

TRANSPORT AND COMMUNICATIONS

Karnataka is blessed with rich cultural heritage. In the early Indian literary works of Kautilya and others; and foreign accounts of Pliny, Ptolemy and Alberuni there are reference to transport and conveyance system pertaining to Karnataka also. Early settlements of pre-historic culture and the existence of Asokan Rock Edicts in different parts of Karnataka speak much about the socio-cultural contacts that might have prevailed in those days. Hala, the Shatavahana ruler of Kuntala, in his work Gatha Saptasathi, a poetic compilation, also refer to major and minor roads. Moreover existence of earlier road system and flourishing trade centres in ancient Karnataka has been recorded in early inscriptions. A Copper Plate record (713 A.D.) of Ganga Shivamara I from Hallegere in Mandya taluk, refer not only to the construction of a bridge across the Kilini river, but also a “Rajapatha” (Highway) passing across the village. Likewise, according to a record of 1123 A.D., a major road was connecting Terdal and Halasi, the two important commercial centres in North Karnataka. A Chola inscription refers to a major road running from Tanjore to Kalyana viz., Basava Kalyana, the Chalukyan capital. Another Highway or Principal route was the one connecting Konkan area with the interior Karnataka and a place on the borders of Goa has that name even now.

There were *aravattiges* (where drinking water was provided), choultries and shady groves all along such roads. Ferries and boats were operating across rivers and streams in between the land. Goods were transported on head load, *kavadi* or else on the back of bullocks, asses or he-buffaloes. Carts were moving wherever roads existed. The remnants of an old bridge that connected Hampi and Anegondi across the Tungabhadra River in earlier times can be seen in Hampi even now. Similar old bridges can also be seen at Harihara, Srirangapattana, Shivanasamudra, Bidanuru (Nagar), Ramanagara, Nanjanagud, PaneMangaluru and such other places.

Construction of systematic roads in the Bombay Karnataka area was started only after 1856. Among them, Belagavi-Hubballi road on the Pune-Harihara route, and Dharwad-Mundgod-Sirsi-Kumta roads were prominent. The oldest road in Kalaburagi area is the road from Kalaburagi to Firozabad via Kotnur, Nandikere, Shiruru and Parvatabad. The road development activity in the Kodagu area was started actually after 1834, by the British. Some Ghat roads opened or improved in Dakshina Kannada District during 1837-1843. Madras was connected with Mangaluru via Bengaluru, Mysuru and Madikeri. The Mangaluru road which runs through Madikeri and Sampaje Ghat was started in 1837. The road connecting Konkan and Malabar on the western coast was primitive and passed through Kundapur, Udupi, Mangaluru and Kasargod, which had series of rivers and streams to be crossed by ferries and boats. In early days, condition of roads in Vijayapura district was not satisfactory. There were only two roads in 1820, and the first one was between Shikaripur and Sholapur via Vijayapura, while the second one connecting sea coast with the Nizam’s territory through Bagalkot.

The turn of 20th century saw the beginning of all-round development of road network throughout the State. From 1930 onwards the roads under Bombay Presidency were classified as Class I, Class II A, II-B and Class-III depending on the importance of roads. The Chiplun (Ratnagiri dist.)-Hyderabad Class I road was passing through Vijayapura district. Another Class I road originating from Sholapur was connecting Vijayapura with Hubballi. The most important link in the northern circle of the Bombay Presidency was Pune-Bengaluru road. In the days of Commissioner Cubbon, he saw to it that Bengaluru, the capital of Mysuru State was connected with all district headquarters and by the time he left office (1861), the State had 2,555 km. of new roads and 309 bridges.

During the pre-independence period, the old Mysuru State had a very good road communication



Bullock Cart Transportation (an art work by N. Hanumaiah)

system. Roads were classified as State Fund Roads and District Fund Roads for the purpose of construction and maintenance. In contrast, till 1943, there was no systematic classification of roads in other parts of the country. Later, according to the Nagpur Plan in 1943, the roads were classified into National Highways, State Highways Major District Roads, Other District Roads and Village Roads. In 1951, the road length in Dakshina Kannada and Udupi districts was about 2,000 km. At the time of the merger of Ballari with the Old Mysuru State in 1953, the length of the roads was 1,218 km. and in 1956, the integrated State had 43,182 km. road length, of which 26,423 km. was from old Mysuru and the share of Bombay-Karnataka and Hyderabad-Karnataka region was 11,260 and 2,478 km. respectively. The districts of Dakshina Kannada (including Udupi district) and Kodagu then had a road length of 2,109 and 912 km., respectively.

Development of Roads

In 1956, the road length including that of the integrated areas in the State was 43,182 km. The road development in Bidar, Kalaburagi, Ballari, Raichur and Koppal was very poor. After the unification in 1956, the road length in the State gradually went on increasing. As a result, it increased to 55,369 Km. by 1966 and to 79,947 Km. by 1974. Special attention was paid to the development of roads in those areas during various Five Year Plans. From 1956 to 1978, about 6,059 km. new road length was added and 21,854 km. existing roads were improved. During the same period, 16,344 km. road length was asphalted. For providing accessibility to the villages, about

30,543 km. rural roads were formed and 460 bridges were constructed.

Total road length, at the time of the reorganization of Mysuru State(1956)

Category of Road	Length (kms)
National Highways	864
State Highways	5,983
Major District Roads	7,006
Other District Roads	5,951
Village Roads	2,373
TDB Roads	19,222
Forest Department Roads	1,783
Total	43,182

Source: Statistical Abstract of Mysuru 1960-61
Bureau of Economics & Statistics, Government of Mysuru 1963

The total road length in 1981 was 98,523 km. and an account of implementation of several road schemes; it was increased to 1,21,266 km. in 1992. The roads which were in charge of P.W.D. increased from 32,177 km. in 1956 to 64,628 km. in 1981. The quality of the roads maintained by the P.W.D. was also improved. The cement concreted/asphalted road surface which stood at 3,858 km. in 1956 increased to 26,022 km. in 1979 and was 36,229 during 1992. The length of cement concrete roads has decreased substantially due to its recoating with black topped surface. Un-metalled roads controlled by P.W.D. in 1956 was 2,343 km. when compared to 8,935 km. in 1966 and during 1992 it was 11,089 km. In addition, 11,089 km. roads have been transferred from the control of P.W.D. to the Zilla Parishads (1-4-1987).

The Government has retransferred 10,000 km. road length from the control of Zilla Parishads to the PWD on 18th February 1992. The aim was to improve them at the rate of 50 km. per Assembly Constituency. Besides, they are being upgraded into major district roads. For the development of Kalaburagi division (Kalaburagi, Ballari, Bidar, Raichur and Koppal District), roads and bridges are being constructed. During 1990-91 and 1991-92, a sum of Rs.61.60 lakhs was spent on roads and bridges. In 1990, a scheme for the improvement of roads was launched. Under this programme, a sum of rupees twelve lakhs was spent on road works in each Assembly constituency. An amount of Rs.867.08 lakhs was spent in 1990-91 and in 1991-92, it rose to 1,694.39 lakhs.

The total road length in the State by 1998 was 1,42,687 km. comprising 2,335 km. of National Highways, 11,037 km. of State Highways, 28,301 km. of Major District Roads, 1,644 km. of Other District Roads, 42,791 km. village Roads, 31,583 km. of TDB Roads, 9,417 km. of Irrigation Dept. Roads and 2,582 km. of Forest Dept. Roads excluding 8,366 km. of Municipality Roads and 4,665 km. of Gramapanchayati Roads. Among them, 97,392 km. were surfaced, and others were unsurfaced Roads. The average road length per one lakh population is 288 km. and the average road length per sq.km. respectively. During the 8th plan (1992-97), a sum of Rs.42,717.24 lakhs were spent on laying and improving of 8,537 km., asphaltting 3,321 km. of roads and building in a sum of Rs.953 crores has been provided for construction improvement and maintenance of roads and bridges in the state.

As on December 2004, the total road length in the State was 1,44,130 km. comprising 3,973 Km. of National Highways, 17,252 Km. State Highways, 30,647 km. Major District Roads, 1620 km. of other District Roads, 48,148 km. of Village Roads and 42,490 km. of Other roads with an average of 246 Km. Road length per one lakh population and an average road length of 70 Km. per 100 Sq.km. area. As on March 2006, the total road length in the state had gone upto 1,67,779 km. (comprising of 52,205 km.s PWD roads and 1,15,574 Km. of Rural roads) while 3973 km. of National Highways, 17,240 km. of State Highways and 30,992 km. of Major District Roads is controlled by the PWD. The remaining 1,15,574 Km. roads considered as rural roads are being maintained by the Rural Development and Panchayat Raj Department. The latter, include Other District Roads and Village Roads. Among the Rural Roads while 57,068 km. is surfaced, the remaining 58,506 km. roads is of unsurfaced nature.

As on 2008 March, the total road length in the State had enhanced to 2,07,379 km. (comprising of 62,654 km. maintained by PWD and 1,44,725 km. of rural roads) maintained by Rural Development Panchayat Raj Department. The State's road network consists of National Highways (NH), State Highways (SH), Major District Roads (MDR), Municipal roads and other roads including village connectivity roads. The road development works in the State is carried out by multiple agencies, which include Public Works Department (PWD) of



State Highway

the State Government, Local Governments such as Zilla Panchayat and its wings & in urban areas, the City Corporations, City Municipal Corporations (CMC) etc. In the State, the average length of the PWD roads (viz.,NH, SH & MDR) per 100 sq.km area is 39.34 kms.

Among the districts, Mandya district has the highest road length of 70.36 Km. and Kalaburagi district has the lowest length of 24.58 Km. Further, the road lengths per 100Sq.Km.in Chamarajanagar, Raichur, Bidar, Chikkaballapura, Vijayapura, D.Kannada, Yadgir, Chickmagalur, Kodagu, Chitradurga, U.Kannada,

Ballari, Shivamogga, Kolar, Koppal & Udupi districts are below State average. Since 2011-12 there is no increase in the length of National Highways, State Highways and Major District Roads. As on March 2012, the country had 71,772 Km. National Highways/Express ways, 1,54,522 Km. State Highways, 2,66,058 Km. Major District Roads, 36,17,240 Km. Other District Roads & Rural Roads. As against to it, the following table reveal the Road Statistics of Karnataka during 2011 and 2013.

Type of Road	2011 -12	2012-13
National Highways	4490	4490
State Highways	20770	20770
Major District Roads	49959	49959
Municipal Roads	8366	8366
Other Roads	148412	148412
All Roads	231997	231997

As on 2014 March, the state had a total 75171 Km. with 4668 Km. National Highways, 20577 K.M. State Highways and 49906 Km. Major District Roads. It comprised 69,813 Km. Cement and Black top roads, 3552 Km. Macadam roads and 1806 Km. Kaccha roads

All the National Highways and large extent of State Highways (98.7%) and 90% of Major District Roads are covered with blacktop. The carriage width details of the roads show that about 19% of National Highways, 1% of State Highways and 2% of Major District Roads have Four lane width. Similarly, 67% of NH, 16% of SH and 1% of MDRs have two lane width.

National Highways: The National Highways are very important highways which connect Metropolitan cities, State capitals, Ports etc. throughout the country. The length of the National Highways in 1961 was 1,269 km. and in 1981 it was about 1,968 km. They were under the control of the Central Government previously. Since, 1971, the National highways are maintained by a separate wing of the State PWD, out of the Central funds. As in 1992-93, there were seven National Highways traversing in the State, with a total length of 1,997 km. National Highways are maintained and developed by respective zones with funds from Government of Karnataka, National Highway Authority of India and Ministry of Road Transport & Highways, Government of India.

The National Highways, the majority 2 lane (one in each direction), constitute a total of about 65,000 km (40,000 miles), out of which 5,840 km (3,630 miles) is to be converted into "Swarna Chatuspatha" or Golden Quadrilateral, a project commenced by the NDA Government led by Mr. Atal Bihari Vajpayee. Of which 4,885 km. (3,035 miles) are median-separated express highways. In some more developed areas it may broaden to 4 lanes. Closer to big cities, highways can even be of 8 lanes. Highways in India are around 2% of the total road network in the country, but carries nearly 40% of the total road traffic. The National Highways (Amendment) Bill, 1995, provides for private investment in the building and maintenance of these arteries of India.

The Kozhikode-Kollegal section passing through Sultan Batheri, Gundlupet, Nanjangud, Mysuru, T.Narasipur, Mugur, Uttamballi and the road between Bengaluru-Dindigal via Kanakapura,

Halagur, Malavalli, Sattegal, Kollegal, Yelandur, Santhemarahalli and Chamrajanagar in the State were declared as NH-209 and NH-212 respectively on June-July 1999 and the work is in progress. The Government of India has declared the 193 km. of Vijayapura-Hubballi road as the 13th National Highway in the State (NH-218) in October 2000. As a result, as on 2000 March, there were 13 National Highways traversing in the State totaling about 3,524 km. The second phase of Hubballi-Dharwad by pass on Build-Operate-Transfer (BOT) basis has been completed and commissioned for traffic. Under the Asian Development Loan Assistance, a length of 25 km. of the NH-7 has been taken up for converting it into four lanes (from Bengaluru to Tamilnadu border near Hosur). In February 2004, NH-218 has been further extended from Vijayapura upto Humnabad (220 km.s) via Jevargi in Kalaburagi district. As a result Kalaburagi district also figures in the map of National Highways. Likewise the road linking Gundlupet with NH-212 has also been declared as NH-15 in February 2004. As a result as on 31-03-2008, there were 15 National Highways (viz., N.H.-4, N.H-4A, N.H-44, N.H-9, N.H-13, N.H-17, N.H-48, N.H-63, N.H-67, N.H-206, N.H-207, N.H-209, N.H-212, N.H-218 and N.H-234 passing through the State with a road length of 4490.71 km. excluding the districts of Kodagu and Raichur which are deprived of National Highways. All other districts have National Highways passing through their Jurisdictions, Uttarkannada district with 331 km. of NH, tops the list, Mandya and Gadag districts with 73 km. and 74 km. are at the bottom.

National Highway No.7 has been declared as NH-44 and it is the longest NH, which connect Varanasi (U.P) from Northern India to Kanyakumari (T.N) of South India traversing 2369 km. passing through six states (U.P, M.P, Maharastra, A.P, Karnataka and T.N) with 134 km. in the State, of which 98 km. of road between Bengaluru-Krishnagiri coming under the Golden Quadri lateral highway project.

The Golden Quadrilateral (GQ; 5,846 km) connecting the four major cities of Delhi, Mumbai, Chennai and Kolkata. This project connecting four metro cities, would be 5,846 km (3,633 mi). Total cost of the project is Rs.300 billion (US\$6.8 billion), funded largely by the government's special petroleum product tax revenues and government borrowing.

The North-South, and East-West Corridors, comprising National Highways connecting the four destination points in the four directions of the country viz., connecting Srinagar in the north to Kanyakumari in the south, including spur from Salem to Kanyakumari (Via Coimbatore and Kochi) and Silchar in the east to Porbandar in the west. The total length of the network is 7,300 km (4,500 miles). It also includes Port connectivity and other projects viz., 1,157 km (719 miles). The final date for its completion was February 28, 2009 at an estimated cost of Rs.350 billion (US\$ 8 billion).

In January 2012, India announced the four lane Golden Quadrilateral highway network as completed. As of April 2012, 84.26% of the project had been completed and 15.7% of the project work is currently at progress.

At the end of March 2014, there were 15 National Highways traversing 4490.71Km. of road in the state. Among them, National highway No.4 (at present 44), 63, 206 and 209 have 864.21 km. of four lane road, National highway No.4A, 9,13, 17,48,63,67,206,207,209,212,218 and 234 have 2955.34 km. of two lane road. The longest National Highway in the country is the NH7 which is run from Varanasi to Kanyakumari passing through Uttar Pradesh, Madhya Pradesh, Maharashtra, Andhra Pradesh, Karnataka and Tamilnadu, covering a distance of 4,572 km (2,841 miles), as of Sep 2011 as per National Highways Authority of India. The shortest National Highway is the NH 47A (5.9 km (3.7 mile)), which connects Kundanoor Junction of *maradu* in Kochi city to the Kochi port at Willingdon Island. India has the distinction of having the world's highest drivable highway connecting Manali to Leh in Ladakh, Kashmir.

Details of Length & lane width of National Highways in Karnataka as on 31.03.2012

Sl.No	NH No.	Nomenclature	Length Km in the State	Carriageway Width			
				Single Lane	Intermediate Lane	Two Lane	Four Lane
1	4	Madras -Kolar-Bengaluru-Hubballi-Belagavi-Pune-Bombay	699.59	0	0	0	699.59
2	4A	Belagavi-Khanapur-Anmod-Panaji	84.12	0	0	84.12	0
3	7/44	Benaras-Nagapur-Hyderabad-Kurnool-Bagepalli-Bengaluru-Hosur-Krishnagiri-Madurai-Cape Camorin*	134.00	0	0	0	134.00
4	9	Poona-Sholapur-Humnabad-Hyderabad-Vijayawada	75.01	0	0	75.01	0
5	13	Sholapur-Chitradurga-Channagiri-Shivamogga-Thirthahalli-Sringeri-Karkala-Mangaluru	714.66	21.30	204.70	488.66	0
6	17	Panavel-Panjim-Karwar-Coondapur-Udupi-Mangaluru-Cannanore-Trichur	300.10	0	0	300.10	0
7	48	Bengaluru-Nelamangala-Kunigal-Hassan-Sakaleshpur-Mangaluru	319.50	0	0	319.50	0
8	63	Ankola-Hubballi-Hosapete-Ballari-Gooty	368.60	0	0	362.20	6.40
9	67	Mettupalayam-Ooty-Gudalur-Gundlupet (On NH-212)	26.10	0	15.84	10.26	0
10	206	Tumakuru- Shivamogga-Honnar	370.63	14.00	44.00	292.43	20.20
11	207	Hosur (On NH-7)-Sarjapur-Devenahalli -Doddaballapur-Dobbspet (On NH-4)	122.38	0	0	122.38	0
12	209	Dindigal-Pollachi-Coimbatore-Annur-Satyamangalam-Chamarajanagar-Kollegal-Bengaluru	203.52	0	30.20	169.30	4.02
13	212	The Highway starting from its junction NH-17 near Kozhikode in Kerala connecting Mysuru and terminating at its junction with NH-209 near Kollegal in Karnataka	151.00	0	37.00	114.00	0
14	218	Humnabad-Jevargi-Vijayapura-Hubballi	412.00	0	3.00	409.00	0
15	234	Mangaluru - Thiruvanamalli section	509.50	18	245.08	246.42	0

* National Highway 7 has been declared recently as National Highway 44.

The union department of road transport and highways has given its nod for the up-gradation of seven state highways in Karnataka with a total length of 2,108 km into national highways. It is learnt that about Rs 25,000 crore would be invested for up gradation, land acquisition, and construction of the above highways in the coming years. The roads to be converted into national highways are SH 50 with a length of 680 km, which connects SH 161 to NH 48 from Bidar, Humnabad, Kalaburagi, Hosapete and Laxmisagar, SH 150A from SH 50 at Jewargi to Chamarajanagar via Srirangaatna, Mysuru and Nanjangud (638 km), SH 206 which connects Tumakuru and Shivamogga via Arasikere (203 km), SH 173 from Moodigere to Chikkamagaluru and Kadur (72 km), SH 275 from Bantwal to Bengaluru via Mysuru (367 km), SH 367 from Kukanur to Gadanakeri via Bagalkot (156 km), SH 150 E from Kalaburagi to Akkalkot in Maharashtra via Afzalpur (104 km), SH 169 from Thirthahalli to Udupi via Agumbe.

State Highways: They are important joining links connecting the district headquarters with the state capital and interconnecting links between the National Highways in the state. As on March 2005 there were altogether 105 State Highways running I the state having 17240 km. road length. As on March 2008, it has raised to 20769.78 km. with 156 state highways in the state. While, Belagavi district with 2341 km. tops the list, Bengaluru (Urban) district with 171 km. was at the bottom. The road widening work on State Highway 17 (Mysuru-Bengaluru) and State Highway-19 (Srirangapattana-Bidar) has also brought the expected results with free traffic movement. As on 31-03-2013, the number of state highways has increased to 157 and the total road length has gone up to 20748.75, controlled by the P.W.D. department. It is given in the succeeding tables. Nomenclature of the state highways is given at the end of the chapter.

