgarh	35048	29565
6	Goa	13303	8441
7	Gujarat	85989	76543
8	Haryana	6974	5561
9	Himachal Pradesh	44755	35170
10	Jammu And Kashmir	22698	20328
11	Jharkhand	36076	34158
12	Karnataka	200389	105056
13	Kerala	127985	79090
14	Madhya Pradesh	203542	183817
15	Maharashtra	413146	306755
16	Manipur	11121	6720
17	Meghalaya	13534	4488
18	Mizoram	3487	2995
19	Nagaland	26631	10662
20	Odisha	217919	216259
21	Punjab	70362	69722
22	Rajasthan	171259	131175
23	Sikkim	4796	3562
24	Tamilnadu	165292	123014
25	Telangana	81640	47642
26	Tripura	35041	17351
27	Uttarakhand	24755	18244
28	Uttar Pradesh	245396	222357
29	West Bengal	191354	41505
30	A & N Islands	437	437
31	Chandigarh	0	0
32	Dadra & Nagar Haveli	802	802
33	Daman & Diu	218	218
34	Delhi	0	0
35	Lakshadweep	207	207
36	Pondichery	1702	1375
Total (E	Excluding JRY Roads)	3035337	2007777
Total (In	cluding JRY Roads)	3935337	2190979

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 2016 (State/UT-wise)

(in km)

S.No	Name of State/UT			Surfaced		Unsurfaced
		Total Length (6+7)	W.B.M	BT/CC	Total (4+5)	
1	2	3	4	5	6	7
1	Andhra Pradesh	19384	1597	13119	14715	4669
2	Arunachal Pradesh	6481	1133	5287	6420	61
3	Assam	17628	1597	16000	17598	31
4	Bihar	52775	13392	36644	50036	2739
5	Chhattisgarh	35048	3279	26286	29565	5483
6	Goa	207	24	159	183	24
7	Gujarat	18441	428	12227	12655	5786
8	Haryana	6974	52	5509	5561	1412
9	Himachal Pradesh	14857	1343	11400	12743	2114
10	Jammu And Kashmir	10387	3529	6609	10139	248
11	Jharkhand	21150	6582	12649	19232	1919
12	Karnataka	22847	1025	17597	18623	4224
13	Kerala	6743	859	2499	3358	3385
14	Madhya Pradesh	73661	7420	64839	72260	1401
15	Maharashtra	31012	3215	23838	27054	3959
16	Manipur	7405	1955	4765	6720	685
17	Meghalaya	2203	909	1294	2203	0
18	Mizoram	2852	393	2459	2852	0
19	Nagaland	3638	234	3396	3630	9
20	Odisha	46849	9021	36168	45189	1660
21	Punjab	8926	1514	6773	8286	639
22	Rajasthan	63873	3732	58702	62434	1439
23	Sikkim	4780	539	3015	3553	1226
24	Tamilnadu	17749	1052	12984	14036	3713
25	Telangana	11254	943	9471	10414	840
26	Tripura	6479	1331	3463	4793	1685
27	Uttarakhand	9104	1775	6837	8612	492
28	Uttar Pradesh	74113	4356	48249	52605	21508
29	West Bengal	29270	5005	20390	25395	3875
30	A & N Islands	0	0	0	0	0
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	Pondichery	107	19	69	88	19

Note: Totals may not add up because of rounding off of decimals.

Length of Rural Roads built by State PWD/RWD - By Type of Surface

As on 31.03.2016 (State/UT-wise) (in km)

Sl.No.	Name of State/UT		Total Surfaced				
		Length (6+7)	WBM/WMM	BT/CC	Total (4+5)	Un-surfaced	
1	2	3	4	5	6	7	
1	Andhra Pradesh						
2	Arunachal Pradesh	2783	317	82	399	2383	
3	Assam	36544	0	18990	18990	17554	
4	Bihar \$						
5	Chhattisgarh \$						
6	Goa	3328	34	2625	2659	669	
7	Gujarat	23114	499	21622	22121	993	
8	Haryana \$ Himachal Pradesh	28203	5002	17162	22164	6039	
10	Jammu & Kashmir	9571	3836	17162 4660	8496	1075	
11	Jharkhand	14926	0	14926	14926	0	
12	Karnataka \$	14720		14720	14720	Ü	
13	Kerala \$						
14	Madhya Pradesh	26482	4980	18762	23742	2740	
15	Maharashtra	146136	47151	53830	100981	45154	
16	Manipur \$						
17	Meghalaya	2112	70	1073	1142	969	
18	Mizoram	635	0	144	144	491	
19	Nagaland	3538	431	0	431	3107	
20	Odisha \$						
21	Punjab \$						
22	Rajasthan	63099	300	60282	60582	2517	
23	Sikkim						
24	Tamil Nadu \$						
25	Telangana \$						
26	Tripura	6037	847	4659	5506	531	
27	Uttarakhand	15652	602	9031	9632	6020	
28	Uttar Pradesh	163116	0	163035	163035	81	
29	West Bengal	1468	0	1426	1426	42	
23	Andaman & Nicobar	1400	0	1420	1420	42	
30	Island	437	10	427	437	0	
31	Chandigarh \$						
32	Dadra & Nagar Haveli	620	3	617	620	0	
33	Daman & Diu	126	0	126	126	0	
34	Delhi \$		-			-	
35	Lakshadweep	207	0	207	207	0	
36	Puducherry	254	0	254	254	0	
20	Total	548387	64082	393939	458021	90366	

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

\$ This category of Rural Roads built by above agencies does not exist in these States & UTs /alternatively they have not furnished data.