Sl.No	Name Of The District	Road Length (in Kms)			Total Road Length
		NH	SH	MDR	
1	2	3	4	5	6
1	Bengaluru (Urban)	147.00	96.70	686.69	930.39
2	Bengaluru (Rural)	205.00	193.60	650.60	1049.20
3	Ramanagara	73.00	315.53	1555.40	1943.93
4	Tumakuru	325.90	6631.25	3752.48	4709.63
5	Kolar	137.40	304.79	1081.05	1523.24
6	Chickballapur	148.00	263.88	928.04	1339.92
7	Mysuru	79.00	699.09	2497.60	3275.69
8	Chamarajanagar	190.00	339.26	995.21	1524.47
9	Mandya	73.00	484.36	2881.64	3439.00
10	Shivamogga	221.00	987.04	2006.48	3214.52
11	Chitradurga	167.00	612.64	2112.10	2891.74
12	Davangere	85.00	731.55	1612.10	2428.65
13	Hassan	252.16	985.17	3131.35	4368.68
14	Chikamagalur	176.25	610.21	1632.82	2419.28
15	Dakshina Kannada	266.00	528.80	774.85	1569.65
16	Udupi	142.00	353.71	790.98	1286.69
17	Kodagu	0.00	537.97	855.20	1393.17
	South Zone	2687.71	8675.55	27944.59	39307.85
18	Dharwar	189.00	484.41	1389.50	2062.91
19	Gadag	74.00	709.52	1187.84	1971.36
20	Haveri	103.00	587.21	1843.67	2533.88

21	Uttara Kannada	331.00	1238.71	2060.21	3629.92
22	Belagavi	201.00	2341.75	3040.62	5583.37
23	Bagalkote	126.00	879.01	1608.35	2613.36
24	Vijayapura	267.00	685.32	2440.91	3393.23
25	Ballari	181.00	1017.26	1804.54	3002.80
26	Raichur	0.00	1006.12	1506.81	2512.93
27	Koppal	124.00	709.02	1503.65	2336.67
28	Kalaburagi	125.00	1235.71	1400.95	2761.66
29	Yadgiri	0.00	486.06	1275.87	1761.93
30	Bidar	82.00	693.10	877.08	1652.18
	North Zone	1803.00	12073.20	21940.00	35816.20
	State Total	4490.71	20748.75	49884.59	75124.05

Source: P.W.D. Department

State Highways: Surface Feature and Carriageway Width (As on 31-03-2012)

Sl.No	Name Of The Zone	Total Length	Type of Surface				Carriage way width (in Km)			
			C.C.	B.T.	W.B.M.	Un-Surfaced	Single Lane	Intermediate Lane	Double Lane	Four Lane
1	South Zone	8685.07	23.51	8609.85	51.71	0	2793.43	4083.84	1612.61	195.21
2	North Zone	12089.30	17.68	11852.75	157.95	60.92	5742.15	4692.80	1635.89	18.46
3	State Total	20774.37	41.19	20462.60	209.66	60.92	8535.58	8776.64	3248.48	213.67

Source: P.W.D. Department

Major District Roads: As on March 2008, there was 49958.93 km. roads of this category in the State, maintained by the PWD. Tumakuru district with 3,761 km was ranked first. Bengaluru district (Urban) with 656.05 km. was at the bottom. Apart from this, there were 8366 km. of Municipal roads in city/town limits maintained by corporations, city Municipal corporations etc., As on march 2013, 49884.59 km. MDR roads existed in the State.

Major District Roads, District Wise : Surface Feature and carriage way width (in Km) (As on 31-03-2012)

Sl.No	Name Of The zone	Total Length (in Km)	Type of Surface				Carriage way width (in Km)			
			C.C.	B.T.	W.B.M.	Un-Surfaced	Single Lane	Intermediate Lane	Double Lane	Four Lanes
1	South Zone	27951.96	70.66	24944.38	2117.15	819.77	23463.60	4025.64	404.26	58.46
2	North Zone	21953.60	40.54	19764.12	1223.92	925.02	19542.69	2256.49	150.39	4.03
3	State Total	49905.56	111.20	44708.50	3341.07	1744.79	43006.29	6282.13	554.65	62.49

Other District Road: Excluding major district roads, other roads were considered as other District Roads till 1984. Later these roads were joined with village roads and considered as Rural Roads under the maintenance of Zilla Panchayat.

Rural Roads: The total length of rural roads in the State is 104034 Kms. Out of this 23511Kms.

is asphalted. Roads with macadam surface, less than about 40,000 Km. is considered as all-weather roads. Improvement of Roads and their maintenance is the responsibility of the Zilla Panchayats since 1987. The technical supervision is the responsibility of Rural Development and Panchayat Raj Department. Improvement of Roads and their maintenance is being done through the district sector Roads & Bridges schemes, Employment generation schemes and Pradhan Manthri Gram Sadak Yojana etc., Accordingly, at the end of March 2011, among the total 1,47,212 km. of Rural roads, there were 45,166 km. of metalled road, 25,032 km. macadam roads (roads formed by using two quantity of jelly, were called macadam roads-named after John Lowdan Makdum (1756-1836) of Scotland, who formed roads in 1820 using this method) and 77,104 km. of *kutch*a roads. The Rural roads are developed and maintained under Prime Minister's Grama Sadak, NABARD, Chief Minister's Rural Road Development Rural Communication, Our village-Our Road and such other programmes. Roads maintained by Taluk Development Board, Irrigation, Forest, Corporation, City Municipality, Town Municipality and Town Panchayat are in the State.

Rural Communication Programme: For the benefit of the rural population in the state, the Rural Communication Programme was launched in 1959-60. Its objective was to provide all-weather roads to important villages, construction of missing links and construction of cross drainages (culverts) with a linear water way of more than 20 feet on P.W.D. roads.

During the Chief-Engineers' Conference, a road development programme for twenty years (1961-1981) was chalked out. This plan envisaged improvements to the existing roads or upgrading or new construction of additional roads. The Public Works Department undertook a survey in 1970-71, to ascertain the number of villages connected by all-weather roads or any type of roads. This survey revealed that out of 26,286 inhabited villages, 10,299 villages were connected by metalled and all-weather roads, 9,865 villages were connected by unmetalled roads and the remaining 6,122 villages were not connected by any roads.

For providing speedy accessibility to villages, Integrated Comprehensive Rural Communication Programme was started in 1972-73. An amount

of Rs. 9.63 crore was spent in the Sixth Plan period, for constructing about 1,803 km. of new roads. Between 1985-86 to 1991-92, an amount of Rs.1.60 crore was incurred for constructing 77km. of new roads and some other Master Plan Rural Roads (1st Phase C.D.Works). Besides this, Minimum Needs Programme was started during 1974-75 and a sum of Rs.53.77 crores was spent for connecting 1,398 villages with all-weather approach roads from 1974-95 to 1991-92. As a result, till the end of 1991-92, 12649 villages were linked with All-weather roads. It constitutes 47% of the total inhabited villages in the State numbering 27,028. As many as 6,747 villages were provided with Fair weather Roads and 7,433 with Katcha roads which accounted for 25% and 27% respectively. The rest of the 199 villages were without approach roads. The Halli Heddari scheme was started in 1984-85. Under this scheme, till the end of 1991-92, 167 villages having a population of less than 1000 were provided with all-weather roads. The expenditure incurred was Rs.827.26 lakhs. The scheme of approach roads to colonies of the Scheduled Castes was launched in 1983-84. A sum of Rs.37.13 crores were spent from 1983-84 to 1991-92, for constructing about 2,099 km. of road length. Construction of roads under public participation was launched in 1986-87, to give high priority to the rural road works which have local people's participation. The Zilla Parishads also executed this programme. During 1987-88 to 1991-92 about 113 km. of Grama Panchayat roads were constructed/improved and an amount of Rs.161.53 lakhs were spent. The Government has approved to upgrade 10,000 km. of rural roads to that of Major District Roads and since 1995, road development in each constituency has been started as a special scheme. Since 1996, road development in Sugar factory areas has also been started. In 1995, World Bank aid being sought for State Highway improvement and NABARD loan is sought to improve rural communications in the State. The government has constituted "Karnataka Road Development Corporation" in June 99, with its registered office at Bengaluru with an authorized initial share capital of Rs.200 crores aimed at improving roads, bridges etc., with developmental programmes. It has taken up the up gradation of five roads with the financial aid of Rs.750 crores from HUDCO. By March 2000 among the 27,066 inhabitant villages in the State, 15800 villages have all-weather roads, 8,026

villages have Fair weather roads, and 3137 villages have Katcha roads and the remaining 103 villages were not connected by any road. But due to various steps taken up by the State Government village roads have been improved to a greater extent. As a result, by 2008, there were 24710 villages with all weather Roads, 6,540 villages with fair weather Roads, 3376 villages with Katcha roads and 17 villages unconnected by any road in the State. By 2010 March, the State had 66,791Km. All-weather road, 25,863 Km. Good road, and 54,558 Katcha roads.

Details of Rural Road Communication Condition in the State

Year	All-weather road (Km.)	Good road (Km.)	Kutch Surface Road (Km.)
2008-09	64,116	27,630	55,458
2009-10	65,904	26,450	54,858
2010-11	66,791	25,863	54,558

Karnataka Road Development Agency was established in 1999 as a State Government Enterprise to improve the infrastructure of roads in the State. The Corporation has constructed 613 bridges and developed 855 Km. of road. Later action has been taken to improve rural communication through various schemes. Under the Prime Minister's Grama Sadak programme (PMGSY) started in December 2000 in the State to connect all-weather roads to inhabited villages with a population of more than 500. A road length of 14,773.64 Km. of road was metalled by December 2011. In order to effectively implement this programme, Karnataka Rural Road Development Corporation was formed in October 2005. As a result, the villages without rural road communication have been declining. At the end of March 2011, there were 2,235 inhabitations without road communication in the State.

Table: Rural Connectivity (Km.)in Karnataka

Year	All weather Roads	Good Roads	Earthen Roads	Villages unconnected by Road (Nos.)
1997-98	15800	6551	4612	103
1998-99	16305	6419	4255	87
1999-00	16857	6099	4045	65
2000-01	17442	5764	3819	41
2001-02	17802	5462	3769	33
2002-03	17802	5649	3582	33
2003-04	18295	5860	3501	27
2004-05	20934	6065	3473	20
2005-06	22454	6146	3422	20
2006-07	23801	6232	3407	17
2007-08	24710	6540	3376	17
2008-09	64116	27630	55458	1718
2009-10	65904	26450	54858	2235
2010-11	66791	25863	54558	2235
2011-12	68649	24748	53815	2235

Bridges: The Sethubandhana Programme was commenced with the aim of constructing cross drainages on Non-PWD roads in the rural areas. In 1956, the number of bridges having 30.4 metre linear water ways was 304. In 1985-86 at a cost of Rs.90.07 lakhs, 184 cross Drainage Works were completed. With an expenditure of Rs.154.09 lakhs, 258 works were completed during 1991-92. A scheme was started to provide cross-drainage having a linear water way of less than six metres. Since 1985-86 to 1991-92, as many as 346 cross-drainage works were completed. The pace of the bridge construction was speeded

up and in 1991-92, there were 1,204 bridges in the State. Compared to 33,066 minor bridges in 1978, the minor bridges which included culverts also on all the categories of roads were 97,473 at the end of 31-03-1992. By 1998 there were 97,781 culverts, 13990 minor bridges (6-60m) and 469 major bridges (60m and above) built across all category of roads. As on march 2003, there were altogether 72,447 (including culverts, minor and major) bridges on the roads maintained by the PWD Department viz., National Highway, State Highway and Major District Roads. They comprised 62,757 culverts (of 6mt), 10,241 minor bridges (6-30mt.) and 449 major bridges (30 mt. and above).

Among them 6,080 bridges were situated on National Highways, 20,683 bridges on State Highways and 45,684 bridges on Major District Roads. As on March 2006, there were 486 major bridges ranging between 60 mt. to 300 mt. and above, were in existence on various rivers and streams in the State. Among them, Dakshina Kannada district with 34 topped the list and Bengaluru Urban District had no major river bridge worth mentioning. As on March 2007, of the 524 major briges in the State, 309 were located in the south zone, the remaining 215 were situated in north zone.

At the end of March 2011, there were 1,18,346 bridges in the State consisting of 1,01,526 cross drainages with less than 6 metre linear water way, 16,245 minor bridges with 6 to 60 metre linear water way, and 575 major bridges with more than 60 metre of linear water way. Out of these, 6,400 cross drainages, 1,115 small bridges, 69 major bridges were located on National Highways, 29,116 cross drainages, 5,157 minor bridges, 277 major bridges were on State Highway, and 66,010 cross drainages, 9,982 minor bridges and 229major bridges were located on Major District Roads.

Road Census: In order to improve the quality of roads, a census of movement of vehicles, transportation of goods, and the impact of pressure on different categories of road will be undertaken for a period of one week from day and night, once in 5 years and on select roads a model census of movement of vehicles for 2 days (48 hours) once in a year will be conducted. The road census was conducted for the first time in the State in 1961-62 and the first model road census was conducted in

1963-64. The movement of vehicles as per census of 2009-10 compared to the road census of 1970-71 is given below. The Road Traffic Census was conducted in 2013 also in Karnataka.

Category of Roads	Average vehicular movement P.C.U. (passenger car unit)		Percentage of increase in vehicular movement from 1970-71	Average annual increase 2009-10
National Highway	2,572	25,610	895.70	23.57
State Highway	1,115	9,321	735.96	18.40
Major District Roads	806	3,704	359.55	8.99

Bengaluru City and its Fly-overs: Bengaluru is India's third largest city and ranks fifth so far as metropolitan area is concerned. Bengaluru's road network exceeds 3,000 km. (1,800 mi) and consists of Ring_road, Arterial_roads, sub-arterial roads and residential streets. The city road network is mainly radial, converging in the centre. The main roads of Bengaluru coming into the city include Ballari Raod in the north, Tumakuru Road , Mysuru Road in the west, NH_209 ,Kanakpura Road,Bannerghatta_Road,Hosur_Road in the south and HAL_Airport and Chennai (Old Madras)Road in the east. Many of Bengaluru's erstwhile colonial and town streets were developed into commercial and entertainment areas after independence. The B.V.K Iyengar Road became the retail hub of Bengaluru, while MG. Road, Commercial Street and Brigade_Road became important shopping, recreation and corporate areas. Consequently, traffic increased exponentially, especially on MG



Fly-over, Hebbal, Bengaluru



Fly-over, Near K.R. Market Bengaluru

Road, which forms the main artery for the city's east-west traffic. But for MG Road, other roads in and around the erstwhile Parade Ground remain narrow, winding roads. Bengaluru's vehicular traffic has increased manifold, with 1.6 million registered vehicles in the city – the second highest for an Indian city, after New Delhi. The maintenance and construction of roads to address the growing traffic in the city has been a challenge to the BDA and the BBMP. Development of the city road infrastructure has revolved around imposing one-way traffic in certain areas, improving traffic flow in Junctions by constructing ring roads, bridges, flyovers and other Grade separators. Six high volume junctions were identified for improvements, through a Public private partnership involving corporate sponsors and various state government agencies, such as the Siddapur Road and Hosur Road junctions, sponsored by Infosys; the Airport Road and Intermediate Ring Road junction sponsored by the Tata Groups. Flyovers were constructed in the city to ease traffic congestion. Newer flyovers were planned for the city for 2006 and beyond.

Some of the fly-overs and one-ways mitigated the traffic situation moderately; however the volume of traffic continues to grow at an annual rate of between 7–10%. The Outer Ring Road was initially constructed to ease truck congestion in the city, however the growth of suburbs reduced the positive impact of the ring road. Bengaluru Development Authority is laying additional lanes on many of the major roads around Bengaluru. The Peripheral Ring Road is designed to be concentric

to the Outer Ring Road and covers 108.9 km. The Hosur Road, which connects Bengaluru to the Electronic City, is heavily congested and is part of the National Highway (NH7), therefore witness heavy truck traffic as well.

The Fly-over built in Bengaluru city, linking Sirsi Circle with Corporation via City Market, the longest of its kind in Asia has reduced the traffic pressure near City Market and Mysuru circle considerably. Likewise among the other Fly-overs, the one connecting Richmond Circle with Kengal Hanumanthaiah Double Road: another built on NH-4 near Krishnarajapuram (unique for its cable stay bridge): fly-over built at Dairy circle (Hosur Road), at National College: at Malleshwaram Circle: at Basaveshwara Nagar, at Hebbal Tank, at Marathalli and Mekri Circle (Ballari Road) at Yeshwanthpur, at Jayadeva Hospital, at Rajajinagar entrance, at Palace Guttahalli, Kadirenahalli ; Domlur ; Koramangala Sony World, Kaggadasapura, Madiwala Checkpost, Electronic City, Nagawara Junction , Intersection Of Outer Ring Road and Mysuru Road at Nayandahalli etc., are few more examples which reflect on the action taken by the government to improve the traffic movement in the city. Likewise the railway under bridges constructed near fire brigade station in Mysuru is worth mentioning. Like wise over bridges have been constructed at different places in the state.

The Government has signed an agreement with the Kalyani groups of India for the construction of Bengaluru-Mysuru Express Highway to be executed by the Kalyani Group of Companies on

its own investment, to be maintained for 30 years, handing it over in motorable condition to the State Government after recouping the expenditure incurred along with profit by way of toll fixed in consent with the State Government at regular intervals. The Bengaluru–Mysuru Infrastructure Corridor (BMIC) also called NICE road (111 km length - 69 minutes journey) is a proposed 4 to 6 lane private tolled express highway that intends to connect the two important cities of Bengaluru and Mysuru. This is being constructed by Nandi Infrastructure Corridor Enterprises (NICE) chaired by Ashok Kheny on Build-Own-Operate-Transfer (BOOT) basis. The NICE peripheral road is available to public over since years. This is a tolled road connecting all important highways going out of Bengaluru at particular intersections. This is a huge project. What we have now is the outer Peripheral road linking Hosur road and Tumakuru road. On Tumakuru road, the NICE road starts near BIEC (Bengaluru International Exhibition Centre) – has an intersecting at Magdi road, Mysuru road, Bannerghatta road and Kanakapura road. Though this 41 km road is a tolled road, it has helped many people to avoid Bengaluru's traffic mess. It also keeps trucks away from the city roads. The Hosur Road-Bannerghatta Road (8.744 Km.); Bannerghatta-Kanakapura Road (6.791 Km.); Kanakapura-Clover Leaf1/C (4.365); Clover Leaf1/C-Mysuru Road (3.880 Km.); Mysuru Road-Magadi Road (9.545 Km.); and Magadi Road-Tumakuru Road (7.475 Km.) called Peripheral roads (41 Km.); and a Link Road (8.1 Km.) are tolled roads maintained by NICE.

Transport Department: Till 1989, called as Motor Vehicle Department, it was started in 1957 and entrusted with the work of registration and tax collection of motor vehicles, issuing of permits, driver's and conductor's licenses etc., to the public in accordance with the provisions of 1) The Motor Vehicles Act, 1988 (Central Act 59 of 1988), 2) Central Motor Vehicles Rules 1989, 3) The Karnataka Motor Vehicles Rules 1989 4) The Karnataka Motor Vehicles Taxation Act 1957 (Karnataka Act 35 of 1957) and 5) Karnataka Motor Vehicles Taxation Rules 1957. The transport commissioner is the head of this Department assisted by 6 joint commissioners, 5 Deputy Commissioners, 43 Regional Transport officer as well as other officers and staff. The State has 43 Regional transport offices and 13 Assistant Regional Transport offices. At the time of integration

of Karnataka, there were 25,976 registered motor vehicles. Their total number stood at 17,18,494 in 1992-93. Among the vehicles, the two wheelers were 12,30,200 and 1,59,888 were motor cars. Besides Commercial Vehicles, those on the farm front too, received a boost with the increase in the number of tractors from 20,561 in 1956-57 to 52,592 in 1992-93. The total number of motor vehicles in the state as on 31-3-1994 was 1,87,537 which included 1,67,207 motor cars, 20,237 buses (including 16,190 K.S.R.T.C. buses) and 81,869 goods carriers. As on December 1999, there were 32,60,663 registered motor vehicles in the State. They include 23,38,021 two wheelers, 3,00,687 Motor Cars, 38,990 Jeeps, 16,711 Cabs, 1,16,487 goods vehicles, 27,743 Omni Buses, 1,40,238 Autorikshaws, 20,876 K.S.R.T.C. Buses, 6,302 Private Buses, 98,406 Tractors, 99,015 Trailers, 574 Contract Carriers, besides 56,713 other vehicles with an overall increase of 9.17% during 1998-99. By March 2000, there were 33,51,076 motor vehicles registered in the state with Bengaluru division having highest number (17,84,812) of registered motor vehicles in the State. The same had gone upto 44,61,105 by the end of March 2003. It included 32,45,652 motor cycles and scooters, 4,28,437 motor cars, 24,032 cabs, 1,74,151 Autorikshaws, 40,930 Omni buses, 1,48,025 goods vehicles and 3,99,878 other vehicles. By 2007 March, the state had 69,39,710 registered vehicles and among the districts, if Bengaluru tops the table with 27,60,766 registered vehicles, Chamarajanagar with 45,530 registered vehicles touched the bottom. The Transport Department is one of the major revenue earning departments in Karnataka and the following table gives the district wise Registered Motor Vehicles as on the December 1999, March 2003, 2007, 2008, 2009 and 2011. At the end of March 2011, in Bengaluru urban district with 37,91,318 registered motor vehicles occupies the first place and Yadgir district with 54997 registered motor vehicles occupies the last place. By March 2012 the total number of vehicles registered in the state has increased to 1,09,09,000, and by the end of 2012 August, it further increased to 1,13,93,000. As on March 2014, altogether 1,33,35,106 registered vehicles were in State, with Bengaluru Division (62,67,965) Mysuru Division (14,65,781), Shivamogga Division (20,06,980), Belagavi Division (23,25,691), and Kalaburagi Division (12,68,689) having registered vehicles as mentioned in the brackets.

District wise Registered Motor Vehicles in Karnataka

Sl. No.	District	December 1999	March 2003	March 2007	March 2008	March 2009	March 2011
1.	Bengaluru (Urban)	11,69,461	13,70,291	2,70,076	30,09,565	32,40,740	37,91,318
2.	Bengaluru (Rural) (including Ramangar dt.)	1,35,982	1,42,403	1,93,776	1,97,155	1,08,633	1,22,594
3.	Ramanagar	Newly formed in 2007			1,01,187	2,03,454	2,42,472
4.	Chitradurga	42,881	59,425	92,841	1,05,050	1,19,541	1,48,934
5.	Davanagere	94,514	1,30,244	1,85,322	2,03,772	2,48,744	2,88,132
6.	Kolar (including Chickballapur dt)	89,391	1,19,246	1,84,073	1,35,307	1,46,414	1,49,270
7.	Chickballapur	Newly formed in 2007			62,261	71,578	88,150
8.	Shivamogga	1,07,743	1,50,025	2,14,542	2,32,320	2,26,499	2,87,944
9.	Tumakuru	98,561	1,36,691	2,14,349	2,41,804	2,70,126	3,15,155
10.	Belagavi	2,20,781	3,00,082	4,33,038	4,67,354	4,80,692	6,13,895
11.	Vijayapura	49,430	78,700	1,11,826	1,23,888	1,25,917	1,52,609
12.	Bagalkot	51,383	73,573	1,19,507	1,34,458	1,50,494	1,86,611
13.	Dharwad	1,30,528	1,69,677	2,43,744	2,65,042	2,62,984	3,38,481
14.	Gadag	32,916	42,573	61,944	67,897	75,005	89,345
15.	Haveri	36,739	59,583	92,961	1,02,398	1,14,522	1,44,016
16.	Uttara Kannada	69,871	97,952	1,33,369	1,44,583	1,68,200	2,00,484
17.	Ballari	89,208	1,20,811	1,88,011	2,20,135	2,28,203	2,92,691
18.	Bidar	37,319	50,341	74,453	83,163	90,964	1,01,836
19.	Kalaburagi	80,629	1,21,189	1,83,699	2,04,307	1,83,234	2,12,779
20.	Yadair	Newly formed in 2000				45,123	54,997
21.	Raichur	40,057	61,684	98,364	1,00,436	1,23,445	1,55,306
22.	Koppal	25,594	3,91,779	62,716	69,203	79,561	99,063
23.	Chikm.agalur	53,327	71,280	1,05,077	1,16,890	1,28,044	1,56,258
24.	Dakshina Kannada	1,46,709	1,95,444	2,85,241	3,13,462	3,61,502	4,23,409
25.	Udupi	58,531	84,146	1,26,566	1,39,228	1,53,044	1,81,186
26.	Hassan	66,089	89,737	1,38,675	1,54,679	1,70,864	2,02,203
27.	Coorg	41,765	47,267	63,934	69,723	76,413	88,638
28.	Mandya	51,968	71,233	1,11,127	1,29,240	1,46,327	1,68,883
29.	Mysuru	2,20,281	2,81,637	4,14,088	4,53,543	4,35,352	5,64,755
30.	Chamarajanagar	19,005	2,60,911	45,530	52,048	58,583	69,069
	STATE TOTAL	32,60,663	44,61,15	69,3910	75,19,098	82,94,202	99,30,483

**Division Wise Vehicles Registered And Kept For Use
In Karnataka State As On 31-03-2014**

SL. NO	CATEGORY OF VEHICLES	BENGALURU DIVISION	MYSURU DIVISION	SHIVAMOGGA DIVISION	BELAGAVI DIVISION	KALABURAGI DIVISION	TOTAL IN KARNATAKA STATE
1	TWO WHEELERS						
a	Scooter	746784	445389	504821	250614	105196	2052804
b	Moped	751955	272640	491890	740406	177998	2434889
c	Motor cycle	2892273	381517	398553	714417	659439	5046199
	Total	4391012	1099546	1395264	1705437	942633	9533892
2	Cars	1068916	123786	200561	126927	52331	1572521
3	Jeep	8583	7924	12684	7206	7890	44287
4	Omni buses	52821	9841	12060	30268	15394	120384
5	Tractors	70334	54272	80208	131237	77157	413208
6	Trailors	43155	33590	55649	105029	45678	283101
7	Construction Equipment vehicle	3417	508	3047	1124	564	8660
8	Other vehicles	28602	9552	15839	11642	3838	69473
	Total Non-Transport	5666840	1339019	1775312	2118870	1145485	12045526
9	TRANSPORT VEHICLE						
a	Multi Axled Articulated	36140	2086	5617	6948	3225	54016
b	Trucks & lorries	69796	22193	49875	39998	25111	206973
	Total	105936	24279	55492	46946	28336	260989
10	LIGHT GOODS VEHICLES						
a	Four Wheelers	74324	22636	29112	37452	17244	180768
b	Three wheelers	50235	15109	16559	18671	12924	113498
	Total	124559	37745	45671	56123	30168	294266
11	BUSES						
a	Stage Carriages	17576	4379	4940	8646	2715	38256
b	Contract Carriages	1326	107	160	312	197	2102
c	Private Service Vehicle	8666	397	3078	583	502	13226
d	Educational Institution Buses	9377	1027	1161	770	1162	13497
e	Other Buses	5909	118	1778	438	205	8448
	Total	42854	6028	11117	10749	4781	75529
12	TAXIES						
a	Motor cabs	48028	9356	22349	15722	9338	104793
b	Maxi Cabs	31716	6378	14486	10498	6712	69790
c	Other Taxies	5071	688	702	33	150	6644
	Total	84815	16422	37537	26253	16200	181227
13	LM V(psngr)						
a	Three Seaters(A/R)	165044	27794	51403	42442	25882	312565
b	Four to Six Seaters	27605	1741	3928	1985	1320	36579
	Total	192649	29535	55331	44427	27202	349144
14	Other vehicles not covered above	50312	12753	26520	22323	16517	128425
	Total Transport	601125	126762	231668	206821	123204	1289580
	Total Trans+Non-Transport	6267965	1465781	2006980	2325691	1268689	13335106

The transport department has been issuing computerized documents in all its 56 Regional Transport Offices of the State, since 25-06-2009 and smart cards using micro processor based 15 KB chip inserted in plastic cards were issued for Driving Licenses and Motor Vehicle Registration Certificates. At the end of March 2011, 16 lakh Motor Vehicle licenses, and 15 lakh Motor Vehicle Registration with a total of 31lakhs smart cards were issued.

The Transport Commissioner is the Chairman of the Karnataka State Transport Authority, a Quasi-Judicial body, in accordance with section 68 of the Motor Vehicles Act, 1988. This Authority has two other official members also and it grants permits to tourist or passenger vehicles or goods carriages as per Inter-State Agreements. The District Regional Transport Authorities under this State office, grants permit to the transport vehicles or renew or cancel them. The Deputy Commissioner is the chairman of the District with Superintendent of Police as member and Regional Transport Officer as Ex-Office Secretary.

In accordance with section 56 of Motor Vehicles Act of 1988, transport vehicles are expected to possess permits and as such permits are issued as per rules to transport vehicles during the Registration and within a stipulated time after inspection by the officers. Accordingly during 2010-11, 2,03,208 permits have been issued and 3,70,148 permits were renewed with a revenue collection of ₹.19.07 crores.

Registration Certificate issued to registered non-transport vehicles as per section 41 of Motor Vehicles Act 1988 valid for 15 years has to be renewed for next 5 years. During 2010-11, 69,821 Registration Certificates have been renewed and ₹.1.09 crores of revenue was collected through fees and fines.

This department is authorized to issue both Driver's and Conductor's Licenses and by the end of December 1990, 28,12,183 driver's and 3,84,679 conductor's licenses were issued. Likewise, by December 2002, they went upto 35,56,560 and 7,30,797 respectively. They went on increasing and as on 2011 March there were 94,61,161 driving licenses and 723016 conductors licenses in the State. As on March 2008, they had gone upto 62,71,528 and 9,45,869 respectively. Under the scheme of issuing Plastic Driving License Cards,

the Transport Department had issued 2,40,285 Blue Plastic Cards for two wheelers, 40789 Green Plastic Cards to LMVs, 1,53,219 Red Plastic Cards to both two wheelers and LMVs and 5,667 Khaki Plastic Cards to HTVs were issued since 1985. In cities like Bengaluru, Plastic license cards, being issued by using video image and superior quality cards is being given to the license holders.

Under South Zone permit scheme without the countersignature on the basis of single point tax remittance agreement for inter-state permit were made in Karnataka, Tamil Nadu, Andhra Pradesh, Kerala, Goa and Pondicherry State and centrally administered areas. In order to implement the Motor Vehicle Act of 1988 and to avoid loopholes in tax collection, there are 15 check posts in border areas of Attibele, Nangali, Bagepalli, Gowribidanur, Gundlupet, Talapadi, Humnabad, Aland, Kagganahalli (Nippani), Ramnagar, Jhalaki, Rayalpad, Chikkahole dam, Hagari, and Kagawadi. During 2010-11, ₹.6,956 lakhs of revenue were collected through these check posts.

Due to the growth of cities and employment opportunities and the increased use of petrol and diesel, in order to create public awareness on air pollution, the month of November every year is being celebrated as 'air pollution control' month, by the Transport department. In order to check air pollution environmental friendly autorikshaws, with four stroke engine, fitted with electronic digital meter and in order to easily identify the upper part with light yellow and the lower portion with green colour are encouraged by the Transport department.

In accordance with Motor Vehicle Act 1957, tax has been fixed for all motor vehicles suitable to use on road and persons owning 500 and more vehicles are categorized as Fleet Owners. The Transport Commissioner has the authority to fix tax for them. Excluding the Fleet vehicles, Regional Transport Officers and Assistant Regional Transport Officers have powers to fix tax for other vehicles. The Karnataka State Road Transport Corporation is the only Fleet owner in the State. Life time tax is being imposed on two wheelers, vehicles with 5,500 Kg. of weight, passenger Autorikshaws including three wheeled vehicles, tractors used for agriculture, trailer, cars, jeeps, Omnibus of 5 Sq. meter and private service vehicles. Green tax is imposed on non-transport vehicles of more than 15 years and the tax collected is being

used for control of air pollution activities under the guidance of the Government.

As per the Central Govt. Motor Vehicle Act of 1989, to check air pollution, Transport Department has made Smoke Emission Control Test compulsory in the State since 1993 and as a result, there were 468 Smoke Emission Checking Centres in the State, of which 288 are in Bengaluru. Since January 1998, the government has restricted issuing Auto permits in Bengaluru City. Autorikshaw drivers' accident relief fund has been created to provide a relief of Rs.50,000 to the family of the auto drivers who die or permanently become disabled due to accidents. The department has earned revenue of ₹.320 crores at the end of December 1999 and by the end of March 2011, the revenue rose to ₹.2512 crores. Computerization of the department is under progress. Radio Taxi facilities being introduced in Bengaluru city to provide better transport facilities to the public and 126 radio taxis are serving on the roads of Bengaluru. It is proposed to provide the same facility even to the other important towns like Mysuru, Hubballi, Dharwad and Belagavi. As per the motor vehicle act, the department is insisting on the adoption of speed breakers to transport and goods vehicles and has made it compulsory from 2008. But the Goods vehicle owners have expressed their dissatisfaction over this issue.

During 2012-13, the Transport Department has further planned to control overloading in goods vehicles, weigh-in motion systems at Kognolli and Humnabad border Check posts will be established. Online collection of vehicle registration data from authorized dealers for rendering speedy services will be introduced. To test the skill of the candidates scientifically and accurately before granting them driving license, automated driving test track at Hassan, Kalaburagi and Bengaluru (Electronic city) RTOs jurisdiction will be established. Vehicle Inspection and Certification Centres at Mysuru and Dharwad RTOs jurisdiction will be established. For these initiatives, ₹.30 crore is being provided. Midway Plaza facilities will be established at important locations. ₹.30 crore is being provided for setting up truck terminals.

Road Accidents: Road accidents occurred during the last five years are alarming. During 2001-02, there were 33,000 accidents resulting in 5,805 deaths and 42,193 persons suffered injuries. During 2004-05 due to 38,869 accidents

6497 persons died and 50,395 persons were injured. In that year Bengaluru district with 9249 accident cases, resulting in 912 deaths and 6999 injuries. During the years 2010 and 2011, there were accidents with 775 and 751 deaths as well as 3363 and 3003 accidents with no loss of lives, respectively.

Public Conveyance

Prior to 1948, public conveyance was solely in the hands of private entrepreneurs. In earlier times, bullock, buffaloes, ass and horses were the main means of transport. Kavadis and Bullock Carts were used to carry goods. Bullock Carts and Horse Carriages transported people. In 1911, Public Traffic Control act was implemented in Mysuru and in 1920, there were already private buses serving the public. Around 1935, their number was 100. The Mysuru Traffic Board started in 1936 in old Mysuru area controlled the public conveyance.

After independence, when nationalization of roads was initiated in 1948, Mysuru State Road Transport Department (MGRTD) came into existence on 12th September 1948 with 20 buses. By 1949, it had 120 buses covering 81 schedules and 15,000 km. road mileage catering to 4000 passengers. Although the nationalization of Road Transport in Hyderabad State had been initiated as early as 1936, with the Hyderabad Nizam railway and the State Road Transport Department established during 1932, its impact was very limited. Contrary to this, in Bombay Presidency nationalization of Road Transport was implemented in 1948, was extended even to Belagavi Division in 1950 with the name "State Transport Corporation". At the time of Unification in 1956, it received 825 buses and 778 scheduled routes from Bombay, Hyderabad and Old Mysuru States. By 1957 it ranked fourth at national level with 1100 buses under its control. As per the Central Road Transport Corporation Act of 1950, this department became a Corporation of 1961 and after 1973 came to be called as Karnataka State Road Transport Corporation (KSRTC). By 1982, it ranked fifth at national level with five Regional Offices located at Bengaluru (2), Mysuru Belagavi and Kalaburagi, having control over 12 divisions and 68 depots. It has 5700 passenger buses covering 3,855 scheduled routes of 11.20 lakh km. route mileage per day and providing service to 20.9 lakh passengers.

In November 1985, the process of nationalisation of road was completed in Kalaburagi, Bidar, Vijayapura, Ballari, Hassan and Raichur districts and partial nationalisation being under taken in the districts of Kolar, Bengaluru {Rural and Urban}, Mysuru and Chikmagalur. By 1991, KSRTC had 6 Regional offices, 14 divisions and 91 Depot with 7,602 scheduled routes and 8,824 buses, with an annual income of 404.82 crores. As on March 1997, the KSRTC had 19 divisions, 109 depots with 8,493 schedules, 13,273 routes of 9.491 lakh km. route and 31.01 lakhs of daily km. service to the public with daily revenue of ₹.350.38 lakhs. On 15th August 1997, the government divided KSRTC into KSRTC (Old Mysuru-Hyderabad area), Bengaluru Metropolitan Transport Corporation (BMTc) (Bengaluru City); and on 1-11-1997, the North Western Karnataka Road Transport Corporation (NWKRTC) with its headquarters at Hubballi, Gadag, Uttara Kannada, Belagavi, Vijayapura and Bagalkot divisions was inaugurated.

Bengaluru Metropolitan Transport Corporation (BMTc) separated from KSRTC on 15-08-1997, is entrusted with the work of serving the public of Bengaluru Metropolitan City with sincerity and punctuality. Prior to its separation, it was looked after by Bengaluru city Transports (North and South divisions) through 13 depots with 1839 schedules, 1991 buses and a central workshop. BMTc covers Bengaluru city with 30km. radius and by March 1998 it had 2088 buses and 1934 schedules (740 city 925 sub-urban and 269 Pushpak schedules) with 4,42,953 scheduled route km. to its credit. In 2005 it has operated 2,285 schedules with a fleet strength of 2412 buses through 17 depots, 3 major bus stations, 8 sub-bus stations and one central workshop. Its total revenue for the year 1999-2000 was ₹.20,425.84 lakhs and is running under profit. During 2000-01, KSRTC has under gone further bifurcation and as a result the North-Eastern Karnataka Road Transport Corporation (NEKRTC), a separate independent corporation for Hyderabad-Karnataka area with its head quarters at Kalaburagi has come into existence. As a result, at present, KSRTC, BMTc, NWKRTC and NEKRTC are administering the transport services along with Private Agencies in the State. Daily city passes introduced at Bengaluru and Mysuru cities have received good public response. Besides the 7 days tourist pass scheme introduced the transport corporation is also noteworthy.



BMTc Bus stand, Majestic Bengaluru

The Karnataka State Road Transport Corporation with Bengaluru as its headquarters, has been operating in 17 districts of Southern Karnataka, with 12 divisions, 66 bus depots, 10 workshops, one press, 3 training centres and 124 bus stations, providing transport service to 13,330 villages with a workforce of 36758 and fleet size of 7783,. The Corporation has earned a revenue of ₹.1,746 crores in 2009-10 and ₹.2,078 crores in 2010-11. It is providing safe transport service in Tumakuru and Hassan districts. It is operating 25.74 lakh kms, per day earning a daily revenue of ₹ 6.71 crore, carrying 25.00 lakh commuters and also providing services to 13330 villages out of 20196 villages in the State. It is paying 5.5% of Motor vehicle tax on traffic revenue and during the year 2011-12 it has paid Motor vehicle tax of ₹.116.83 crores.

The reservation system is networked and computerized and tickets can be availed at designated kiosks in towns and cities. An on line reservation system called "AWAAR" has also been devised by KSRTC for public use. It is plying different category of buses viz., Airavatha (Volvo), Mayura, Rajahamsa, semi luxury, Meghadhoota semi-delux, Sheethal, Ambari, Mercedes Benz, Airavatha Club class, Moffusil Non-stop and Rural Transport services.

The North East Karnataka Road Transport Corporation has Kalaburagi as its headquarters with eight divisions, 43 bus depots, one Regional Workshop, two training centres and 113 bus stations. The Corporation earned revenue of Rs.663 crores in 2009-10 and Rs.864 crores in 2010-11. It provides transport facilities to Hyderabad-Karnataka region including Vijayapura Division. The Corporation is operating 3496 routes at the end of September 2012. It operates 12.20 lakh kms

per day with an average daily passengers carried at 13.08 lakh. The operating traffic revenue has increased by 12.27% in 2012-13 (end of September 2012) as compared to 2011-12. (end of September 2011). The profit earned by the Corporation at the end of September 2012, amounts to Rs. 1.75 crore as against to Rs. 2.68 crore loss incurred at the end of September 2011.

The North West Karnataka State Road Transport Corporation, has Hubballi as its headquarters, with 7 divisions, 46 bus depots, 136 bus stations and Regional Workshop and training centre at Hubballi. Belagavi, Dharwad, Uttara Kannada, Bagalkote, Vijayapura, Gadag, and Haveri districts with 44 taluks and 4,596 villages coming under its jurisdiction providing transport service to 4,428 villages. Apart from city and rural transport service it has provided Veghadhoot, Rajahamsa, Meghadhoota, Volvo and sleeper coach bus services in various State and Inter-State routes. The revenue earned during 2009-10 and 2010-11 was Rs.961 crores and ₹.1,032 crores respectively. During 2012-13 (end of September 2012) the Corporation has a workforce of about 21772 employees, operating 14.29 lakhs kms daily by utilizing fleet strength of 4744 with average vehicle utilisation of 345 kms daily and catering to 21.05 lakh passengers on an average. The total loss incurred by NWKRTC in 2011-12 has reduced to ₹. 23.43 crore from ₹. 30.44 crore in 2010-11.