Length of Panchayati Raj Roads - By Type of Surface

As on 31.03.2016 (State/UT-wise)

(in km)

Sl.	Name of State/UT	Total	Surfaced			Unsurfaced
No.		Length (6+7)	W.B.M.	BT/CC	Total (4+5)	
1	2	3	4	5	6	7
1	Andhra Pradesh	78282	10614	23010	33624	44658
2	Arunachal Pradesh	5245	0	1219	1219	4026
3	Assam	237761	8378	3738	12116	225645
4	Bihar	122598	7240	42200	49440	73158
5	Chhatisgarh					
6	Goa	9768	1043	4556	5599	4169
7	Gujarat	44434	5640	36127	41767	2667
8	Haryana					
9	Himachal Pradesh	1695	72	191	263	1432
10	Jammu & Kashmir	2740	1693	0	1693	1047
11	Jharkhand					
12	Karnataka	177542	23059	63374	86433	91109
13	Kerala	121242	15924	59808	75732	45510
14	Madhya Pradesh	103399	0	87815	87815	15584
15	Maharashtra	235998	76527	102193	178720	57278
16	Manipur	3716	0	0	0	3716
17	Meghalaya	9219	460	683	1143	8076
18	Mizoram					
19	Nagaland	19455	3141	3461	6602	12853
20	Odisha	171070	171070	0	171070	0
21	Punjab	61436	0	61436	61436	0
22	Rajasthan	44287	3914	4245	8159	36128
23	Sikkim	16	2	7	9	7
24	Tamil Nadu	147543	10155	98823	108978	38565
25	Telangana	70386	13011	24217	37228	33158
26	Tripura	22525	1829	5223	7052	15473
27	Uttarakhand					
28	Uttar Pradesh	8167	1020	5697	6717	1450
29	West Bengal	160616	1910	12774	14684	145932
30	A & N Islands					
31	Chandigarh					
32	Dadra & Nagar Haveli					
33	Daman & Diu	92	1	91	92	0
34	Delhi					
35	Lakshadweep					
36	Puducherry	1341	217	816	1033	308
	Total	1860573	356920	641704	998624	861949

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

ANNEXURE

URBAN ROADS

Annexure 6.1

Total & Surfaced Length of Urban Roads As on 31 03 2016 (State/UT-wise) (in km

	As on 31.03.2016 (State/UT-wise) (in km)							
Sl.No.	Name of State/UT	Total	Surfaced					
1	2	3	4					
1	Andhra Pradesh	24124	19544					
2	Arunachal Pradesh	266	201					
3	Assam	6306	4049					
4	Bihar	8826	3702					
5	Chhattisgarh	12247	10464					
6	Goa	865	769					
7	Gujarat	27360	22503					
8	Haryana	14680	10529					
9	Himachal Pradesh	1127	1045					
10	Jammu And Kashmir	1668	1668					
11	Jharkhand	6003	4692					
12	Karnataka	51357	35668					
13	Kerala	30788	25711					
14	Madhya Pradesh	15741	11819					
15	Maharashtra	23870	18887					
16	Manipur	151	96					
17	Meghalaya	171	167					
18	Mizoram	395	363					
19	Nagaland	99	97					
20	Odisha	20842	15793					
21	Punjab	17534	15387					
22	Rajasthan	27544	23429					
23	Sikkim	48	46					
24	Tamilnadu	24496	22787					
25	Telangana	10256	9338					
26	Tripura	602	424					
27	Uttarakhand	5573	3949					
28	Uttar Pradesh	62565	47469					
29	West Bengal	95267	66954					
30	A & N Islands	143	142					
31	Chandigarh	2523	2523					
32	Dadra & Nagar Haveli	83	83					
33	Daman & Diu	145	145					
34	Delhi	15083	15081					
35	Lakshadweep	2	2					
36	Pondichery	982	932					
	Total	509730	396458					

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 31.03.2016 (State/UT-wise) (in km)