The Bengaluru Metropolitan Transport Corporation (BMTc) is providing bus transport facilities in Bengaluru. It has been operating in two categories as city transport and sub-urban transport comprising of five divisions such as East, West, North, South and Volvo. Various models of Vajra, Vayu Vajra, Pushpak, Suvarna, Big-10, Big circle, Atal transport, Marcopolo, A.C., Metro Feeder Transport service are being provided to commuters. It has 37 bus depots and 48 bus stations. During 2009-10 and 2010-11, the Corporation has earned a revenue of Rs.1,131 crores and Rs.1,329 crores respectively. As on 30-09-2012, the Corporation operated 2405 routes covering 12.60 lakh kms per day. The average number of passengers carried per day is 48.00 lakhs, The increase is by 10.35% to the average number of passengers carried per day as on 30-09-2011. Its traffic revenue increased by 6.41% at the end of September 2012-13 as compared to the end of 2011-12.

In order to reduce traffic congestion and air pollution and to create public awareness for the use of public transport, 4th February 2010, has been observed as 'Bus day' and from that day onwards, on 4th of every month is being observed as 'Bus day'. The following table reveal its status, as prevailed in September 2012.

Passenger fleet strength and Utilisation by different Corporations

Item	2011-12,				2012-13(Upto September 2012)			
	KSRTC	BMTc	NWKRTC	NEKRTC	KSRTC	BMTc	NWKRTC	NEKRTC
No. of Buses at the end of the year	7749	6449	4403	4538	7783	6466	4744	4344
Percentage of overaged Buses	4.70	4.80	15.90	11.60	5.70	6.50	15.80	11.50
Fleet utilisation (Percentage)	91.9	94.2	94.4	89.0	91.9	90.6	92.9	89.6

Buses run by private persons are allowed to operate in few districts of Karnataka. Inter district transportation are run by private operators, connecting capital Bengaluru and main cities like Mangaluru and Dharwad to district head quarters. Intra district transportation by private operators is currently allowed in Dakshina_Kannada and Udipi districts. Omni bus and Maxi cabs are also other modes of road transportation in the state, especially where KSRTC does not run buses or run very few. Union Ministry of Road Transport and Highways has proposed 5 Greenfield Access Controlled 6/8 lane expressways for the state. These expressways are Greenfield projects for which fresh land will be acquired and new alignment will be drawn. These roads will have different alignments and it will not overlap the existing national highways on the same route. The proposed expressways are Mangaluru-Karwar-Panaji (400 km), Honnavar-Shivamogga-Bengaluru (325 km), Chitradurga-Solapur (400 km),

Bengaluru-Mangaluru (360 km) and Bengaluru-Coimbatore (402 km).

Devaraj Urs Truck Terminal Corporation

In order to provide facilities for lorry/truck transportation, on National Highways of Bengaluru and other cities of the State, the State Government has established Devaraj Urs Truck Terminals Ltd., Company under the Companies Act of 1956 and truck terminals were constructed in Mysuru, Dharwar, Bengaluru, Hosapete and Hubballi. Apart from this, it is proposed to construct truck terminals in prominent cities of Hassan, Chickmagalur, Raichur, Mangaluru, Kalaburagi, Belagavi, Gadag, Kolar, Shivamogga, Davanagere and Chitradurga.

Namma Metro: In order to control the traffic pressure on the roads of the Bengaluru Metropolitan City, a modern MRTS (Mass Rapid Transit System) that not only integrates the existing transport systems but also offer solution to the problem. The State Government has Commissioned Delhi Metro Rail Corporation (DMRC) who with the help of Rail India Technical and Economic Services (RITES) conducted a study. It concluded that in Bengaluru it will complete with its projected Peak Hour Peak Direction trips for 40,000 people by 2021. Hence it recommended for Metro Rail System, to be planned and executed in two phases. To begin with it identified two main corridors to be built under phase I of Bengaluru Metro. Although there were several proposals for this project, since 1982, Delhi Metro Road Corporation in partnership with RITES prepared a detailed project report for Bengaluru metro rail phase I in 2003 at the instance of the state government. It proposed a two double line corridors viz., East-West and North-South corridor with a total length of 33 km. At present it is extended upto 42.3 km.

The Bengaluru Metro Rail finally took shape with the Karnataka Government clearing the project in March 2005 and union government giving its accord in April 2006. Among the two metro corridors, the east-west corridor of 18.10 km. long line starting from Byappanahalli Passes through old Madras Road, C.M.H. Road, Ulsoor, Trinity Circle, M.G.Road, Cricket Stadium, Vidhana Soudha, Central College and after touching Majestic and City Railway Station continue towards Tollgate, Hosahalli, Vijayanagara, Attiguppe, Deepanajali

Nagar and terminates at the Mysuru Road. The North-south corridor of 24.20 km. long beginning from Yeshwanthpur terminal, passes through Soap Factory, Mahalakshmi layout, Rajajinagar, Kuvempu Road, Malleswaram, Swastic and after touching Majestic proceeds further via Chickpet, City Market, K.R.Road, Basavanagudi, National college, Lalbagh, Southend Circle, Jayanagar passing through R.V.Road, Banashankari, J.P.Nagar and terminate at Puttenahalli. Out of the 42.30 route 9 km. will be underground near Majestic, City Railway station, City Market, Vidhana Souda and Swastik. The rest will be formed in overbridge tracks.

Phase II: The detailed project report (DPR) for Phase II was prepared by the Delhi Metro Rail Corporation. The high power committee (HPC), in July 2011, gave in-principle clearance to proceed with Phase II. The Karnataka government gave in-principle approval to Phase II of the Namma Metro project on 3rd January 2012. The estimated total cost for Phase II is around ₹.264,051.4 million (US\$4.5 billion). Phase II covers a span of 72.095 km (13.79 km underground, 0.48 km at grade



Metro Station, M.G. Road, Bengaluru



Metro near M.G. Road, Bengaluru

and 57.825 km elevated) and adds 61 stations to the network ; of which 12 are underground. Construction of the second phase will be taken up in 2014 after completing the first phase and it will be opened for service from 2017. Phase II consists of extensions of all four reaches of the metro and 2 new lines.

New Lines: The RV Road to Bommasandra line, on the outskirts of the city, will have 16 stations (RV Road, Ragigudda temple, Jayadeva Hospital, BTM Layout, Silk Board Junction, HSR Layout, Oxford College, Muneshwara Block, Chikkabegur, Basapura Road, Hosur Road, Electronic City-1, Electronic City-2, Huskur Road, Hebbagodi and Bommasandra). The cost of this route is pegged at Rs.57.44 billion (US\$990 million). The one between Gottigere-IIM-B and Nagavara will have 18 stations with six elevated and 12 underground stations. The elevated stations include Gottigere, Hulimavu, IIM-B, JP Nagar 4th Phase, Jayadeva Hospital and Swagath Road Cross. The 12 underground stations will be constructed near Dairy Circle, Mico Bosch, Langford Town, Vellara Junction, MG Road, Shivajinagar, Cantonment Railway Station, Pottery Town, Tannery Road, Venkateshpura, Arabic College and Nagavara. The estimated cost of this corridor is Rs. 110.14 billion (US\$1.9 billion).

Extensions: Byappanahalli to Whitefield (extension of east-west line): This corridor has 14 stations—Jyothipuram, KR Puram, Narayanapura, Mahadevapura, Garudacharpalya, Doddanakundi, Visvesvaraya Industrial Estate, Kundalahalli, Vaidehi Hospital, Satyasai Medical Institute, Kadugodi, Ujwala Vidyalaya and Whitefield. Mysuru Road terminal to Kengeri (extension of east-west line): This corridor has five stations. Nayandahalli, Rajarajeshwari Nagar, Bengaluru University Cross, RV College of Engineering and Kengeri Hesaraghatta Cross to Bengaluru International Exhibition Centre (BIEC) on Tumakuru Road (extension of north-south line), has three stations. Manjunathanagar, Jindal and BIEC terminal. The BMRC has asked BIEC to share the cost as it would be the main beneficiary of this extension. Puttenahalli Cross to Anjanapura township, up to NICE crossing (extension of north-south line). This corridor has five stations. Anjanapura Road Cross, Krishnaleela Park (Iskcon), Vajarahalli, Talaghattapura and Anjana Township.

Proposal for Phase III

Close on the heels of the in-principle approval for Phase II of the project, Bengaluru Metro Rail Corporation (BMRC) has begun talking about the city needing a Phase III of this mass rapid transit project. Bengaluru requires at least 250 kms of metro lines to ideally connect areas on the ring routes and outlying regions with the central business district, commercial hubs and prime work places.

The construction work of 6.75 km.s length of Byappanahalli-Mahatma Gandhi Road of network of phase 1 has been completed and the metro rail service has been started from 20-10-2011. The track would be standard gauge of 1,435 mt. The journey time between north-south corridors will be 33 minutes and that east west corridor will be 28 minutes. It is designed to a maximum train speed of 80 km.ph.

The Metro has been designed for a capacity of 40,000 passengers during peak hours. The daily passenger traffic which was 10.20 lakhs in 2011 is expected to 16.10 lakhs by 2021.

The total project outlay envisage of the project is Rs.6398 crores which is to be met out through equity, subordinate debt and senior term debts to be borne in the ratio of 30%, 25% and 45% respectively under the revised scheme, it is estimated that Rs.11,609 crores and 720 crores for formation of over bridge roads and Rs.25 crores for formation of under ground tunnels. It is estimated that Rs.30.40 crores for each railway station and Rs.30 crores for each compartment.

The total land required for the project is 202.22 acres comprised of 138 acres of central government land, 32.22 acres of state government and 27 acres of private lands and the land acquisition process by the state government is almost nearing completion.

It has been a year since the much-hyped and awaited Bengaluru Metro began commercial operations in the city. Running across a 6.7 km stretch between the MG Road & Byapanahalli in the east, the metro ferries around 22,000 passengers daily & has to some extent, eased the pressure off the notorious traffic situation in the city.

Currently Reach I of the East-West corridor, from Baiyappanahalli to Mahatma Gandhi Road, is functioning. The rest of Phase I was expected

to be completed in stages. Reach 3 and Reach 3a, connecting Sampige Road to Peenya Industrial Area, on the north part of the North-South corridor has also started functioning. The first green line train was put on 1.2-km test track at the Peenya Depot, here on Wednesday. According to BMRCL, of the 29 green train sets required for the North South corridor, and of them three have been supplied to the Peenya depot. However it was expected to commence since Dec 2012, yet to be operated.

RAILWAYS

The first railway line in the old Mysuru Area was from Bengaluru to Madras (Broad-gauge -1,676 (5 ft. 6 in.) mm.), laid by the Madras Railway Company and was opened for traffic in August 1864. In 1877-78, construction work of another important section, Bengaluru-Mysuru (Metre-gauge - 1,000 (3 ft 3 38 in.) mm) line of about 138 km. long was taken up and completed in three stages and commissioned in February 1882 by spending a sum of ₹.55.48 lakhs. The Metre-gauge section between Bengaluru to Tumakuru was started in October 1882 and about 69 km. line was opened for traffic in 1884. Later it was extended to Gubbi (18 km.) in December 1884. The Southern Marata Railway undertook the construction work of Harihara-Birur and Birur-Gubbi sections and both these sections were opened for traffic in 1889. The Pune-Harihara line traversing through Belagavi and Dharwad districts was laid in 1882 and completed during 1887. Goa was linked up with Londa in Belagavi district. As a result, direct link was established between Pune-Bengaluru via Harihara. The Birur-Shivamogga-Bidare line having distance of about 64 km., was constructed by the Princely government itself in 1899. This



Old Railway Engine, Railway Museum, Mysuru

line linked Shivamogga with the Bengaluru-Harihara sections. For speedy execution of the works, State Railway Construction Department was set up June 1912. The Mysuru-Arasikere Metre-gauge line of 165 km. taken for construction in 1916 was completed and commissioned in 1918. Due to the keen interest taken by the State in developing the railway network, the total length of the railway line rose from 657.8 km. in 1911-12 to 913 km. in 1923-24. Later Birur-Shivamogga line was extended in stages upto Talguppa (1940), a distance of about 161 km.

In Gulbara area, the Guntakal-Raichur-Kalaburagi-Sholapur lsection was laid during 1861-1871, to connect Bombay and Madras Presidencies. Another Broad-gauge line, passing from Wadi-Secunderbad via., Chitapur and Sedam (43 km. in Gulbara district) was commissioned for traffic in 1874 and a vital link was established between Hyderabad, Madras and Bombay. The Ballari-Hosapete line was laid in 1884 followed by the Metre-gauge track between Hubballi and Hosapete laid in 1885 which linked the southern states. The broad-gauge line of the Vikarabad-Parli-Bajinath section, runs through Bidar district for a distance of 178.73 km., started operating since 1932

Dakshina Kannada had only 12.87 km. railway track leading towards Madras before 1956, when the Hassan-Mangaluru railway line opened for traffic in 1979, the length of the railway line in the district went up. Before 1951, the present Karnataka State was served by the then Madras and Southern Maratha Railway, the South Indian Railway, Mysuru State Railway, Nizam's State Railway and Great Indian Peninsular Railway systems. In 1951, the Railways were taken over by the Central Government and Railway Zones were formed. The southern Railway was formed on 14-4-1951 with its headquarters at Madras; and in October 1966 South-Central Zone, with its headquarters at Secunderbad was created.

At the time of unification of the State in 1956, the length of Railway line was 2,595 km. Out of which Broad-gauge was 352 km., Metre-gauge 2,080 and Narrow gauge (762 (2 ft. 6 in) mm.) 163 km. The Indian Railways have undertaken modernization and many development programmes for the expansion of the railway network in the country. Under the uni-gauge programme, 178 km. metre-gauge tracks between Dharmavaram-Bengaluru

was converted into Broad-gauge and opened for traffic in January 1985. Similarly the Mysuru-Bengaluru Broad-gauge line of 138.25 km. was opened for public traffic on 16th April 1993 by spending a sum of Rs.134.26 crores. Railway Workshop at Ashokapuram (Mysuru) is being modified to handle Broad-gauge rolling stock. Some of the railway lines converted into broad-gauge and opened for traffic are Bengaluru City-Yeshwanthpur-Yelahanka (17.50 km.), Ballari-Rayadurga (54km.), Bengaluru-Tumakuru-Arasikere- Shivamogga (in stages completed) and Rayadurga-Chitradurga-Chikjajur. Electrification work of the Bengaluru City-Jolarpet section was completed in 1992 and the first Electric Train was operated on 19th May 1992.

Broad gauging of 67.65 km. between Hotgi and Vijayapura is being completed and since May 1998, rails are on operation. The Vijayapura-Bagalkot-Gadag gauge conversion is also completed and the trains are running since 2009 January. The Mysuru-Arasikere line conversion is also completed and put to traffic from 1998. Hassan-Mangaluru gauge conversion work started in 1995 is completed and in the first phase train service upto Puttur (Mangaluru side) and Sakleshpur (Hassan side) was made available from 2005. But due to strong public opinion the railways have thrown open the Hassan-Mangaluru broad-gauge line for passenger movement since Dec.8th 2007 and daily night service trains have started plying between Yeshavanthapur and Mangaluru via, Mysuru-Hassan. The Railway service to Mangaluru via Tumakuru Arasikere and Hassan is yet to be flagged off.

The ambitious Konkan Railway Project for connecting Mangaluru with Roha was opened for freight traffic in 1996. The Mangaluru-Udupi line was started first and was extended to Kundapur in 1995. The 760 km. long line was opened for passenger traffic in December 1996. As a result, the distance between Mangaluru and Bombay was reduced by 1,200 km. and Mangaluru-Delhi by 800 km. In 1998 (31-3-98) the total length in the State was 3270 km. of which Broad-gauge is 2706 and Meter-gauge 564 km. The South Western Railway Zone was commissioned in October 2002 and Bengaluru was made its headquarters. But after Public Protest in North Karnataka, its Headquarters was shifted to Hubballi. It is one of the 17 railway zones in India. It comprises

Bengaluru, Mysuru divisions of the erstwhile Southern Railway and the reorganized Hubballi division of the erstwhile South Central Railway which includes Hosapete and Ballari. The division came into existence on April 1,2003. It covers most of the railway lines in the state of Karnataka. Belagavi – Bagalkote- Raichur, Belagavi-Dharwad, Belagavi-Sawantwadi, Bagalkote–Kudachi, Kottur-Harihar, Kadur–Chikkamagaluru–Sakleshpur, Munirabad–Mehboobnagar, Tumakuru–Chitradurga–Davangere, Shivamogga–Harihar and Tumakuru–Rayadurg lines are commissioned.

The track doubling work between Bengaluru and Kuppam has been completed and dedicated to the country in 2004. As on March 31st 2004, Karnataka had a total Railway route length of 3,270 km. of which 2,761 km. are of Broad-gauge and the remaining 509 km. are of Meter-gauge line. There were 354 railway stations in the state. At present (as on 2009 Jan) excluding Shivamogga-Talaguppa line all others are Broad gauge lines. The Broad-gauge conversion of Mysuru-Nanjangud and Chamarajanagar route was undertaken in 1997. In the first phase Mysuru Nanjangud work was completed in June 2008 and on Nov 2008, Nanjangud-Chamarajanagar railway work was completed and thrown open for traffic. No narrow gauge lines are operating in the State. Chickballapur-Kolar-Bangarpet narrow gauge track has been abandoned long back. Its conversion to broad gauge too being insisted by the local people and the work is under progress. As a result, (as on Jan 2009) except Kodagu, all other Districts in the State have the railway line passing through their jurisdiction and the railways are planning to implement the long standing demand for Mysuru-Madikeri rail line. Hubballi-Ankola line is also being planned.

The Bengaluru-Mysuru route has been taken for laying double track in phases. In the first phase, double line laying work is proposed upto Ramanagar and as the work upto Bidadi is completed, it is opened for traffic in March 2008. The remaining work up to Ramanagara is also completed recently and track service is made available to the public since November 2008. The work between Ramanagar-Channapatna-Settiahally is also completed and thrown open for public transport during 2012 and 2013. The laying of new railway line between Bengaluru and Hassan via Nelamangala, Yedeyur, Belur, Shravanabelagola

and Channarayapatna under progress and the work between Hassan-Channarayapatna and Sravanabelagola was completed in March 2006. Likewise, Bengaluru-Nelamangala line is also completed and opened for public use during April 2013. The remaining work of this route between Yedeyur, Belur and Shravanabelagola is under progress and needs to be completed briskly.

Progress on other sections is in full swing. The Bengaluru-Hubballi line is being doubled in isolated patches. While Bengaluru-Tumakuru was doubled and opened to traffic in 2007, progress on other sections needs speedy progress. The doubling of the Arsikere-Birur section of the same line was completed in November 2012. Ballari-Hosapete line is completely doubled and opened for traffic, Hubballi-Gadag line doubling is in progress.

A new survey is being conducted to connect Bengaluru with Chamarajnanagar via., Kanakapura, Malavalli and Kollegal. Amidst all these, the long pending rail route connecting Chamarajnanagar with Mettupalyam via Erode needs an early attention.

The Giant Wheel and Axle Plant, the only unit of its kind in the whole country was started at Yelahanka in 1984. This plant is manufacturing wheels and axles for the railway carriages with latest design and technology. It is playing a vital role in promoting the Indian Railways on progressive path. At present it is producing 1.35 lakh units of wheels and axles and the remaining 70,000 units required being imported from the other countries. In order to meet the domestic requirements the railways have decided to invest Rs.200 crores on this unit to enhance its production capacity to two lakhs from 2008-09. The factory has exported Rs.5.31 crores worth wheel axles to Africa, Senegal, America, Latin America and other foreign countries. Hence the railways have planned to start another unit at Chapad in Bihar State with one lakh unit production, very shortly. There is a railway Museum at Mysuru where several unique exhibits are displayed. The Railway workshop engaged in the production of rolling stock in respect of Meter-gauge. But, with the conversion of broad gauge, this section is no more existence.

A Bird's view of Railway Routes in Karnataka

Sl. No.	Railways line	Gauge	Km.	Beginning year	Broad Gauge Conversion year
01.	Bombay-Madras-(Sholapur-Kalaburagi-Raichur-Guntkal)	Broad-gauge	220	1861-71	-
02.	Bengaluru-Madras	Broad-gauge	88	1864	-
03.	Guntkal-Ballari	Broad-gauge	43	1871	-
04.	Wad-chitapur-Sedam-Secunderabad	Broad-gauge	43	1874	-
05.	Bengaluru-Mysuru	Metre-gauge	138	1881-82	1993
06.	Bengaluru-Tumakuru-Gubbi	Metre-gauge	87	1884	2001
07.	Ballari-Hosapete	Metre-gauge	87	1884	2001
08.	Hubballi-Gadag-Hosapete	Metre-gauge	144	1885	1995
09.	Gadag-Vijayapura-Hotgi-Sholapur	Metre-gauge	249	1885	2008
10.	Hubballi-Londa-Belagavi-Pune	Metre-gauge	115	1887	1995
11.	Harihar-Hubballi	Metre-gauge	129	1887	2000
12.	Londa-Marmgoa-Vasco	Metre-gauge	50	1888	1995

13.	Harihar-Birur-Gubbi	Metre-gauge	229	1889	2000
14.	Yeshwanthpur-Hindupur (upto Border)	Metre-gauge	83	1890	1983 Jan
15.	Mysuru-Nanjangud (upto Sujatha Mills)	Metre-gauge	24	1891	2008 Jun
16.	Bangarpet (Bowringpet)- Marikoppam	Metre-gauge	14.84	1894	-
17.	Sujatha Mills-Nanjangud	Metre-gauge	0.76	1899	2008 Jun
18.	Birur-Shivamogga-Bidare	Metre-gauge	61.15	1899	NA
19.	Ballari-Rayadurga	Metre-gauge	53.67	1905	NA
20.	Hosapete-Kottur	Metre-gauge	69.46	1905	NA
21.	Gunda Road Jn-Swamihalli	Metre-gauge	21	1906-07	NA
22.	Madras-Mangaluru (upto State Border)	Metre-gauge	12.87	1907	
23.	Bowringpet (Bangarpet)-Kolar	Narrow-gauge	17.60	1913	Broad Gauge
24.	Chikballapur-Yelahanka	Narrow-gauge	Abandoned	1915	NA
25.	Chikballapur-Kolar	Narrow-gauge	Abandoned	1915	NA
26.	Yelahanka-Yeshwanthpur- Bengaluru	Narrow-gauge	25	1918	
27.	Mysuru-Arasikere	Metre-gauge	165	1918	1998
28.	Dandeli-Alnavar	Metre-gauge	31.7	1919	NA
29.	Chikkajajur-Chitradurga	Metre-gauge	21	1921	NA
30.	Nanjangud-Chamrajanagar	Metre-gauge	35	1926	2008
31.	Shivamogga-Shivamogga Bidare	Metre-gauge	06	1929	Nov-2008
32.	Vikarabad-Parli-Baijanath (Bidar, Khanapur, Kamalapur)	Metre-gauge	78.32	1932	-
33.	Shivamogga-Talaguppa	Metre-gauge	93	1940	September 2012
34.	Guntakal-Hosapete (Separate-Line)	Broad-gauge	102	1966	-
35.	Hassan-Mangaluru	Metre-gauge	189	1979	2005
36.	Mangaluru-Mangaluru New port	Broad-gauge	11	1983	-
37.	Mangaluru-Roha (Konkan Express)	Broad-gauge	76	1996	-
38.	Bengaluru-Kuppam (double line)	Broad-gauge	N.A.	2004	-

* Excluding Shivamogga-Talaguppa line which is also under conversion all other railway lines are either Broad-Gauge line or else converted to Broad gauge. At present, excluding the abandoned Chikballapur-Kolar Narrow gauge line, the remaining Narrow gauge lines' Broad gauge conversion is under progress.

Electrification of Railway Route: The Electrification of Railway routes in India, including Karnataka is in progress since several decades. As on March 2009, among the total rail route of 63,273 km. in the Country Karnataka with 3005 km. rail ways has only 138 km. route length electrified, ranks 18th in the country. Karnataka has the least number of electrified and doubled broad gauge lines compared to other states in India (5%). This is mentioned in the official web page belonging to the ministry of Railways.



South Western Railway Zonal Map

Railway Route Length Electrified:March 2009

State	Total Route(Km.)	Eletrified(Km.)	Route % increase	Ranking
1 Andhra Pradesh	5171	2403	46.47	6
2 Bihar	3407	830	24.36	11
3 Chhatisgarh	1186	861	72.60	2
4 Gujarat	5328	723	13.57	15
5 Haryana	1467	373	25.43	10
6 Himachal Pradesh	285	23	8.07	17
7 Jharkhand	1965	1585	80.66	1
8 Karnataka	3005	138	4.59	18
9 Kerala	1050	540	51.43	4
10 Madhya Pradesh	4884	2037	41.71	7
11 Maharashtra	5535	2065	37.31	8
12 Orissa	2387	1317	55.17	3
13 Punjab	2133	419	19.64	13
14 Rajasthan	5683	600	10.56	16
15 Tamil Nadu	4131	1173	28.40	9
16 Uttar Pradesh	8553	1762	20.60	12
17 Uttaranchal	345	52	15.07	14
18 West Bengal	3951	1891	47.86	5
All India(incl.others)	63273	18942	29.94	-

Source: Indian Railways GOI Web site

Railways projects under Progress:- The state government has been actively supporting the railway projects in the state. A sum of Rs.100 crores has been provided in the 2008-09 budget for new cost sharing railway projects by sharing upto 2/3 of the total project cost. Sholapur-Gadag Gauge conversion projects (50:50 share) and with the rail movement Bagalkot-Gadag work is completed.

Shivamogga-Talguppa Gauge conversion project is taken up under 50:50 cost sharing basis with the railways and has made provision for ₹.100 crores Kottur-Harihara new railway (67 km.s) line projects is taken up under 2/3, 1/3 cost sharing basis. Ramanagar-Mysuru railway doubling is under progress. Bidar-Kalaburagi (104 km.s) new railway line is taken up under 50:50 cost sharing basis. Munirabad-Mehaboobnagar new railway line (190 km.) is taken up under 50:50 sharing basis.

The Mysuru-Bengaluru section upto Settihally (63 km) has been doubled and thrown open to traffic as of March 2013 . Progress on other sections is in full swing. The Bengaluru-Hubballi line is being doubled in isolated patches. While the line between Bengaluru-Tumakuru was doubled and opened to traffic, other sections of this route is in progress . The doubling of the Arsikere-Birur section of the same line was completed in November 2012. While the Ballari-Hosapete line is completely doubled and opened for traffic, Hubballi-Gadag line doubling is in progress.

Under the public participation the Government has approached the Railway Ministry to take up Hubballi-Ankola, Talaguppa-Shahabad, Vijayapura-Shahapur, Dharwar-Belagavi projects. Apart from this under the cost sharing basis of State Government and Railway Ministry Hassan-Bengaluru, Kadur-Chickmagalur, Kolar-Chikkaballapur, Kuduchi-Bagalkote, Tumakuru-Davanagere, Shivamogga-Harihara and Whitefield-Kolar projects have been taken up. At the end of March 2012, there are 3223.12 Km. of Broad-gauge, 21 KM. of Metre gauge railway lines and 367 railway stations in the State.

AIR TRANSPORT

The First aero plane flight in India was introduced in January 1911. The Tata and Sons Ltd., flew its aircraft for the first time in Karnataka

in October 1932. This flight was operated between Karachi and Madras with stops at Ahmedabad, Bombay and Ballari. Later, Deccan Airways of the Hyderabad Government operated a daily flight from Hyderabad to Bengaluru and back in 1946. On 1st August 1953, Airlines in the country were nationalized and Government owned Indian Airlines started connecting Bengaluru with various other cities in the country. The 'open skies' policy of the Centre has ended the monopoly of plying their aircraft between Bengaluru, Bombay, Delhi, Hyderabad etc., The private companies serving in the field were king fisher, Jet Airways, East-West Airlines, Damania Airways, Deccan Airlines, Sahara and Modi Luft. Apart from Bengaluru, the cities of Belagavi, Mangaluru, Mysuru, and Hubballi are also on the air map of the country.

Bengaluru Airport, constructed in an area of 865 acres of land which belongs to HAL and Airport Authority of India. In the Indian Airlines network, Bengaluru Airport ranks fifth in respect of revenue earnings. During 1992-93, on an average there were about 60,000 incoming passengers and 60,000 outgoing passengers at Bengaluru Airport per month and the incoming and outgoing cargo handled during 1992-93 was 5,104 and 6,711 M.Tonnes respectively. During 1992-93, the incoming and outgoing cargo handled by the Mangaluru Airport was 99 and 57 M. tonnes respectively. Direct flight to Perth (Australia) and Singapore have begun from Bengaluru from 1995. There is a proposal to construct an International Airport near Bengaluru at Devanahalli. The State run 'Flying Training School' was started in 1948 at Bengaluru to impart training to the youth in flying. This school is also undertaking joy flights, charter flights and also providing flying facilities to scientists and engineers of the defence. In 1991-92, of the nine candidates undergoing the training for commercial pilot's license, three of them have passed the course. At the same period 98 students were undergoing training for the private pilot's course.

It maintains a civil enclave on 20 acres comprised of domestic passenger terminal building suitable to maintain 700 departing passengers and the integrated international terminal building inaugurated in January 99, suitable to handle 700 domestic arrivals and 600 International passengers at a time, fully air conditioned built at an estimate cost of Rs.21.83 crores. It is equipped

with five escalators, four passenger elevators and staircase for transferring passengers from ground floor to first floor and vice versa. At present, it has all modern facilities. But with the inauguration of Devanahalli (2008 May) International Airport this airport has been closed.

Mangaluru Airport: The Mangaluru Airport is located at Bajpe 26 km. away from the district headquarters. It was started in 1951 by the civil aviation department, spreading over 140 acres of land suitable for Airport. In the beginning Dakota Plane service was made available once a week. But with the unification of Karnataka (1956), weekly trip to Bombay was started in 1957. In 1960, the airport was expanded to meet the needs of Arose flights. In 1972, daily service between Madras and Bombay via Bengaluru, Mangaluru and Belagavi was started. It resulted in 14 planes passing through Mangaluru Airport. In 1996 an office was started to receive the passport applications from aspirants at Mangaluru. At present daily service is available from Mangaluru to Mumbai, Bengaluru, Madras and other places. The flight services are operated by Indian Airlines, Deccan Airlines and Jet Airlines. A new runway to facilitate the requirement for international flights by the Indian Aviation Authority, the Airport is providing services of international standard.

Kempe Gowda International Airport Bengaluru: At Devanahalli the Bangalore International Airport has started working from May 24th 2008. This project commenced in July 2005, has green field spread over an area of 4000 acres. This has been developed as the first international airport in the country with ₹.2470 crores under public-private participations. It is being



Kempegowda International Airport, Bengaluru

managed by the Airport Authority of India. It has all the required facilities of an International Airport and is situated at a distance of 35 km. from Bengaluru City. Due to public demand, the Airport is being named after Kempegowda, the founder of Bengaluru city, very recently, by observing all formalities.

There is a proposal to provide High speed Rail link to the BIA located at Devanahalli. The government has planned to construct Airport at all District headquarters in the state. Improving and upgrading of Mangaluru, Hubballi and Belagavi Airports is under progress.

This airport was started in May 2008, has provided service to 9.8 million passengers in that year and at present serving 12 million passengers per year. This has 70,000 Sq. metres of terminal building and 4000 metre of runway. The Airport Authority has been trying to extend attractive service to its customers. A signal free traffic service is being provided to this airport from different parts of the city. During 2010-11, 5,63,748 persons travelled and 1,08,852 tons of goods transported.

Belagavi Airport: The airport at Belagavi is situated on SH.20, 12 Km away from Belagavi, the district headquarters, operated by Airports Authority of India .

Hubballi Airport: The Airport is situated 8 kms south west of Hubballi, operated by Airports Authority of India. The Plans are underway for the modernization and expansion of the airport into an all-weather airport.

Mangaluru Airport: Previously the Mangaluru Airport, also called as Bajpe Airport, is a customs and domestic airport, serve coastal Mangaluru city. Situated 20 km away from Mangaluru City, this airport was launched on 25th Dec. 1951, when Bajpe Aerodrome, was commissioned by Jawaharlal Nehru , the then PM having arrived on maiden air travel on Dakota DC-3 plane. In year of 2007-08, airports hold 10,019 airplane actions as evaluated to 6,268 earlier years; it handled total 8.04 lakh travellers during 2010.

Mysuru Airport: Also known as Mandakalli Airport is an airport serving the city of Mysuru. The airstrip in Mysuru was built in 1948. Due to commercial activity in the mid-1980s Vayudoot ran a feeder service. The city had been on the aviation map more than five decades ago, when a leading national newspaper used to drop its newspaper

bundles using a Dakota. Thereafter, it was linked with the rest of the country through Vayudoot services. However, it witnessed discontinuance of services. Thus defunct of commercial activity in the mid-1980s, when Vayudoot ran a feeder service. The city had been on the aviation map more than five decades ago when a leading national newspaper used to drop its newspaper bundles using Douglas_DC-3”Dakota. Thereafter, it was linked with the rest of the country through Vayudoot.

The airport was built at a cost of 82 crore. It was inaugurated by B. S. Yeddiyurappa, the Chief Minister of Karnataka on 15 May 2010. Jet Airways and Kingfisher_Airlines had shown interest in operating flights to the city.

The terminal building has a capacity to accommodate 200 passengers. The runway at the airport measures 1,858 m (6,098 ft). The state government has sanctioned funds to upgrade the runway length to anywhere between 2,400 m (7, 870 ft) to 2,600 m (8,530 ft). Meanwhile, a sanction has been already been given for the Rs 140 crore civil and electrical works of the second phase of the project. The second phase will include upgradation of the airport with an apron, setting up of air traffic control, meteorological department and upgrading the terminal. Once it is completed, the airport will be able to operate the Airbus_A320 and Boeing_737 aircraft.

After the airport was commissioned for operation in 2010, Kingfisher Airlines operated daily flights, connecting Mysuru with Chennai, Delhi, Mumbai via Bengaluru. Kingfisher operated its Kingfisher Red service to Mysuru. The flights operated with nearly 75% occupancy inbound to Mysuru, while the occupancy was said to be low in the outbound from Mysuru, resulting in Kingfisher Airlines cancelling the flights since November 2011. Chartered flights have been operating since the airport was recommissioned, with 150 flights operating in 2010 and on 31 December 2012, Spice Jet announced flights connecting Mysuru to Chennai, via Bengaluru from 14 January 2013.

Besides, the government has planned to develop four green-field air ports at Kalaburagi, Shivamogga, Hassan and Vijayapura. The government has planned to build airstrips for the landing of aeroplanes at Davangere, Raichur, Chikamagalur, Udupi, Madikeri-Kushalnagara,

Gokarana, Chitradurga, Bagalakote, Haveri, Gadag and Kollegala by providing a sum of Rs. 50 Crores during 2008-09.

Passport Office: A separate office for the State was established at Bengaluru on 12th June 1978, on the bifurcation of Regional Passport Office at Chennai. It is now located in No.I/A, Brunton Road, (across M.G.Road), Bengaluru. It is providing passport facilities to the people in Karnataka. The number of passports issued during 1978 was 17,146. It was enhanced to 1,23,150 in 1992.

By the end of 2000, out of the 1,31,769 fresh application received 1,28,943 were disposed of by issuing passports. Generally it takes 30 to 40 days to issue fresh passport. Under Tatkal Scheme, Passport is issued quickly by charging additional fees. Renewal of old ones, issuing of duplicate passport in case of lost and damaged passports and Emigration services are also extended to the public. Tele-Enquiry, Special counters etc., are opened to assist the public. “KIOSK” – Touch Screen System has been installed to know the position of passport applications. On-line Registration services started to help the working personnel living in different districts has been appreciated by the public. It has also launched a web-site of its own, which helps the public to know the position of other applications and objections if any. It has its passport application collection centers at Mangaluru started in 1996, and at Kalaburagi in February 2000. The Speed post passport services have also been launched at selected post offices in March 2001. Since then, the Passport office through its innovative services has reached the public more effectively. As a result of easy and on-line processing of passport applications, passport holders are increasing regularly since 2005.

The State has four Passport Seva Kendras, two at Bengaluru, one at Mangaluru and one at Hubballi. The Passport Seva Kendras were started with a good intention in Karnataka and Punjab States for quick issue of passports, in 2011 and the External Affairs Ministry has plans to extend this scheme to all over the country. In 2009, the Bengaluru Passport office daily received 1,226 passport applications, which was increased to 1,700 in 2010 and the passport office has been trying to issue passports quickly. Passport can be obtained through registered travel agents and at the end of April 2011, there were 104 registered travel agents recognized by the Passport office.

The details of passport fees are given below:

- 1) Rs.1000/- for new passport of 36 pages with validity of 10 years.
- 2) Rs.1500/- for new passport of 60 pages with a validity of 10 years.
- 3) Rs.600/- for new passport of 36 pages (for persons below 18 years) with a validity of 10 years.
- 4) Rs.2500/- for 36 pages or 30 pages of duplicate passport in case of damage or theft.
- 5) Rs.1000/- for change of address, name, place of birth, change of names of husband/wife/parents/guardians.

WATER TRANSPORT

Karnataka, a maritime State with a coastal line of about 300 Km. with 287 nautical km. covering Uttara Kannada, Udupi and Dakshina Kannada Districts of Coastal Karnataka. Water Transport which include Inland Waterways and Ocean Transport is crucial for the economic growth of the State, as it is cheap and also indispensable at places where there are no bridges. In earlier times rivers and seasonal streams were crossed by using the country boats, rafts, basket boats and ferries. In recent years mechanized boats and launches are also being used. The district of Uttara Kannada, Udupi and Dakshina Kannada are more favourable for Water Transport. Chronicles of the overseas travellers, mention of the foreign boats going even to the upstream of Barakur, Basrur, Gersoppe and Kadra. Navigation is possible in the waterways of the State only for short distances, particularly in some portions of the West flowing rivers, their esturies and backwaters. In Uttara Kannada district, some portions of the Gangavali, the Aghanashini, the Kali and Sharavathi are navigable. Navigable portions are found in the Halady, the Kubja, the Chakra and the Kollur rivers in Udupi District and the Udyavar, Netravathi etc., in Dakshina Kannda district.

Inland Waterways: With a view to have proper control and supervision over navigation and ferry services, Inland Waterways Branch was created in 1972 and attached to the Ports Directorate, situated at Karwar in Uttara Kannada District. Many ferry services are directly run by the Inland

Waterways. In 1981-82, there were 673 ferries in the state to cater to the needs of the rural population. Consequent on the construction of more roads and bridges in rural areas, the number of ferries, have come down to 477 in 1992. During VIII Plan period, an amount of Rs.60 lakhs was spent for the development of ferries. Even then by 2000 AD, the number of ferries was 378 in the State. Out of them, while 26 were maintained by the department, 42 have been given to private individuals on auction, and a sum of Rs. 2,73,110 was obtained as revenue out of it. By March 2011, there were altogether 334 ferries/boats operating in the State. Of them while 15 were managed departmentally and 47 have been given to Private agencies on auction. The remaining ferries/boats were managed by Zilla Panchayat, Tourism, Forest department and other private agencies.



Nada Doni



Daily Passengers, Boat Transport



Boat House

Statistics of Men and Materials Transported by the Departmental Ferries (2010-11) (in tons)

Particulars	1999-2000	2003-04	2006-07	2010-11
Passengers	11,41,954	39,76,570	7,88,727	15,04,492
Scooters/Motor Cycles	8,217	32,812	35,387	54,165
Rickshaws	46	67	04	-
Cars	2,248	2,837	10,238	26,537
Vans	940	1,806	1,322	3,850
Trucks	67	68	882	320
Buses	7,571	5,329	6,442	7,889
Carts	47	-	-	-
Jeeps	2,428	3,017	6,298	12,904
Cycles	8,827	32,812	27,470	38,141
Animals	2,356	719	677	347
Goods (in tonnes)	8,404	7,682.5	6,725.50	715.45
Estimated cost	-	-	45,40,751	71,66,664
Maintenance	-	-	46,01,015	49,44,122
Revenue collected	Rs.17,60,984	Rs.22,02,354	Rs.21,90,625	Rs.34,15,101
Estimated cost	-	-	Rs.45,50,751	-
Maintenance cost			Rs.46,01,015	

Source: Karnataka ports and IWT Dept., Karwar.