Sl.No.	As on 31.03.2016 (State/UT-wise) I.No. Total Surfaced					
S1.NO.	Name of State/UT	Length	WBM/WMM	BT/CC	Total	Unsurfaced Total
	Name of State/Of	(6+7)	W BIVI/ W IVIIVI	ВІ/СС	(4+5)	Total
1	2	3	4	5	6	7
1	Andhra Pradesh *	22988	3910	14529	18439	4549
2	Arunachal Pradesh #	168	4	101	105	63
3	Assam	4729	620	1890	2510	2219
4	Bihar @	8537	1112	2375	3487	5050
5	Chhattisgarh	11846	1000	9092	10092	1754
6	Goa	631	81	454	535	95
7	Gujarat	26111	2939	18315	21254	4857
8	Haryana	13747	594	9114	9708	4039
9	Himachal Pradesh	645	0	645	645	0
10	Jammu & Kashmir @	441	2	439	441	0
11	Jharkhand \$	5335	346	3717	4063	1271
12	Karnataka	50343	6837	27833	34670	15673
13	Kerala	30332	3394	21937	25331	5001
14	Madhya Pradesh	14175	1896	8417	10313	3862
15	Maharashtra	20958	4095	12382	16477	4481
16	Manipur @	122	22	46	68	54
17	Meghalaya @	30	0	26	26	4
18	Mizoram **	380	2	349	351	29
19	Nagaland	0				
20	Odisha	19896	3938	10957	14896	5000
21	Punjab	15183	1023	12055	13078	2105
22	Rajasthan @	24986	1867	19179	21046	3940
23	Sikkim	48	0	46	46	2
24	Tamil Nadu	23350	773	20939	21712	1638
25	Telangana @@	9103	82	8105	8187	917
26	Tripura	518	115	257	372	146
27	Uttarakhand ##	4797	363	2815	3178	1618
28	Uttar Pradesh	59960	0	45220	45220	14740
29	West Bengal @	92963	4831	59928	64759	28204
30	Andaman & Nicobar Islands@	42	0	42	42	0
31	Chandigarh	2334	0	2334	2334	0
32	Dadra & Nagar Haveli ****	83	0	83	83	0
33	Daman & Diu	45	0	45	45	0
34	Delhi ***	14317	0	14317	14317	0
35	Lakshadweep ^	0	0	0	0	0
36	Puducherry	964	132	785	917	47
30	Total	480105	39979	328768	368747	111358
	าบเลา	400102	ンフグリブ	340/UO	300/4/	111330

Source: State & UT Urban Departments.

^{*} The total is for all 110 Municipalities of Andhra Pradesh.

^{**} Mizoram has only one Municipal Corporation – Aizwal Municipal Corporation. The road under this Corporation is under purview of PWD.

^{***} This data is for North, South & New Delhi Municipal Corporations.

^{****} D&N Haveli has only one municipality – Silvasa Municipal Council

^{\$} The Jharkhand data covers all 40 Urban local bodies.

[^] There are no Municipalities in Lakshadweep. The data is therefore nil.

[@]Figure is as on 31/03/2015- Data not received.

^{@@} includes data for only Greater Hyderabad Municipal Corporation.

[#] The figure for Arunachal Pradesh includes only Itanagar Municipal Council.

^{###} The figure Uttarakhand includes only Municipalities of Nanital, Bageshwar, Pauri Garhwal, Chamoli.

Annexure No. 6.3
Length of Military Engineering Service Roads - By Type of Surface
As on 31.03.2016 (State/UT-wise) (in km)

Sl. No.	Name of State/UT	Total Length (6+7)		Surfaced	(m)	Unsurfaced
		(0+1)	W.B.M.	B.T./C.C	Total (4+5)	
1	2	3	4	5	6	7
1	Andhra Pradesh	318	0	318	318	0
2	Arunachal Pradesh	94		94	94	0
3	Assam	976	1	969	970	6
4	Bihar	51	0	51	51	0
5	Chhattisgarh	0	0	0	0	0
6	Goa	124	0	124	124	0
7	Gujarat	998	0	998	998	0
8	Haryana	499	0	484	484	15
9	Himachal Pradesh	185	1	180	181	4
10	Jammu & Kashmir	1174	51	1123	1174	0
11	Jharkhand	123	0	123	123	0
12	Karnataka	632	45	585	630	2
13	Kerala	307	0	235	235	72
14	Madhya Pradesh	903	0	903	903	0
15	Maharashtra	1838	0	1500	1500	338
16	Manipur	25	0	25	25	0
17	Meghalaya	139	10	129	139	0
18	Mizoram	7	0	7	7	0
19	Nagaland	87	0	87	87	0
20	Odisha	197	0	197	197	0
21	Punjab	2073	0	2072	2072	1
22	Rajasthan	1703	53	1551	1604	99
23	Sikkim	0	0	0	0	0
24	Tamil Nadu	477	37	440	477	0
25	Telangana	434	62	372	434	0
26	Tripura	21	0	21	21	0
27	Uttarakhand	753	14	736	750	3
28	Uttar Pradesh	859	16	843	859	0
29	West Bengal	970	14	954	968	2
30	Andaman & Nicobar Islands	90	0	90	90	0
31	Chandigarh	189	0	189	189	0
32	Dadra Nagar Haveli	0	0	0	0	0
33	Daman & Diu	92	0	92	92	0
34	Delhi	571	96	475	571	0
35	Lakshadweep	2	0	2	2	0
36	Pondicherry	0	0	0	0	0
30	Total	16911	400	15969	16369	542