OCEAN TRANSPORT

There were no ports in the Old Mysuru State. Attempts were made to acquire and develop Bhatkal Port when Sir M.Visweshvaraya was the Diwan of Mysuru State. Finally, this proposal was shelved in 1923. After the integration of the States, Karnataka came to have 18 ports, in addition to the major ports of Karwar and Mangaluru. These ports are located in the coastal districts of Uttara Kannada, Udupi and Dakshina Kannada. They are Bhatkal, Shirali, Murdeshwar, Manki, Honavar, Kumta, Tadri, Ankola, Belikeri, Chendiya, Binaga, Karwar and Majali in Uttara Kannada. Mangaluru (Old Port), New Mangaluru Port (Panamburu) Malpe in Dakshina Kannada and Hangarakatta, Kundapur and Baindur in Udupi Districts. These ports could not get proper attention earlier due to the presence of major ports like Bombay and Cochin (Western Ghats) on the west coast along with Goa, though it was under the Portuguese.

In 1957, Mysuru Port Department was formed and a sum of Rs.18 lakhs was sanctioned to provide minimum Port facilities. The Karwar,

Belikeri and Honavar ports commenced exporting iron ore during 1957 and 1960. During the Third Plan period, the outlay was Rs.280.3 lakhs. The Centre accorded sanction for the development of New Mangaluru Port at Panambur into an all weather port. Also included in the Third Plan, was the scheme of developing Karwar into an all-weather port. The Fourth Plan outlay was Rs.128 lakhs. The minor ports saw increase in the traffic of general cargo and fisheries and cargo handling capacity of the ports reached 14.43 lakh tonnes. To cope up with the increase in the cargo movement, it was proposed to improve port facilities during Fifth Plan. The total investment proposed for Fifth Plan was Rs.850 lakhs. The proposed expenditure during the same period, by way of Central grant for the development of Karwar port was Rs.257.24 lakhs. The strategy during the subsequent Annual Plans was to complete on-going schemes, construction of wharves, jetties and other facilities, purchasing dredging machinery, installation of Navigational equipments etc. The traffic in nine ports exceeded 11 lakh tonnes annually.

Based on the traffic volume, Karwar port was taken up for development as an all-weather port, at a cost of Rs.8.5 crores under the State sector. Other ports selected for development due to more traffic potential were Belikeri, Tadri, Honavar, Bhatkal, Kundapur, Hangarakatta, Mangaluru old port and Malpe. A sum of Rs.1,750 lakhs was spent for the development of ports during the IX Plan period (1997-2002) in Karnataka . As against the allotted amount of Rs.350 lakhs for the year 1999-2000, only Rs.276.12 lakhs were spent on various activities.

As on March 2004, the state had 10 minor Intermediate Ports viz., Mangaluru (old), Malpe, Hangarakatta, Kundapur, Padubidri, Bhatkal, Honnavar, Tadri, Belekeri, Karwar (including Sadashivagad) and one major Port namely New Mangaluru Port. During 2003-04 under foreign trade by sea 2,53,505 tonnes of cargo worth Rs.24,406 lakh of imports and 7,13,859 tonnes of cargo worth Rs.23,730 lakhs of exports being done through the different ports of Karnataka. Under Coastal trade 85,528 tonnes worth Rs.5,082 lakh of imports and 1,14,726 tonnes worth Rs.4,425 lakhs was handled in the state.

Details of foreign transportation from Sea

Year	Import		Export	
	Goods (In tonnes)	Cost (In lakhs)	Goods (In tonnes)	Cost (In lakhs)
2008-09	54,863	6,093	47,25,444	1,64,818
2009-10	1,00,038	1,33,859	81,73,255	3,17,618
2010-11	84,482	2,03,976	27,78,116	1,57,31,546

Statistics of passengers from Ports

Year	No. of passengers		Total passengers
		Alighted	
2008-09	1,492	1,487	2,979
2009-10	791	377	1,168
2010-11	2,277	2,310	4,537

Import and exports through Ocean of State

Year	Import		Export	
	Goods (In tonnes)	Cost (In lakhs)	Goods (In tonnes)	Cost (In lakhs)
2008-09	92,834	20,31,203	94,981	6,199
2009-10	11,01,736	13,129	99,555	4,381
2010-11	99,766	21,566	1,32,970	7,729

Ports of Karnataka

Karwar Port: Karwar port has been considered as one of the finest natural ports in the world. It was predicated that the cargo movement through this port would be around seven million tonnes during 1995-96. The main export items are iron/manganese ore, granite blocks, agricultural, forest and marine products. Now it has also been declared as customs port and as an all-weather port. The total

cargo handled (both import and export) during 1999-2000 was 4,59,400 metric tonnes. During 2003-04, it handled 3,25,845 tonnes of imports and 6,26,352 tonnes of exports. Under Tenth five year plan (2006-07) a sum of Rs.2,800 crores has been allotted for the improvement of Karwar Port. During the first two years of this plan period a sum of Rs.781.11 lakhs has been spent for its improvement and development. During 2006-07 Rs.293 lakhs has been spent for improvement. It has earned a revenue of Rs.13.38 crores during 2006-07. It handled 2,716 thousand tons of goods traffic during 2007-08. During 2010-11, export of 9,58,460 metric tons of goods and import of 1,68,543 metric tons of goods were made earning a direct profit of Rs.9,72,39,325.

Belikeri Port: The Port handled exports of about 60,895 metric tonnes of iron/manganese ore, during 1992-93. A sum of 90 lakhs was allotted in the Eighth Plan for the development of the port. It is located about 30 km. to the South of Karwar in Ankola Taluk. It handled 96,960 tonnes of exports during 2003-04. Under the 10th Plan for its improvement a sum of Rs.6.58 lakhs has been spent during 2003-04. Rs.one lakh was spent during 2006-07 for its improvement. In 2010-11, 18,30,620 metric tons of Iron ore was exported from this port.

Tadri Port: The Port lies at the mouth of Aghanashini, about 54 km. north of Honavar. About 2,790 tonnes of silica sand was exported through this port during 1992-93. It reduced to only 610 metric tonnes during 1999-2000. It handled only 815 tonnes of exports during 2003-04. During the first two years of 10th plan period a sum of Rs.13 lakhs was spent for its development, Rs.10 lakhs being spent during 2006-07. During 2010-11, there were no commercial activities related to shipping.

Kundapur Port : It is located about 33km. to the north of Udupi, the district head quarters, at the confluence of Gangolli river. There was considerable movement of traffic through this port, prior to the development of Karwar port. About 5,538 metric tonnes of goods were exported from this port in 1992-93. About 46,445 metric tonnes of cargo was handled during 1999-2000. During the first two years of 10th Plan period, a sum of Rs.13 lakhs was spent for its development. No expenditure was made during 2006-07.

Padubidri : This is a newly declared port, located towards south from Hangarakatta. There were no overseas commercial activities from this port in 2010-11.

Bhatkal Port: In olden times Bhatkal was an important trading centre for foreign trade. This natural port, was a major outlet on the West Coast during Vijayanagara times. Bhatkal is situated about 40 km. to the south of Honavar and at the mouth of the Sharavathi river. Commercial traffic through this port is very negligible. A sum of Rs.8 lakhs has been spent for its development during the first two years of 10th plan period. Rs.4 lakhs was spent during 2006-07 for its development. During 2010-11, there was no overseas commercial activity.

Honavar: It is situated at the mouth of the Sharavati River and second important port after Karwar. The port has been developed during the successive Five Year Plans. Total exports handled by the port were 1,609 M.tonnes, during 1992-93. A sum of Rs.12.85 lakhs has been spent for its development during the first two years of 10th plan period. Rs.4 lakhs was spent during 2006-07 for its upliftment. During 2010-11, there were no overseas commercial activities.

Malpe: The Malpe port is located at the confluence of Udyavara River and lies 64 km. to the north of Mangaluru and five km. to the west of Udupi. About 17,700 tonnes of silica sand export were handled by this port in 1992-93. In 1999-2000, 17,105 metric tonnes of silica sand was exported from this port. It handled 1223 tonnes of Imports and 9650 tonnes of exports during 2003-04. A sum of Rs.148.67 lakhs has been spent for its development during the first two years of 10th plan period. Rs.66 lakhs was spent to improve the port during 2006-07. A sum of 148.67 lakhs has been spent for its development during the first two years of 10th plan period. Rs.66 lakhs was spent to improve the port during 2006-07. It handled only 14 thousand tonnes of goods traffic during 2007-08. In 2010-11, it handled commercial activity related to ocean.

Hangarakatta: This port lies at the mouth of the Sitanadi and at a distance of 22 km. south of Kundapur. During 1992-93, only 80 metric tonnes of cargo was exported from this port. A sum of Rs.2 lakhs has been spent during 2003-04 for its development. Rs. One lakh being spent to improve

it during 2006-07. During 2010-11, there were no overseas commercial activities.

Old Mangaluru port : No major development took place in the development of Mangaluru old port during the previous six plans. The old port is located about ten km. South of New Mangaluru Port at the Gurupura river bank and at the place where the rivers Gurupura and Nethravathi join sea and controlled by the State Government. By taking into account the transactions of this port and its Shipping needs, it was decided to develop the port at an estimated cost of about 12.5 crores, in the VII Plan, construction of wharf and dredging of inner channel were completed. Total imports and exports routed through this port in 1992-93, was 58,374 metric tonnes. This port also provided sea transportations to the Lakshadweep Islands. It handled 12,025 tonnes of imports and 94,808 tonnes of Exports during 2003-04. A sum of Rs.455.10 lakhs has been spent for its improvement during the first two years of the 10th plan period. Besides these, steps are being taken for the improvement of Old Mangaluru port. Government of India has accorded sanction for handling petroleum products through Karwar port. Container service has been introduced there to serve Northern Karnataka. During 2010-11, it handled 1,35,883 metric tons of goods and collected a total revenue of Rs.1,73,86,296/-. The Karwar, Belikeri, Tadri, Malpe, Honnavar, Bhatkal, Hangarakatta and Old Mangaluru Ports together have handled 3.12 lakh metric tonnes of exports and 2.27 lakhs metric tonnes of imports for the year 1999-2000. During 2003-04 they went upto 8.28 lakh metric tonnes and 3.39 lakh metric tonnes respectively. The old Mangaluru port has earned a revenue of Rs. 1.28 cores during 2006-07. Passengers traveling facility being used by 18233 passengers from the port. It handled only 76000 tonnes of cargo traffic during 2007-08. For the development of the Padubidri port a sum of Rs.99,000 has been spent during 2003-04. During 2006-07, a sum of Rs.230 lakhs being spent on various developmental activities. Nothing was spent during 2006-07 for the improvement of Padubidri port.

Among the minor ports Karwar, Belikeri, Malpe and Old Mangaluru ports have handled significant volumes of cargo. The considerable drop in cargo handled during 2011-12 & 2012-13 (upto Sept-12) is due to ban on Iron Ore Extraction. Towards

improving the infrastructure of the minor ports, an investment of Rs. Four crore has been made by September 2012. The construction of 2nd stage of Karwar port is proposed to be taken up through PPP mode and, appointment of Transaction Advisor is being done for the preparation of detailed project report. Anti-sea erosion works and flood control

works have been taken up and an expenditure of Rs 1.37 crore has been incurred upto September-2012. The Ports and Inland Water Transport Department is also implementing the Sustainable Coastal Protection Project with assistance from Asian Development Bank at Ullal in Dakshina Kannada District at an estimated cost of Rs. 223 crore. and the loan agreement has already been signed.

New Mangaluru Port: The New Mangaluru Port has been developed into an all-weather major port, by the Government of India. The port was declared in 1974, as the ninth major port in the country and was developed over the years. During Eighth Plan, a sum of Rs.60 crores was allotted by the centre. Apart from it, some more facilities are expected to be created to handle crude oil, coal, LPG etc., and the user agencies have also agreed to meet the expenditure. Now this port is being administered by New Mangaluru Port Trust Board under Government of India. During 1974-75 it handled only 0.09 million tonnes of cargo through 77 ships and during 1984-85 it has gone upto 3.38 million tonnes and 342 ships. During 1994-95, the cargo handled was 8 million tonnes and ships visited were 514. During 2004-05 it had gone upto 33.89 million tonnes and cargo ships visited the port was 1,057. During 2006-07 it handled 82.04 million tonnes of traffic with 17.92 million tonnes of imports and 14.12 million tonnes of exports. It also handled 1015 vessels including 18 cruise vessels during 2006-07.

Excluding the new Mangaluru port, and the Karwar, Malpe and old Mangaluru ports, the cargo traffic handled at other minor ports during 2007-08 was 6,085 thousand tonnes. During 2009-10, new Mangaluru Port earned a revenue of Rs.363.18 crores with an expenditure of Rs.238.51 crores and a profit of Rs.28.66 crores. In the same year goods worth Rs.215.68 lakhs metric tons were imported and Rs.129.59 lakhs metric tons of goods were exported. During 2010-11, it rose to 210.66 and 104.84 lakh metric tons respectively.

TRAFFIC HANDLED DURING 2011-12 AND 2012-13(in Lakh tons)

Sl.No	Name of the Commodity	2011-12	2012-13
A. IMPORTS			
1	POL (IOC/BPCL)	4.46	4.73
2	Crude Oil (MRPL)	130.80	142.17
3	LPG	20.74	17.83
4	Fertilizer		8.04
5	Wooden Logs	2.96	2.47
6	Edible Oil		6.34
7	Coal	40.21	69.10
8	Liquid Ammonia		0.51
9	Phosphoric Acid	1.38	1.17
10	Cement (Mech)	2.53	2.62
11	Limestone	0.55	0.26
12	Containerised cargo	2.89	3.29
13	Others	15.43	17.71
	Total(A)	236.84	273.21
B. EXPORTS			
1	POL Products(MRPL)	66.43	78.25
2	Iron Ore Pellets	17.71	10.93
3	Iron Ore Fines	0.49	0.26
4	Granite stone	0.95	0.07
5	Containerised cargo	3.55	3.62
6	Others	3.43	4.00
	TOTAL B	92.56	97.13
	GRAND TOTAL: A+B	329.41	370.35

The operational performance of New Mangaluru Port Trust is furnished here for reference.

OPERATIONAL PERFORMANCE OF NMPT during 2012-13

Performance Indicators	2012-13
Total Traffic (In million tons)	37.04
No. of vessels handled	1071
Pre-berthing delay (In days)	1.05
Average Turn Round Time (In days)	3.30
Average Parcel size (In tons)	34609
Average Output per berth day (In tons)	15917
Average Output per hook per shift (In tons)	1495.

The financial performance of the New Mangaluru Port for the last four years is given below.

FINANCIAL PERFORMANCE OF NMPT OVER THE YEARS

	2007-08	2008-09	2009-10	2010-11	2011-12
Income (Rs. crores)	308.76	353.98	363.18	353.20	432.40
Expenditure (Rs. crores)	181.81	205.97	234.51	244.90	265.90
Net Surplus (Rs. crores)	126.95	148.01	128.66	108.30	166.60

Goods transport in Ports

(In 1000 Metric tons)

Port	Year		
	2008-09	2009-10	2010-11
Old Mangaluru	88.000	75.10	124.90
Karwar	2,956.10	2,23,7.60	1,126.60
Belikeri	1,907.72	6,273.80	1,830.60
Malpe	6.00	2.08	1.37

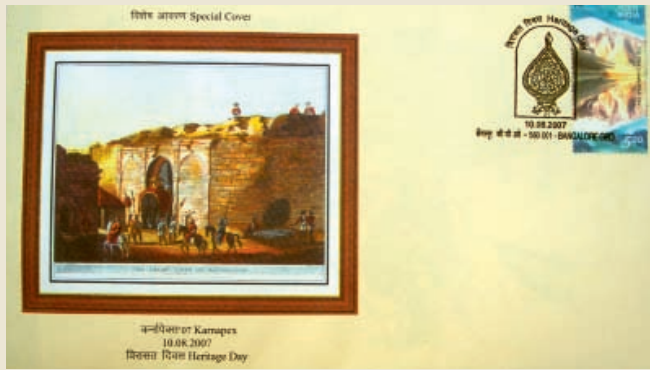
Traffic handled by Ports ('000 MTs)

Ports	2011-12	2012-13 (Up to Sept.12)
Old Mangaluru	87.80	16.80
Karwar	497.20	260.30
Belikeri	-	-
Malpe	2.74	0.85

Source: Public Works, Ports and Inland Water Transport

Sea Erosion: Out of the 300 km.s of coastal belt, nearly 240.54 km.s of it faces severe sea erosion. Besides this, the tidal reaches of as many as 14 rivers like Kali, Aghanashini, Gangavali, Sharavathi, Kollur, Sita, Gurupur, Netravathi, Belekeri etc., are also subject to river bank erosion. As a precautionary measure, till March 2007, about 57 km.s long erosion protection wall has been built in different critical places at a cost of Rs.60 crores. A master plan to find permanent solution to this problem costing Rs.292 crores has been sent to the Central Water Commission of India for approval. Sea erosion protection works has been undertaken as per the design of D.R.D.O., Pune and K.E.R.S., Mandya. During 2010-11 Rs.1038.69 lakhs has been spent for conservation works of coast, 500 metre of sea coast at Uttara Kannada District and 450 meters in Udupi District, were conserved by constructing erosion protection wall.





First Day Postal Cover

POSTAL SERVICES

As early as 17th century, old Mysuru State had local postal system called 'Anche', the word popularised by prince Chikkadevaraya. 'Anche', being the Kannada form of 'Hamsa', the messenger used by Nala and Damyanti of epic fame. Under Odeyars, it was a part of the intelligence department and was headed by the Anche Bakshi. Imperial Post Offices working under the British at Srirangapatna, Hunsur and Tumakuru were included in the Anche Dept. of the two imperial postal lines functioning, the Bengaluru-Bombay postal route was passing through Chitradurga and Harihara; the other from Bengaluru to Mangaluru via Mysuru and Madikeri. There were imperial Post Offices at places like Bengaluru, Mysuru, Harihara and Pandavapura in the princely state of Mysuru (French Rocks). The British had opened their post offices at Bengaluru Cantonment and Mangaluru during the first decade of the nineteenth century and other centres of Bombay-Karnataka during the second and third decades of the nineteenth century. Dharwad had a post office in 1820 and Hubballi in 1833. The number of post offices rose from 180 (1882) to 412 (1886) in the Mysuru Kingdom and Quarter Anna post cards were introduced in old Mysuru. The Mysuru Anche system until its merger with the imperial postal department in 1889 was rendering services at a very cheap rate.

For some time, in the beginning, the post was carried by the runners and delivered to the destinations. There was a cart line service between Madras and Bengaluru. After the completion of Railway line between Bengaluru and Madras in 1864, mail was transported in trains. With the introduction of motor vehicles during the early decades of 20th century, mail was carried by the motor buses. The Bengaluru General Post Office

(GPO) was opened in 1800 and was one of the most important post offices in the Madras circle after Madras GPO. In 1854, Bengaluru was a Saddar or Head Office and Subordinate offices attached to it were Panadvapura (French Rocks), Hunsur, Harihara, Madikeri, Mysuru, Shivamogga, Srirangapatna and Tumakuru. In 1870, there were receiving houses at Bengaluru Cantonment and Bengaluru city. Kollegal was transferred from Coimbatore Head office to Bengaluru Head office in 1889. In 1891, Money Order services were transferred from State Treasury to Post Offices.

The Old post offices in Kodagu district were Virajpet (1864), Madikeri (1870) and Ammathi (1871). Post was directly transported from Mysuru Railway Station to Madikeri on Horse carts in 1894. District Postal Department was under the control of PMG Madras. The postal division of Dakshina Kannada included the entire district and a part of the present Kerala. Ballari district in the Madras Presidency had a postal division. There were 30 post offices at Kumta and Karwar in 1883. Besides, there were 17 sub-post offices and 11 village post offices also were working during the same period.

In Hyderabad-Karnataka, the Nizam's Govt. had a Postal Department of its own and the Govt. Service mail was carried and delivered by the orderlies or sawars. In 1869 the first postage stamp of Hyderabad was introduced and postal insurance scheme in 1907. There was a British Indian Post office at Humnabad. The postal dept. of Hyderabad was merged with central postal system on 1.4.1950. The Hyderabad Karnataka region was under the Kalaburagi postal division from 1959-60.

The Vijayapura and Belagavi districts were under the Southern Maratha Postal division in 1884 and the Head offices were functioning at Vijayapura, Kaladgi and Belagavi. In Belagavi district 40 post offices and one telegraph office at Belagavi were functioning during 1884. From Bombay to Karwar, posts were carried by steamers once a week. In 1803, a runner route was opened between Bombay and Madras via Belagavi, Dharwad, Harihara and Bengaluru. About 230 runners were employed for this purpose. Another runner route was passing from Malabar to Bombay through Honavar and Dharwad. Postal bags were exchanged at Dharwad, since it was an important centre in the postal system.

In 1921-22, the Director of Industries and Commerce was appointed as liaison officer, between the State and the British Post and Telegraph Department. There were four Head offices, 109 sub offices and 376 Branch offices in the Princely Mysuru State during 1923-24.

With the formation of Karnataka Post and Telegraph Circle on 1.4.1960, Kalaburagi Division (Hyderabad circle); Dharwad and Belagavi Divisions (Bombay circle); Bengaluru, Mysuru, Dakshina Kannada and Ballari Divisions (Madras Circle) were transferred to the Karnataka Postal Circle. One Railway Mail Service (RMS) Division at Bengaluru (Q division) was also transferred from Madras Circle. Under the control of this division, there were six RMS sorting offices in running trains. There is a phenomenal increase in the postal activities after the formation of Karnataka Circle. As on 1.4.1960, there were 3,966 post offices in the State and on an average one post office was there for every 48.38 sq.km. and to a population of 5,934. On 1.7.1965, the Quick Mail Service (QMS) was started between Bengaluru and Delhi and later it was extended to the district headquarters and other centres, three Speed Post center were located at Bengaluru, Mysuru and Mangaluru. In Bengaluru alone. There were 33 speed post booking centers apart from six in Mangaluru and three in Mysuru. Point to point Speed Post Facility is available in many cities. There are at present eight speed post centres on national network and 28 Speed post centres at state level, with a revenue earning of Rs. 12,42,984 from speed post service. The Corresponding statistics as on 31.03.1992 was 9,707 post offices on an average of one for every 19.80 sq.km. and for a population of 4,680. By March 1999, there were 9,852 post offices working in the state. In March 2000, the Karnataka Postal Circle office had control over the three regions of Bengaluru, South Karnataka and North Karnataka with their head quarters at Bengaluru for the first two and Dharwad for the last one. There were altogether 9,873 post offices comprising 70 head Offices, 1785 Sub Post Offices, 296 Extra Departmental Sub-Officers and 7,722 Extra Departmental Branch Offices in the State. During the year 1999-2000, 1,23,34,011 registered articles were booked in the state. As on March 2003, there were 9,908 Post Officers in the State. But by March 2008, it had come down to 9,826. Among them 1257 post offices were located

in Urban areas and 8569 post offices located in rural areas. Each post office served a population of 5725 people and covered an area of 19.5 sq.km. in the State as against to 7,174 people and 21.2 sq.km. per post offices.

As on March 2010, there were 9,820 Post offices. there were 9772 post offices. Belagum district with 566 post offices ranked first and Chikkaballapura with 147 offices was at the bottom.

The number of letter boxes which stood at 8,557 in 1960, rose to 27,348 in 1992, an almost 319% increase over the last few decades, The number of letter boxes in use by March 2000 was 30,367 comprised of 8,105 boxes at urban places and 22,262 boxes in rural areas. There were 8,060 rented post boxes, 401 postbags, 177 post boxes cum bags earning a total revenue of Rs. 13,05,701 from them, There are also seven Night Post Offices working at Bengaluru (2) Mysuru, Davanagere, Hampanakatta (Mangaluru), Belagavi and Hubballi respectively, Two Philatelic Bureaux in the state are at Bengaluru GPO and Mangaluru H.O. Since 2000, all H.O.'s have been authorized to open philatelic counters. The mail is carried over a route length of 11,443 km. by rail, 1,00,459 km. by road, 12,195 km. by runners and 32,334 km. by other modes in the State. The total revenue earned from all sources by the department during the year was Rs.135.12 crores as against the working expenditure of 218.44 crores. The Postal Training Centre at Mysuru is imparting training to the newly recruited postal assistants, sorters, instructors and others. As a result of liberalization, private agencies like Courier, VRL, Professionals, DTDC, The Franch Express and Eagle Fly Fax are also providing effective postal services with accuracy and punctuality.

Important among the postal services are: (1) General Post (2) Speed post (3) Direct post (4) E-payment (6) Business post (8) Media post (6) WIMT Mail Transfer from other countries (7) IMO (Immediate Money Order) (8) E-post.

People are investing in Postal savings scheme and the details are as follows: (1) Post Office Savings Account, (2) 5 years Recurring Deposit Account, (3) Time Deposit Scheme, (4) Monthly Income Scheme (5) 15 years Public provident fund scheme, (6) 5 years National Savings Scheme (Eighth series), (7) 10 years National Savings Scheme (Ninth series), (8) Senior Citizen Savings Scheme.

Telegraph: Construction of telegraph lines was started around 1853 and by 1856 about 537 km. telegraph lines were laid in princely Mysuru. Madikeri was an important centre in the coastal telegraphic division of Malabar during 1889-90, as the telegraph line from Mysuru to Cannanore passed via Madikeri. There was a branch line to Mangaluru in 1865. Mangaluru had one central telegraph office. The two telegraph offices working in the state in 1890-91, were at Mysuru and Bengaluru. British had also connected their district headquarters like Bengaluru cantonment, Ballari, Belagavi and Dharwad by telegraph lines. By 2000, there were 4,032 combined telegraphic offices and 253 independent telegraphic offices in the state with 81 telegraphic offices accepting the telegrams even in Devanagari Script. But due to maximum use of Telephones and Cell phones, telegraphic usage is lessening considerably throughout the country, even then it still continues domestically with less significance. BSNL announced the discontinuation of its telegram services from 15 July 2013, after 160 years in service. It was opened to the public in February 1855; it was upgraded to a web-based messaging system in 2010, through 182 telegraph offices across India.

TELECOMMUNICATION

Telecommunications has evolved as a basic infrastructure like electricity, roads, water etc., and has also emerged as one of the critical components of economic growth required for overall socio economic development of the country. The Indian telecom sector has registered a phenomenal growth during the past few years and has become second largest telephone network in the world, only after China. A series of reform measures by the Government, the wireless technology and active participation by private sector played an important role in the exponential growth of telecom sector in the country. National Telecom Policy-2012 (NTP-2012) has been announced during the current year with the primary objective of maximizing public good by making available affordable, reliable and secure telecommunication and Broad-band Services across the entire country.

Present Status

The Indian telecom network with 895.51 million telephone connections, including 864.72 million wireless telephone connections, at the end

of December 2012 is second largest network in the world after China. Out of this, 338.59 million telephone connections are in rural areas and 556.92 million are in urban areas of the country. There were 24.01 million Internet subscribers including 14.68 million Broadband subscribers at the end of September 2012. The number of Broadband subscribers increased to 14.98 million, end of December 2012. Tele-density, which shows the number of telephones per 100 populations, is an important indicator of telecom penetration in the country. Tele-density, which was 78.66% at the end of March 2012, increased to 79.58% by the end of June 2012 and then declined to 73.34% by the end of December 2012.

Present Status of the Telecommunication Sector (As on December 31, 2012).

- Indian telecom network is second largest in the world after China.
- The country has 895.51 million telephone connections, including 864.72 million wireless telephone connections.
- Overall tele-density in the country is 73.34%.
- Urban tele-density is 149.55%, whereas rural tele-density is 39.90%.
- The share of wireless telephones in total telephones is 96.56%. The share of private sector in total telephones is 85.51%. Number of Broadband connections is 14.98 million. Among the service areas, Tamil Nadu (109.64%) has the highest tele-density followed by Himachal Pradesh (102.76%), Punjab (101.92%), Kerala (100.76%) and Karnataka (91.26%).

Bengaluru Cantonment appears to be the first recipient of telephone system, soon after its installation at Madras. During the Khedda Operation at Kakanakote in 1889, a line of about 36 miles was laid between Hunsur and Kakanakote. Another line of about 17 km. was laid between Hesaraghatta Water Reservoir and Chikkabanavar during 1896. During the plague outbreak in Bengaluru and Mysuru in 1898, temporary telephone lines were installed at Bengaluru for anti-plague operations. In 1899, 50 government offices were provided with permanent lines. In 1909, new lines were laid in Mysuru City and later connected to Bengaluru in 1911-12. The telephone system was under the control of Electricity Department in the beginning. By 1918,

the total length of telephone lines in the princely Mysuru State was about 852 km.

Use of telephones in the twin cities of Hubballi and Dharwad was started in 1936. On 31.3.1936, a telephone exchange of 50 connections was established at Dharwad. Belagavi city appears to have got telephone in 1930.

Telephone Exchange of Ballari was commissioned in 1940, and had 50 connections at the outset. In 1952, telephone link between Mysuru and Madikeri was established. Use of Telephones in Madikeri City began on 22-1-1955. The first telephone exchange in Chitradurga district was started at Davangere on 5-2-1953 with 43 connections. The telephone exchanges at Mandya and Chikkamagaluru, were started in 1955 and 1956 respectively.

When Karnataka Postal Circle was formed in 1960, the administration of the Postal and Telecommunication services in the State was within this newly created postal circle. Due to the expansion of postal and telecommunication services, the combined set-up was bifurcated on 1.9.1974. The Karnataka Postal Circle was headed by the Post Master General, whereas Karnataka Telecommunications Circle was headed by the General Manager. There was a separate General Manager for Bengaluru city telephones.

A separate circle was formed for Bengaluru Telephones in 1964. It was upgraded into major Telephone district on 23-7-1976. The growth of Bengaluru Telecom District was spectacular. In 1966, there were only 13,300 telephones in Bengaluru and it increased to 44,800 in 1978 and to 57,658 in 1982. During 1989, there were 85,475 phone connections.

In 1971, there were 33 exchanges with 7,310 telephones in Dakshina Kannada district Mangaluru City alone had 4,200 telephones. There were 18,753 connections in use in 1960-61, and their number in 1991-92 was 1,39,503. There were 1,30,230 telephones in Dakshina Kannada District, where as 52,011 telephones were operating in Udupi District by March 2000.

During the period from 1982 to 1992, there was rapid expansion in the telephone system. As a result, 83,258 telephones which were in use during 1982, rose to 3,75,043 telephones in 1992-93. By March 2000, there were 18,29,400 telephones working in the State and Bengaluru (urban)

District ranked first with 6.08,103 telephones. As on March 2003, there were altogether 27,53,499 telephone connections serving the needs of the people in the State. There were 739 telephone exchanges functioning in Karnataka Circle in 1982, as against 1707 in 1992. As many as 92 new exchanges were started in 1992-93 and thus bringing the total number to 1,799 exchanges. They rose to 2,354 by March 2000. As on March 2003, it had gone upto 2,696. Due to substantial growth in information technology mobile phones are increasing considerably and at the same time the land lines are decreasing to certain extent. As a result by March 2008 there were 2727 telephone exchanges to serve the 26,10,353 telephone subscribers in the state. If Bengaluru (Urban) district with 8,80,435 telephones topped the list, Dakshina Kannada district with 1,86,446 telephones ranked second. Chamarajanagar with 17,389 telephones ranked last. This is due to mobile phones gaining more popularity.

Use of Cellular phones (No. of subscribers)

	Year		
	2007-08	2008-09	2009-10
Bharath Sanchar Nigam Ltd.	20,85,432	27,43,511	39,41,833
Cellular Phone users of Private Companies	80,87,446	1,07,99,175	5,05,47,525
Total	1,01,72,878	1,35,42,686	2,44,89,358

Details of B.S.N.L. and Private Cellular users

Service Centre	Rural	City	Total
Tamil Nadu	51.65	158.28	110.37
Kerala	55.01	146.04	103.79
Maharashtra	48.27	144.21	92.96
Karnataka	35.33	182.21	90.48
Andhra Pradesh	35.33	182.84	76.38
All India	35.60	163.13	73.97

The density (183.21) of Karnataka is higher than All India density (163.13). But when compared to density of Southern States, Karnataka occupies second place and fifth place in the urban and rural density.

Though the number of Telephone exchanges are increasing, the number of land phone connections have decreased considerably, mainly due to increasing mobile connections of private companies.

Details of Telephone Exchanges and Telephones

Year	Telephone Exchanges	Telephones
2008-09	2,651	23,26,532
2009-10	2,694	21,87,802
2010-11	2,789	20,40,456

The Telephones per 100 Population-Urban/Rural (Tele-density) in KARNATAKA as on 31st December 2012 was as was 91.26% (overall) with 170.84% (Urban) and 42.92% (rural) respectively. At the same time, the overall number of telephones 58405069 in operation was 55233315 with 39075369 (urban) and 16157946 (rural) accounting for 29.25%. The Number of Telephones as on 31st December 2012 in Karnataka, as of wire line telephones was 2451120; of them 1705830 were public sector units and 745290 were private operators. Among the total wireless phones of 52782195, 6998146 were public sector units and 45784049 were private sector units. Thus by December 2012, 55233315 telephones were in operation in the State.

Bharat Sanchar Nigam Ltd., (BSNL): It is providing varied telecommunication services to the whole country. Besides, private agencies are also in the field. Mobile Phone Service has become more common now days and through it people are getting maximum benefit. Infact it has succeeded in bringing the people closer and closer. Mobile instruments are available at competitive price with facilities like SMS (Short Message Service), Camera, Playing games etc., provided within them.

In 1992-93, the number of STD/ISD routes in the State was 590. Apart from district headquarters, 159 taluk headquarters were brought under the STD network. During 92-93, 767 STD points were newly opened in order to facilitate greater access to the non-telephone owning public. The total STD points stood at 2,800. By providing new connections to 1,207 village panchayats, altogether

5,644 village panchayats were linked up with the telephone network. Travelling public too was taken care of by installing 207 public telephones on the national highways. There were 20,933 public STD booths working in different parts of the state by the end of March 1999. Free phone connections were provided to 598 tribal villages and 48 hospitals at various district headquarters. At present, all the taluk and Hobli headquarters were brought under STD network and majority of the villages were provided with telephone services. Coin booths have entered rural villages and common man being given access to it. The advent of cell phones has brought revolutionary effect in the field of telecommunication, private companies like Airtel, Reliance, Vodaphone, Air-cell, Idea, Tata-indicom, Docomo have been competing with BSNL by extending varieties of schemes to the customers. Cell companies like Sony, Nokia, Samsung etc., are bringing vivid type of mobile units regularly.

The first Telex Exchange in Karnataka was established at Bengaluru in 1963. Later followed the Telex Exchanges at Mysuru, Mangaluru, Hubballi, Belagavi, Davanagere, Ballari and Raichur. Nine more exchanges were opened during 1992, thus bringing the number of Telex Exchanges to 3,079, and those on the waiting list were 462. Fax service, E-mail and internet facilities have made communication both cheaper and quicker. The telecommunication department by providing broad band connections to its subscribers in recent years has made internet facilities easily available to its customers.

Though it offers services at lowest tariffs, the private companies continue to notch up better numbers in all areas, years after year. BSNL has been providing connections in both urban and rural areas. Pre-activated Mobile connections are available at many places across India. BSNL has also unveiled cost-effective broadband internet access plans (DataOne) targeted at homes and small businesses. At present BSNL enjoys around 60% of market share of ISP services. 2007 was declared as "Year of Broadband" in India and BSNL announced plans for providing 5 million broadband connectivity by the end of 2007. BSNL upgraded Dataone connections for a speed of up to 2 Mbit/s without any extra cost. This 2 Mbit/s broadband service was provided by BSNL at a cost of just US\$ 11.7 per month (as of 21 July 2008

and at a limit of 2.5GB monthly limit with 0200-0800 hrs as no charge period). Further, BSNL is rolling out new broadband services. BSNL planned to increase its customer base to 108 million customers by 2010. With the frantic activity in the communication sector in India, the target appears achievable. BSNL is a pioneer of rural telephony in India. BSNL has recently bagged 80% of US\$ 580 m (INR 25 billion) Rural Telephony project of Government of India. On 20 March 2009 BSNL advertised the launch of Blackberry services across its Telecom circles in India. The corporation has also launched 3G services in select cities across the country. Presently, BSNL and MTNL are the only players to provide 3G services, as the Government of India has completed auction of 3G services for companies. BSNL shall get 3G bandwidth at lowest bidder prices of ₹ 185 billion, which includes ₹ 101.86 billion for 3G and Rs 83.13 billion for BWA. As of December 2011, many other private operators have started rolling out their 3rd Generation (aka 3G) services alongside and are enjoying some success in their campaigns to get market share. While BSNL still maintains its connectivity standard and expands to many more areas including rural areas with their 3G services. Also the network infrastructure has been upgraded from 3.6 Mbit/s to 7.2 Mbits/sec. It is enjoying a slow but somewhat steady success in gaining market share in this regard.

The introduction of MNP (Mobile Number Portability) which is a service that lets the consumer change wireless service providers while retaining their actual mobile number, BSNL has seen many customers opting for this service to move away 2011 from the services to other operators. Despite this as the Indian Wireless market grows BSNL still has a loyal base of subscribers and many more subscribers being added to it every day. This provides customer services for 95 million as of June 2011.

BSNL provides almost every telecom service in India. Following are the main telecom services provided by BSNL.

- 1) **Universal Telecom Services** : Fixed wireline services and landline in local loop (WLL) using CDMA Technology called bfone and Tarang respectively. As of 30 June 2010, BSNL had 75% marketshare of fixed lines.
- 2) **Cellular Mobile Telephone Services:** BSNL

is major provider of Cellular Mobile Telephone services using GSM platform under the brand name Cellone & Excel (BSNL Mobile). As of 30 June 2010 BSNL has 13.50% share of mobile telephony in the country.

- 3) **WLL-CDMA Telephone Services:** BSNL's WLL (Wireless in Local Loop) service is a service giving both fixed line telephony & Mobile telephony.
- 4) **Internet:** BSNL provides Internet access services through dial-up connection (as Sancharnet through 2009"cite_note-8" as Prepaid, NetOne"cite_note-9" as Postpaid and ADSL broadband as BSNL Broadband"cite_note-10" BSNL held 55.76% of the market share with reported subscriber base of 9.19 million Internet subscribers with 7.79% of growth at the end of March 2010. Top 12 Dial-up Service providers, based on the subscriber base, It Also Provides Online Games via its HYPERLINK "Games_on_Demand" (GOD)
- 5) **Intelligent Network (IN):** BSNL offers value-added services, such as Free Phone Service (FPH), India Telephone Card (Prepaid card), Account Card Calling (ACC), Virtual Private Network (VPN), Tele-voting, Premium Rae Service (PRM), Universal Access Number (UAN).
- 6) **3G:** BSNL offers the '3G' or the '3rd Generation' services which includes facilities like video calling, mobile broadband, live TV, 3G Video portal, streaming services like online full length movies and video on demand etc.
- 7) **IPTV:** BSNL also offers the 'Internet Protocol Television' facility which enables customers to watch television through internet.
- 8) **FTTH:** Fibre To The Home facility that offers a higher bandwidth for data transfer. This idea was proposed on post-December 2009
- 9) **Helpdesk:** BSNL's Helpdesk (Helpdesk) provide help desk support to their customers for their services.
- 10) **VVoIP:** BSNL, along with Sai Infosystem - an Information and Communication Technologies (ICTs) provider - has launched Voice and Video over Internet Protocol (VVoIP). This will allow in making audio as well as video calls to any landline, mobile, or IP phone anywhere in the world, provided that the requisite video phone equipment is available at both ends.

11) Broadband Access Technology with the minimum speed of 256kbit/s. The focus of this service is mainly rural customer where the wired broadband facility is not available.

BSNL has started 3G services in 290 cities and acquired more than 600,000 customers. It has planned to roll out 3G services in 760 cities across the country in 2010-11. According to users and big sources BSNL's 3G data speed is much higher than other operator and also it is competitively cheap.

Broadband Services: The shift in demand from voice to data has revolutionized the very nature of the network. BSNL is poised to cash on this opportunity and has planned for extensive expansion of the Broadband services. Broadband Increase in Broadband connectivity is being seen as an integral driver of improved socio-economic performance. Broadband services empower masses and allow individuals to access new career and educational opportunities, help businesses reach new markets and improve efficiency and enhance the Government's capacity to deliver critical services like health, banking and commerce to all of its citizens. There were 14.98 million Broadband subscribers in the country by the end of December 2012. The Broadband customer base of 3.56 Million customers in March'2009 is planned to be increased to 16.00 million by March 2014.