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

Annexure 6.4

Length of Roads in Major Ports - By Type of Surface As on 31.03.2016 (State/UT-wise)

As on 31.03.2016 (State/UT-wise) (in km)							
States/UTs	Major Port Trusts	Total Length (6+7)	Surfaced			Unsurfaced	
			W.B.M.	B.T./C.C	Total (4+5)		
1	2	3	4	5	6	7	
Andhra Pradesh	Visakhapatanam	103	3	100	103	0	
Goa	Mormugoa	25	0	25	25	0	
Gujarat	Kandla	97	0	97	97	0	
Karnataka	New Mangalore	47	3	44	47	0	
Kerala	Cochin	36	5	31	36	0	
Maharashtra	Jawaharlal Nehru Port Trust	64	0	56	56	8	
	Mumbai Port Trust	67	0	67	67	0	
Odisha	Paradeep	121	4	115	119	2	
	Chennai Port	30	2	28	30		
Tamil Nadu	Kamrajar Port (Ennore Port Trust)	14	0	14	14	0	
	Tuticorin	78	0	78	78	0	
	Kolkata Port	50	47	3	50	0	
West Bengal	Haldia Dock	104	0	104	104	0	
	Total	836	64	762	826	10	

Source: Individual Port Trusts

Length of Minor Ports - By Type of surface As on 31/03/2016 (State/UT-wise)

(in km)

Name of	Name of the Ports	Total		Surfaced		Unsurfaced	
State/UT		Length (6+7)	W.B.M.	B.T./C.C	Total (4+5)		
1	2	3	4	5	6	7	
	Bhavanapadu						
Andhua Duadach	Kakinada	10	0	10	10	0	
Andnra Pradesn	Machilipatnam	18	0	18	18	0	
1 Andhra Pradesh	Nizampatnam						
	Tiracol						
	Chapora						
Goa	Panajim	80	0	80	80	0	
	Betul						
	Talpona						
	Jakhau						
	Mandavi						
	Mundra						
	Navalakhi						
	Okha						
	Bedi						
	Rozi						
	Porbandar						
	Veraval						
	Jafrabad						
Gujarat	Victor	154	7	147	154	0	
	Alang Ship Breaking Yard						
	Bhavnagar						
	Dahej						
	Surat						
	Madalla						
	Dumas						
	Dholai						
	Onjal						
	Kosamba						
	Vizhinjam						
	Valiyathura						
	Kollam						
	Kochupilamooodu						
	Neendakara						
	Sakthikulangara						
	Pullikkada						
Kerala	Alappuzha	12	0	12	12	0	
Keraia	Kodungallur	12	U	12	12	U	
	Kayamkulam						
	Ponnani						
	Thalassery						
	Azhikkal						
	Kasaragod						
	Beypore						
	Kannur						

contd. Annexure 6.5

Name of	Name of the Ports	Total		Surfaced	conta. m	Unsurfaced	
State/UT	Traine of the Forts	Length (6+7)	W.B.M.	B.T./C.C	Total (4+5)	Chsuraced	
1	2	3	4	5	6	7	
Karnataka	Karwar Old Mangalore Belekeri Honnavar Bhatkal Hangarakatta Malpe Tadadi Padubidri	15	0	15	15	0	
Odisha	Kundapura Gopalpur Dhamara	- 46	13	16	29	17	
A & N Islands	Port Blair Campbell Bay Hut Bay Rangat Bay Car nicobar	11	3	7	10	1	
Daman & Diu	Daman Diu	- 8	0	8	8	0	
Puducherry	Pondicherry Karaikal	17	1	13	14	3	
Tamil Nadu *	Cuddalore Nagapattinam Rameswaram Colachel	0	0		0	0	
	Total	361	24	316	340	21	

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.

Annexure No. 6.6 Length of Roads in Railway Zones - By Type of Surface in India As on 31.03.2016 (State/UT-wise) (in kms)

Sl. No.	Name of State/UT	Total		Surfaced		Unsurfaced
		Length (6+7)	W.B.M.	B.T./C.C	Total (4+5)	
1	2	3	4	5	6	7
1	Andhra Pradesh	697	53	613	666	31
2	Arunachal Pradesh	4	0	2	2	2
3	Assam	601	37	532	569	32
4	Bihar	238	18	146	164	74
5	Chhattisgarh	401	38	334	372	29
6	Goa	5	0	5	5	0
7	Gujarat	0	0	0	0	0
8	Haryana	434	19	318	337	97
9	Himachal Pradesh	297	3	216	219	78
10	Jammu & Kashmir	53	0	53	53	0
11	Jharkhand	545	97	409	506	39
12	Karnataka	320	48	258	306	14
13	Kerala	101	11	86	97	4
14	Madhya Pradesh	663	111	492	603	60
15	Maharashtra	943	143	644	787	156
16	Manipur	4	2	1	3	1
17	Meghalya	2	0	2	2	0
18	Mizoram	8	2	3	5	3
19	Nagaland	12	1	9	10	2
20	Odisha	582	66	486	552	30
21	Punjab	278	42	195	237	41
22	Rajasthan	855	118	661	779	76
23	Sikkim	0	0	0	0	0
24	Tamil Nadu	547	82	394	476	71
25	Telangana	719	51	666	717	2
26	Tripura	63	14	17	31	32
27	Uttarakhand	23	1	20	21	2
28	Uttar Pradesh	1746	102	1288	1390	356
29	West Bengal	1180	168	905	1073	107
30	Andaman & Nicobar 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	195	12	181	193	2
35 36	Lakshadweep Puducherry	0	0	0	0	0
30	Total	11517	1239	8937	10176	1341
	10111	I		l		I

Source: Data based on Railway Zones which had reported.

^{1:} Figures for North Western and North Central Railway are as on 31.3.2012

^{2:} Figures for East Central Railway is as on 31.3.2008

^{3:}Figures for Central Railway is as on 31.3.2006

^{4:} Figures for Northern Railway is as on 31.3.2004

ANNEXURE

PROJECT ROADS

Total & Surfaced Length of Project Roads
As on 31.03.2016 (State/UT-wise) (in km)

Sl.No.	Name of State/UT	Total	Surfaced
1	2	3	4
1	Andhra Pradesh	5156	2202
2	Arunachal Pradesh	5282	3553
3	Assam	19142	1442
4	Bihar	2559	508
5	Chhattisgarh	15666	7172
6	Goa	181	66
7	Gujarat	12814	4948
8	Haryana	589	146
9	Himachal Pradesh	3331	919
10	Jammu And Kashmir	18702	5667
11	Jharkhand	11447	6046
12	Karnataka	17779	7417
13	Kerala	8411	3795
14	Madhya Pradesh	35100	9446
15	Maharashtra	20436	7235
16	Manipur	1577	1469
17	Meghalaya	985	134
18	Mizoram	1095	857
19	Nagaland	1054	825
20	Odisha	25603	9319
21	Punjab	9651	2208
22	Rajasthan	9811	6044
23	Sikkim	820	742
24	Tamilnadu	9011	5563
25	Telangana	4089	2197
26	Tripura	1400	53
27	Uttarakhand	18664	1841
28	Uttar Pradesh	45448	13187
29	West Bengal	13096	4572
30	A & N Islands	177	128
31	Chandigarh	0	0
32	Dadra & Nagar Haveli	0	0
33	Daman & Diu	0	0
34	Delhi	0	0
35	Lakshadweep	0	0
36	Pondichery	34	26
	Total	319109	109727

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.

Sl.N	Name of State/UT	Total Length		Surfaced		Unsurfaced
0		(6+7)	W.B.M.	B.T./C.C	Total (4+5)	
1	2	3	4	5	6	7
1	Andhra Pradesh *	4096	1247	63	1311	2785
2	Arunachal Pradesh	1034	7	40	48	987
3	Assam	17307	392	686	1078	16229
4	Bihar *	2030	0	0	0	2030
5	Chhattisgarh	10868	5055	0	5055	5813
6	Goa *	181	17	49	66	115
7	Gujarat	3879	578	2052	2630	1248
8	Haryana *	459	2	14	16	443
9	Himachal Pradesh	2254	0	26	26	2228
10	Jammu & Kashmir	11461	0	76	76	11385
11	Jharkhand	9442	1729	2470	4199	5243
12	Karnataka	7477	477	404	881	6596
13	Kerala	4730	870	471	1341	3389
14	Madhya Pradesh	29798	2208	4946	7154	22644
15	Maharashtra	12664	3585	340	3925	8739
16	Manipur					
17	Meghalaya	678	0	4	4	674
18	Mizoram	42	6	12	18	24
19	Nagaland *	289	0	102	102	187
20	Odisha	7575	1074	117	1191	6384
21	Punjab	707	0	0	0	707
22	Rajasthan	5260	341	1578	1919	3340
23	Sikkim	6	0	4	4	2
24	Tamil Nadu	3351	833	799	1632	1719
25	Telangana *	2252	611	160	771	1481
26	Tripura *	1346		11	11	1334
27	Uttarakhand	16993	0	454	454	16539
28	Uttar Pradesh	8510	984	657	1641	6869
29	West Bengal	6203	751	400	1151	5052
30	Andaman & Nicobar Islands	177	110	18	128	49
31	UT Chandigarh					
32	Dadra & Nagar Haveli					
33	Daman & Diu					
34	Delhi					
35	Lakshadweep					
36	Puducherry					
	Total	171068	20878	15955	36833	134235

${\bf Source: State\ Departments\ of\ Forests}$

* For Andhra Pradesh, Bihar, Goa, Nagaland, Tripura, Haryana and Telangana, the length is as on 31.03.2015 Blank cells refer to States and UTs who have not furnished data or have insignificant or nil forest roads

Length of Roads under Border Roads Organisation - By Type of Surface in India As on 31.03.2016 (State/UT-wise) (in km)

Sl.No	Name of	Total		Surfaced		Unsurfaced	
	State/UT	Length (6+7)	W.B.M.	B.T./C.C	Total (4+5)		
1	2	3	4	5	6	7	
1	Andhra Pradesh						
	Arunachal	4248	129	3377	3505	742	
2	Pradesh						
3	Assam	215	0	194	194	21	
4	Bihar						
5	Chhattisgarh						
6	Goa						
7	Gujarat						
8	Haryana						
	Himachal	985	43	780	822	163	
9	Pradesh	5010	120	5 020	7.170	10.0	
10	Jammu & Kashmir	6819	438	5020	5458	1362	
10	Jharkhand						
11	Karnataka						
12	Karnataka						
13	Madhya Pradesh						
14	Maharashtra						
15	Manipur	1577	27	1442	1469	107	
16	Meghalaya	1377	21	1442	1409	107	
17	Mizoram	1053	22	817	839	215	
18	Nagaland	765	36	687	723	42	
19 20	Odisha	703	30	067	123	42	
	Punjab	252	4	249	252	0	
21	Rajasthan	3312	0	3254	3254	59	
22	Sikkim	814	88	650	738	76	
23	Tamil Nadu	014	00	030	736	70	
24							
25	Telangana	54	21	21	42	12	
26	Tripura Uttarakhand	1089	111	774	885	205	
27		1089	111	//4	003	203	
28	Uttar Pradesh	174	0	174	174	0	
29	West Bengal Andaman &	1/4	U	1/4	1/4	U	
20	Nicobar Islands						
30	UT Chandigarh		1				
31	Dadra & Nagar						
32	Haveli						
33	Daman & Diu						
34	Delhi						
35	Lakshadweep						
36	Puducherry						
· · · · · ·	Total	21357	917	17436	18353	3003	

Source : DG Border Roads

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

Note: Totals may not add up because of rounding off of decimals.

Annexure 7.4 Length of Roads under coal fields/ coal units of Coal India Limited - By Type of Surface on 31.03.2016 (State/UT-wise) (in km)

Sl.No.	Name of States/UTs	Total	Surfaced			Unsurfaced
51.110.	(Names of Coal Fields)	Length	W.B.M.	B.T./C.C	Total	Chsurraceu
	(Names of Coal Fields)	(6+7)	W.D.M.	D.1. /C.C	(4+5)	
1	2	3	4	5	6	7
1	Andhra Pradesh					
2	Arunachal Pradesh					
3	Assam	51	2	42	44	7
	i. North Eastern Coalfields, Margherita- Tinsukia					
4	Bihar					
5	Chhattisgarh					
	i. South Eastern Coal Fields, Bilaspur	801	76	692	768	33
6	Goa					
7	Gujarat					
8	Haryana					
9	Himachal Pradesh					
10	Jammu & Kashmir					
11	Jharkhand					
i	Bharat Coking Coal Ltd., Dhanbad	544	46	417	463	82
ii	Eastern Coal Fields Ltd.	52	14	26	40	12
iii	Central Coal Fields, Ranchi	674	41	623	664	10
12	Karnataka					
13	Kerala					
14	Madhya Pradesh					
i	Western Coal Fields	207	11	196	207	0
ii	Northern Coal fields Ltd. Singarauli					
15	Maharashtra					
i	. Western Coal Fields Ltd, Nagpur	520	169	310	478	42
16	Manipur					
17	Meghalaya					
18	Mizoram					
19	Nagaland					
20	Odisha					
i	Mahanadi Coal Fields. Sambalpur					
21	Punjab					
22	Rajasthan					
23	Sikkim					

24	Tamil Nadu					
25	Telangana					
i	Singareni Coal field, Kothagudem, Bhadradri Dist.	906	70	833	903	3
26	Tripura					
27	Uttarakhand					
28	Uttar Pradesh					
29	West Bengal					
i	Eastern Coalfields Limited, Burdwan	284	31	234	265	18
30	Andaman & Nicobar Islands					
31	UT Chandigarh					
32	Dadra & Nagar Havelli					
33	Daman & Diu					
34	Delhi					
35	Lakshadweep				_	
36	Puducherry					
	Total	4039	460	3372	3831	208

Note: Western Coal fields are located in Maharashtra and in Madhya Pradesh.

Eastern Coal Fields are located in Jharkhand & in West Bengal.

Note: Totals may not add up because of rounding off of decimals.

Annexure 7.5 Length of Roads under Electricity Departments of States/UTs - By Type of Surface in India As on 31.03.2016 (in km)

Sl.No	Name of State/UT	Total		Surfaced			
		Length (6+7)	W.B.M.	B.T./C.C	Total (4+5)		
1	2	3	4	5	6	7	
1	Andhra Pradesh *	204	52	149	201	3	
	Arunachal Pradesh						
	Assam	113	21	77	98	15	
4	Bihar *	529	148	360	508	21	
5	Chhattisgarh	169	27	140	167	2	
6	Goa						
7	Gujarat	167	37	116	153	14	
8	Haryana	130	9	121	130	0	
9	Himachal Pradesh *	92	29	42	71	21	
10	Jammu & Kashmir						
11	Jharkhand	174	35	139	174	0	
12	Karnataka	169	26	129	155	14	
13	Kerala	252	47	186	233	19	
14	Madhya Pradesh	756	304	398	702	54	
15	Maharashtra						
16	Manipur						
17	Meghalaya	132	6	111	117	15	
18	Mizoram						
19	Nagaland						
20	Odisha *	70	37	31	68	2	
21	Punjab	449	28	393	421	28	
22	Rajasthan	388	11	375	386	2	
23	Sikkim						
24	Tamil Nadu	812	208	528	736	76	
25	Telangana	128	22	89	111	17	
26	Tripura						
27	Uttarakhand *	164	4	143	147	17	
28	Uttar Pradesh	23	0	19	19	4	
29	West Bengal	216	8	161	169	47	
30	Andaman & Nicobar Islands						
31	UT Chandigarh						
	Dadra & Nagar Haveli						
	Daman & Diu						
	Delhi						
35	Lakshadweep						
	Puducherry						
	Total	5,137	1,059	3,707	4,766	371	

Source: State Departments of Electricity

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

.

^{*}Andhra Pradesh, Bihar, Himachal Pradesh, Odisha and Uttarakhand, the length is as on 31.03.2015

Length of Roads under Irrigation Departments of States/Uts - By Type of Surface in India
As on 31.03.2016 (in km)

Sl.No	Name of State/UT	Total		Surfaced	Unsurfaced		
		Length (6+7)	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	1,456	18	11	29	1,427	
4	Bihar						
5	Chhattisgarh *	3,023	111	296	407	2,616	
6	Goa						
7	Gujarat *	8,768	1,340	825	2,165	6,603	
8	Haryana						
9	Himachal Pradesh						
10	Jammu & Kashmir *	422	133	0	133	289	
11	Jharkhand						
12	Karnataka *	9,731	4,425	1,825	6,250	3,481	
13	Kerala	3,429	631	1,590	2,221	1,208	
14	Madhya Pradesh *	4,296	753	603	1,356	2,940	
15	Maharashtra	7,234	1,804	1,017	2,821	4,413	
16	Manipur						
17	Meghalaya	175	6	7	13	162	
18	Mizoram						
19	Nagaland						
20	Odisha *	17,387	4,429	3,113	7,542	9,845	
21	Punjab	8,243	66	1,469	1,535	6,708	
22	Rajasthan	851	131	354	485	366	
23	Sikkim						
24	Tamil Nadu	3,086	322	1,111	1,433	1,653	
25	Telangana	803	109	303	412	391	
26	Tripura						
27	Uttarakhand	406	18	325	343	63	
28	Uttar Pradesh *	24,169	119	2,175	2,294	21,875	
29	West Bengal	5,586	1,275	916	2,191	3,395	
	Andaman & Nicobar						
30	Islands						
31	UT Chandigarh						
	Dadra & Nagar Haveli						
32							
33	Daman & Diu						
34	Delhi						
35	Lakshadweep						
36	Puducherry						
	Total	99,913	16,124	16,189	32,313	67,600	

Source : State Departments of Irrigation

^{*:} For Andhra Pradesh, Chhattisgarh, Gujarat, J&K, Karnataka, M.P, Odisha and U.P the length is as on 31.03.2015 Blank cells refer to States and UTs who have not furnished data or have insigificant or nil irrigation roads

Length of Roads under Sugarcane Departments of States/UTs

By Type of Surface in India As on 31.03.2016 (in km)

Sl.No	Name of State/UT	Name of State/UT Total Surfaced				Unsurfaced	
		Length (6+7)	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	260	0	0	0	260	
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	12	0	12	12	0	
28	Uttar Pradesh	12,746	0	9,233	9,233	3,513	
29	West Bengal						
30	A & Nicobar Islands						
31	UT Chandigarh						
32	Dadra & Nagar Haveli		†				
33	Daman & Diu						
34	Delhi						
35	Lakshadweep						
36	Puducherry *	34	5	21	26	8	
	Total	14,728	5	10,942	10,947	3,781	

Source : State Sugarcane Departments

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

^{*:} For Puducherry the length is as on 31st March 2015

Length of Roads under SAIL & NMDC - By Type of Surface in India

As on 31.03.2016

(in km)

Sl.No	Name of State/UT	Total		Unsurfaced			
		Length (6+7)	W.B.M.	B.T./C.C	Total (4+5)		
1	2	3	4	5	6	7	
1	Andhra Pradesh	8	1	6	7	1	
2	Arunachal Pradesh						
3	Assam						
4	Bihar						
5	Chhattisgarh	805	10	765	775	30	
6	Goa						
7	Gujarat						
8	Haryana						
9	Himachal Pradesh						
10	Jammu & Kashmir						
11	Jharkhand	560	25	482	507	53	
12	Karnataka	142	14	117	131	11	
13	Kerala						
14	Madhya Pradesh	43	13	14	27	16	
15	Maharashtra	18	4	7	11	7	
16	Manipur						
17	Meghalaya						
18	Mizoram						
19	Nagaland						
20	Odisha	571	13	505	518	53	
21	Punjab						
22	Rajasthan						
23	Sikkim						
24	Tamil Nadu	86	0	86	86	0	
25	Telangana						
26	Tripura						
27	Uttarakhand						
28	Uttar Pradesh						
29	West Bengal	634	44	577	621	13	
30	5						
31	UT Chandigarh						
32	Dadra & Nagar Haveli						
33	Daman & Diu						
34	Delhi						
35	Lakshadweep						
36	Puducherry						
	Total	2,867	124	2,559	2,683	184	

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 insigificant or nilSAIL/NMDC roads

ANNEXURE MISCELLANEOUS

Annexure 8.1 Long - Term Trends of Investment in Highways

Amount in Rs. Crore

			Allo	cation		Expenditure				
SI. No.	Year	Plan	IEBR	Non-Plan	Total	Plan	Non-Plan	IEBR raised	Private Sector Investment	Total
(1)	(2)	(3)	(4)		(5)	(6)		(7)	(8)	(9)
1	2004-05	6,856.00	3,300.00	1796.5	11,952.50	5,813.53	1,458.47	0.00	1,462.85	8,734.85
2	2005-06	11,408.00	8,500.00	1,956.75	21,864.75	10,330.80	1,826.50	1,289.49	649.08	14,095.87
3	2006-07	13,158.68	3,500.00	1,984.67	18,643.35	12,758.47	1,859.04	1,499.08	1,578.28	17,694.87
4	2007-08	14,156.68	2,090.00	2,266.50	18,513.18	13,742.18	2,233.86	305.18	7,062.40	23,343.62
5	2008-09	16,211.64	4,100.00	2,714.11	23,025.75	15,653.57	2,699.66	1,630.01	8,184.73	28,167.97
6	2009-10	16,641.31	5,000.00	3,463.00	25,104.31	15,120.60	3,387.64	1,153.63	8,572.54	28,234.41
7	2010-11	21,590.29	7,455.00	4,857.59	33,902.88	20,434.93	4,545.46	2,160.11	15,354.37	42,494.87
8	2011-12	22,966.76	12,500.00	4,283.06	39,749.82	19,489.98	3,950.21	12,511.52	25,998.56	61,950.27
9	2012-13	20,283.56	13,000.00	4,564.72	37,848.28	19,949.82	4,393.64	2,902.07	20,304.66	47,550.19
10	2013-14	26,211.41	8,000.00	4,918.42	39,129.83	23,920.97	4,756.38	7,942.13	22,515.05	59,134.53
11	2014-15	27,880.50	7,611.11	5,596.58	41,088.19	26,728.52	5,630.35	3,343.40	19,232.44	54,934.71
12	2015-16	44,324.00	42,694.50	2,783.71	89,802.21	43,328.36	2,608.70	23,281.00	29,770.00	98,988.06
13	2016-17	49,351.67	59,279.00	3,095.33	1,11,726.00	46,461.97	2,730.71	33,118.00	16,028.64	98,339.32

Source: Roads Wing, MoRTH

Remarks: Allocation and Expenditure upto 2014-15 includes the fund earmarked for Border Road Organisation for National Highways (Original), Maintainance and Repairs and for General Staff Roads under Separate Heads.

TERMS AND DEFINITIONS

Sl. No.	Terms	Definitions						
A. R	A. ROADS							
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.						
	IGHWAY CLAS	SSES BY FUNCTION						
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	District Roads comprising of Major District Roads (MDRs), Other District Roads (ODRs) provide connection between district and taluk headquarters with the State highways and National Highways. These roads which run within districts.						
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.						

C.	ROAD SURFACE						
1.	Bitumen or Tar	A type of construction in which the fragments of coarse aggregate are bound					
	Macadam	together by bitumen applied either premix or grouting method.					
2.	Bitumen	A type of construction in which coarse and fine mineral aggregates are mixed					
	Concrete	with bitumen and laid not to the desired thickness.					
	Surfacing						
3.	Black Top	The surface of roads made with bitumen as a binder.					
	Surface						
4.	Brick Paving	A paving composed of bricks laid in regular courses.					
5.	Cement Bound	A surface in which a matrix of a cement sand mixture is interposed between					
	Macadam	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	A surface obtained by placing and consolidating cement concrete to required					
	Concrete	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	A type of surfacing in which stone fragments are first inter locked by rolling					
	Macadam	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.					
		(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.					