ALL INDIA RADIO

A radio transmission centre called Akashvani was started by Dr.M.V.Gopaldaswamy, a Psychology Professor of Mysuru University at Mysuru in 1935 through private effort. The station was later taken over by the State Government in January 1941. At a later stage it was taken over by the Centre and shifted to Bengaluru in November 1955. In the same year, the Bengaluru AIR Station commenced its broadcast through one high power transmitter. The First A.I.R. Station in the North Karnataka region started functioning at Dharwad, on 8th November, 1950. In 1964, Vividh Bharati (CBS) was added to Dharwar unit. Opening of this station was a boon to the cultural field of North Karnataka. Auxiliary stations at Bhadravati and Kalaburagi were started in 1965 and 1966 respectively. Another low power transmitter at Mysuru was inaugurated on the 14th November 1974. It was upgraded in 1989 as an independent

regional station. The Mangaluru Station was inaugurated on the 14th November 1976.

After 1990, seven more A.I.R. stations began to operate at places like Chitradurga and Hassan (1991), Hosapete (1992), Madikeri and Raichur (1993), Karwar (1994), Vijayapura (1997) and Ballari (2003). Consequently, by October 2006, the total number of stations has increased from six to 14. Among them, while Dharwad, Bengaluru and Bhadravati AIR stations have 2 x 100 KW transmitters, Kalaburagi and Mangaluru have 2 x 10 KW transmitters; Chitradurga has 6 KW and Hosapete has 2.5 KW transmitters; Hassan, Madikeri, Raichur, Karwar and Vijayapura have 2x3 KW transmitters, whereas Mysuru has only 1 KW transmitter. It is proposed to equip the AIR station at Mysuru with 10 KW transmitters to broadcast the routine programmes more effectively. For the purpose of broadcasting Vividh Bharati Programmes separate low powered transmitters have been set up at Bengaluru and Dharwad. Both the Stations are attached with regional news units which bring out three regional Kannada news bulletins daily. The radio stations cover about 96% of the State's population. FM (Frequency Module) stations operating at Bengaluru (FM Rainbow (2001) and Amruthavarshini (2004) serve the listeners of, Mysuru, Mangaluru, Vijayapura and other places with news and vivid cultural programmes. Along with these private F.M. stations are also serving the public with attractive cultural programmes. AIR-Bengaluru has a primary channel Vividh Bharati (CBS) (1972), FM Rainbow (2001), Amrutavarshini (2004), a classical music channel. Its local archives has the voices of more than 1300 eminent personalities of film, music, politics, social works, business, science, arts, literature and other cultural fields broadcast during the last 50 years.

At the end of December 2011, there were 19 Akashvani Stations (Bengaluru, Ballari, Bhadravathi, Vijayapura, Budikote, Chitradurga, Dharwar, Kalaburagi, Hassan, Hosapete, Karwar, Madikeri, Mangaluru, Manipal, Mysuru, Raichur, Sringeri, Tumakuru, and Udupi). Apart from this, Radio city, Radio Indigo, Big 92.7 F.M., Red F.M., Radio Mirchi, Raman Voice, Active Fever 104, F.M. Gyan Vani, Radio Universal, Jnana vani run by Indira Gandhi Open University, and such other private F.M. stations are broadcasting programmes.

TELEVISION

Although, Doordarshan entered India on September 15, 1959 (Delhi), Kalaburagi was the first centre in Karnataka to have a relay centre. It was inaugurated on 3-9-1977 and at the outset, in a radius of 40 km., 240 villages and towns of Raichur and Vijayapura districts and Kalaburagi were benefited by community viewing. The community viewing, T.V.Sets were maintained and serviced by the Doordarshan Kendra, Kalaburagi. Bengaluru City was provided with an interim TV relay centre on 1-1-1981. Initially, Bombay and Madras TV Programmes were relayed for a limited period on the selected days of the week. But programmes could be locally produced and telecast only from December 1983. In 1984, TV transmitters were commissioned at Mangaluru, Davangere, Vijayapura, Ballari, Gadag, Raichur, Dharwad, Mysuru, Belagavi and Hosapete. The full-fledged production centre of the Bengaluru Doordarshan was started in 1988.



Bengaluru Doordarshan Kendra

The Doordarshan Kendra, through regional language satellite service started relaying Kannada programmes from 1-3-1990. It was gradually regularized from 1-11-1990. On 12-1-1992, Shivamogga had a 10 KW transmitter. As on 18-5-1993, there were 27 TV transmitters working in the State. All of them are connected to Bengaluru-Doordarshan Kendra. Apart from Kannada Programmes, the Kendra is also telecasting programmes in Tamil, Telugu, Marathi, Urdu, Kodava, Konkani and other Indian languages. About 72% of the population and an area of 86% in the State, was covered by the Doordarshan from 1993-94. The Kendra started its DD9 (Chandana) transmission from 15-8-1994. Kannada Movie club was initiated in August 1995 and the Karnataka Regional Services DDK tract was inaugurated from December 1995.

By 1998, there were altogether 46 T.V.transmitters, comprised of 4(HPT), 39 (LPT) and 1 (OT) respectively. During 1999-2000, besides upgrading the Hassan centre from LPT to HPT (10KW), new LPT's have been commissioned at Hiriyur, Hosadurga and Dandeli along with the VLPT commissioned at Badami in Bagalkot district. The exclusively part-time Kannada Channel, DD9 was made a 24 hours Kannada Channel (Chandana) of 12 hours of repetition, meant mainly for Kannada literary programme, socio-economic and cultural activities with 30% of commercial viable programmes. The Doordarshan Kendra, Bengaluru had earned a sum of Rs.19,61,67100 in 1998-99 from both sponsored programmes and commercial sources, but its revenue has fallen down to Rs.12,05,87,975 for the year ending 1999-2000. So for it has succeeded in covering 75.9% of the total area and 69.8% of the total population in the State which is well below the national average of 88.5% and 75.5% respectively. It is estimated that nearly 2.8 crores of the total state population were regular T.V.viewers within the State. There is a proposal not only to upgrade Mysuru and Mangaluru D.D.Centres from LPT to HPT, but also install LPT's at Mudhol and Sindhanur. As on Dec.2000, 4 HPT's, 46 LPTs and 3 VLPTs were operating in the state and providing DDI, DD2 and Chandana Channel services to the people of Karnataka. As on 30-12-2012 68 (12 HPT's 49LPT's and 7 LPT's) National transmitters were operating in the State. Accordingly the Doordarshan Maintenance Centres(DMCs) were working at Belagavi, Hosapete, Mysuru, Mangaluru, Kalaburagi, Bengaluru, Vijayapura, Davangere.

Besides Doordarshan Channels like D.D.I., Chandana, privately initiated satellite channels like Udaya, Udaya 2, Udaya Movies, Udaya News, Ushe, TV9, Survarna, Kasturi, E-TV Kannada, Udaya_Comedy, Udaya_Movie, Zee Cinema Kannada Kids Chintu Tv, Polimer Kannada Sandalwood Channel. Public Music Zee TV, Udaya Music, Raj Music ,Channel UFX" Samaya News, Janashri news, Kannada Suvana_News, Kasthuri News, Raj News; Tamil Channels like Sun, Raj and Vijaya; Telugu channels like Eenadu, Gemini T.V.; Hindi channels like Zee, star and Sony; Malayalam channels like Eenadu and Asianet; Other Channels like Star, ESPN, Ten sports, BBC, Discovery, National Geographic,

FTV, MTV, Channels-V, Pogo, CNN., etc., are providing varieties of entertainment through Cable Operators. At present, local cable operators in the towns and cities are associating together to form a single city cable network, through which the programmes are telecasted within the respective city jurisdictions. DTH (Direct to Home) services have given the T.V. viewers freedom in selecting the channels according to their taste at a cheaper rate. But still cable network has an upper hand in this regard. Under DD Direct Plus, was started by Doordarshan on 16th Dec.2004. It is the first free DTH service offering 33 TV channels and 12 radio-channels to the customers. Today, Doordarshan has two Kendras Bengaluru (1983) and Kalaburagi (1994) and maintenance centres at Bengaluru, Belagavi, Vijayapura, Davanagere, Kalaburagi, Hosapete, Mangaluru and Mysuru. As on March 2006, Doordarshan has 2 studios (out of 67 in the whole country) at Bengaluru and Kalaburagi, 55 (8HPTs, 47LPTs) as National Channel Transmitters, 6 (4 HPTs and 2 LPTs) news channel transmitters and 7 VLPT regional channels in Karnataka. It has covered 76.2% of the area and reached 82.4% of the population in the state through its DD-1 National Channel by March 2006. It is estimated that the DD Chandana channel is being tuned by 40,78,000 households during 2006 Jan-Dec. in Karnataka. As per the TAM Annual Universe Update - 2010, India now has over 134 million households (out of 223 million) with television sets, of which over 103 million have access to Cable TV or Satellite TV, including 20 million households which are DTH subscribers. In Urban India, 85% of all households have a TV and over 70% of all households have access to Satellite, Cable or DTH services. TV owning households have been growing at between 8-10%, while growth in Satellite/Cable homes exceeded 15% and DTH subscribers grew 28% over 2009.

However, some analysts place the number of households with television access at closer to 180 million since roughly a third of all rural families may watch television at a neighboring relatives home, and argue that Cable TV households are probably closer to 120 million owing to a certain percentage of informal/unregistered Cable Networks that aren't counted by mainstream surveys). It is also estimated that India now has over 823 TV channels covering all the main languages spoken in the nation.

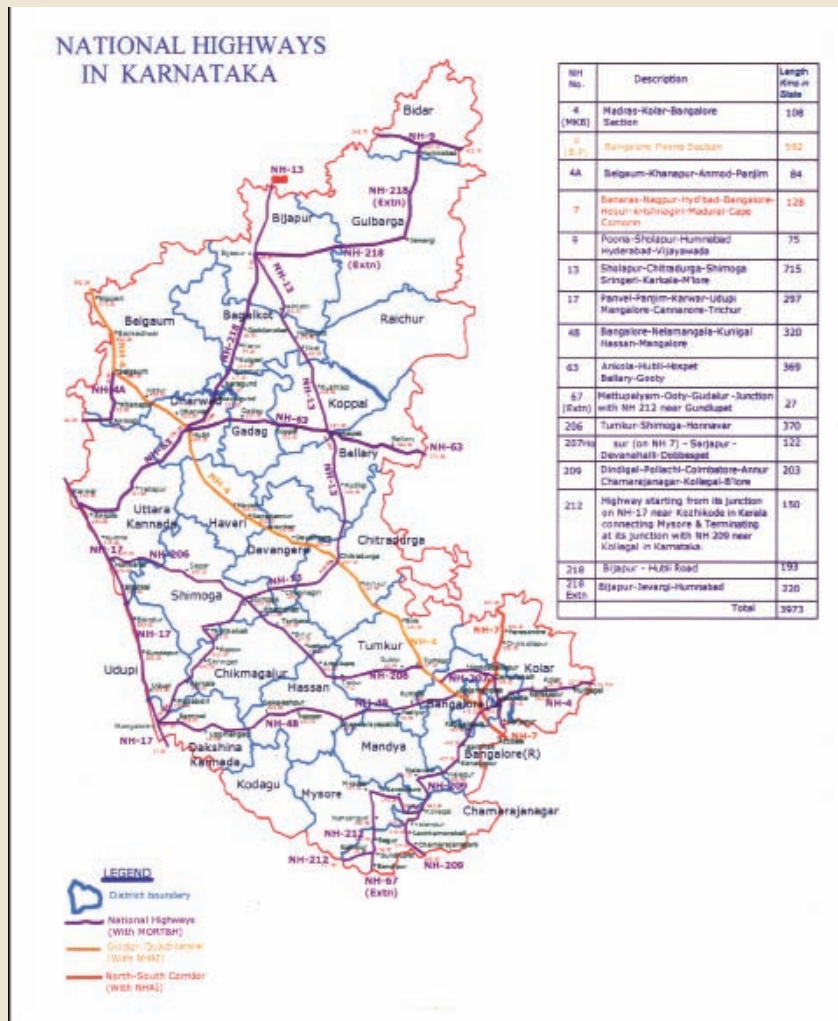
The Ministry of Information and Broadcasting issued a notification on 11 November 2011, setting 31 March 2015 as the deadline for complete shift from analog to digital systems. In December 2011, Parliament passed The Cable Television Networks (Regulation) Amendment Act to digitize the cable television sector by 2014. Digitization, on cable and terrestrial, will be carried out in four phases, in a 3-year transition starting from 31 October 2012, and finishing on 31 March 2015. The four metros of Delhi, Mumbai, Kolkata and Chennai have to shift to digital addressability by 31 October 2012. The second phase will include 38 cities in 15 states, such as Patna, Chandigarh, Pune Bengaluru and Mysuru by 31 March 2013. But due to court directions, it has been extended. All urban areas are expected to digitize by 30 November 2014 and the remaining areas by 31 March 2015.

National Telecom Policy-2012 (NTP-2012)

The Government approved National Telecom Policy-2012 (NTP-2012) on 31st May 2012 which addresses the Vision, Strategic direction and the various medium term and long term issues related to telecom sector. The primary objective of NTP-2012 is maximizing public good by making available affordable, reliable and secure telecommunication and broadband services across the entire country. The main thrust of the Policy is on the multiplier effect and transformational impact of such services on the overall economy. It recognizes the role of such services in furthering the national development agenda while enhancing equity and inclusiveness. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the NTP-2012. The Policy also recognizes the predominant role of the private sector in this field and the consequent policy imperative of ensuring continued viability of service providers in a competitive environment. Pursuant to NTP-2012, these principles would guide decisions needed to strike a balance between the interests of users/consumers, service providers and government revenue. The objectives of the NTP-2012, inter-alia, include the following:

1. Provide secure, affordable and high quality telecommunication services to all citizens.
2. Strive to create One Nation - One License across services and service areas.
3. Achieve One Nation - Full Mobile Number Portability and work towards One Nation -Free Roaming.

4. Increase rural tele-density from the current level of around 39 to 70 by the year 2017 and 100 by the year 2020.
 5. To recognize telecom, including broadband connectivity as a basic necessity like education and health and work towards 'Right to Broadband'.
 6. Provide affordable and reliable broadband-on-demand by the year 2015 and to achieve 175 million broadband connections by the year 2017 and 600 million by the year 2020 at minimum 2 Mbps download speed and making available higher speeds of at least 100 Mbps on demand.
 7. Provide high speed and high quality broadband access to all village panchayats through a combination of technologies by the year 2014 and progressively to all villages and habitations by 2020.
 8. Recognize telecom as Infrastructure Sector to realize true potential of ICT for development
 9. Address the Right of Way (RoW) issues in setting up of telecom infrastructure.
 10. Mandate an ecosystem to ensure setting up of a common platform for interconnection of various networks for providing non-exclusive and non-discriminatory access.
 11. Enhanced and continued adoption of green policy in telecom and incentivize use of renewable resources for sustainability.
 12. Achieve substantial transition to new Internet Protocol (IPv 6) in the country in a phased and time bound manner by 2020 and encourage an ecosystem for provision of a significantly large bouquet of services on IP platform.
- As per the scheme of providing Village Public Telephones (VPT) to all villages of Karnataka, by providing this facility to 27,449 villages, It has covered nearly 99.88% of the villages, as on 31-12-2012.



State Highways Nomenclature and length as on 31-03-2013			
Sl.No	SH No.	Nomenclature of State Highways	Length in State (Km)
1	SH-01	Highway connecting Padubedri with Chickalaguda via Karkala, Agumbe, Thirthahalli, Anandapura, Hangal, Thadasa, Kalghatagi, Dharwad, Uppinabetegeri, Belawadi, Bailahongala, Vannuru, Hoskoti, Ankalagi, Basapura, Hidkal Dam and Hosur.	470
2	SH-02	Highway connecting Ekkumbi with Molakalmuru via Haveri, Mylara, Harapanahalli and Kudulgi.	223
3	SH-03	Highway connecting Hunasanahalli with Chikkahalli via Kanakapura, Ramanagara, Magadi, Solur, Sompura, Koratagere, Madugiri and Pavagada	239
4	SH-04	Highway connecting Kamalanagar with Gunalli via Halburga and Bidar	68
5	SH-05	Highway connecting Bangarapet with Bagepalli via Kolar and Chintamani	106
6	SH-06	Highway connecting Karwar with Ilkal via Kaiga, Yellapura, Mundugodu, Bankapura, Savanur, Gadag, Gajendragada and Hanumasagara.	324
7	SH-07	Highway connecting Srirangapatna with Arasikere via Pandavapura, K.R Pet and Chennarayapatna.	108
8	SH-08	Highway connecting Hirisave with Chattalli via Sravanabelagula, Chennarayapatna, Holenarasipura, Arakalagudu, Sanivarasanthe, Chengadahalli, Vanaguru, Kundali, Santhalli, Thaltarshettahalli, Thakere, Beligere, Kumburu and Suntekoppa.	169
9	SH-09	Highway connecting Yelahanka with Kudumalakunte via Doddaballapura and Gowribidanur.	74
10	SH-10	Highway connecting Sarasamba with Ribbonapalli via Aland, Gulbarga and Sedam.	139
11	SH-11	Highway connecting Hulasur with Mahagao via Balakunda, Basavakalyana and Mudubi.	63
12	SH-12	Highway connecting Bijapur with Sankeshwar via Athani and Chikkodi	178
13	SH-13	Highway connecting Devasugur with Katagodu via Raichur.	56
14	SH-14	Highway connecting Ramdurg with Manvi via Badami, Pattadakal, Hulgund, Neeralakeri, Mudagal, Maski, Basapura, Pothanal and Chikalaparvi	235
15	SH-15	Highway connecting Wanamarapalli with Raichur via Aurad Santhapur, Bidar, Chincholi, Sedam, Yadagir, Hathiguduru and Devdurg.	308
16	SH-16	Highway connecting Sindagi with Kodangal via Sahapur, Kanapur, Yadagiri and Gurmitkal.	152
17	SH-17	Highway connecting Bangalore with Mysore via Ramnagara, Chennapatna, Maddur, Mandya and Srirangapatna.	143
18	SH-18	Highway connecting Mudhol with Nippani via Chikkodi.	108
19	SH-19	Highway connecting Srirangapatna with Jeevargi via Nagamangala, Hiriur, Chellakere, Bellary, Siraguppa, Sindhanur, Lingasugur, Surpur and Sahapur (including Gulbarga City limits)	592

Sl.No	SH No.	Nomenclature of State Highways	Length in State (Km)
20	SH-20	Highway connecting Raichur with Bachi via Lingasugur, Hungund, Bagalkote, Lokapur, Yeraghatti and Belgaum.	354
21	SH-21	Highway connecting Hallebidu with Anechukur via Hassan, Arakalgudu and Periyapatna.	123
22	SH-22	Highway connecting Gulbarga with Hosur via Afzalpur.	99
23	SH-23	Highway connecting Kalmal with Shiggaon via Manvi, Sindhanur, Gangavathi, Ginigera, Koppal, Mundaragi, Laxmeshwar and Gudigere.	301
24	SH-24	Highway connecting Tarikere with Dharmapura via Hosadurga, V.V Pura and Hiriyr.	136
25	SH-25	Highway connecting Hospet with Shimoga via Mariammanahalli, Harapanahalli, Harihara and Honnali.	184
26	SH-26	Highway connecting Halageri with Hulikal via Honnali, Ayanur, Arasalu and Hosanagar.	188
27	SH-27	Highway connecting Virajpet with Byndoor via Madikeri, Somawarpet, Shakaleshpura, Mudigere, Vastare, Jayapura, Sringeri, Begar and Agumbe.	364
28	SH-28	Highway connecting Supa with Annigeri via Haliyala, Dharwad and Hebsur.	115
29	SH-29	Highway connecting Mudgal with Kudithini via Thavaregere, Gangavathi and Kampli.	121
30	SH-30	Highway connecting Sindhanur with Hemmadaga via Kushtagi, Ron, Saundatti, Belawadi, Bekawadi and Khanapur.	309
31	SH-31	Highway connecting Jath with Jamboti via Ananthapura, Athani, Gurlapura, Gokak, Nesargi, Bailahongal and Khanapura.	245
32	SH-32	Highway connecting Umarga with Sulepet via Alandh, Mahagaon and Chincholi.	117
33	SH-33	Highway connecting Koratagere with Bavali via Tumkur, Kunigal, Maddur, Malavalli, Mysore and H.D.Kote.	265
34	SH-34	Highway connecting Aurad with Sadashivagad via Balki, Basavakalyana, Alandh, Afzalpur, Indi, Bijapur, Jamakhandi, Mudhol, Lokapur, Ramdurg, Saundatti, Dharwad, Ramanagara, Supa (Joida) and Anasi.	680
35	SH-35	Highway connecting Sidlaghatta with Anekal via Hoskote and Kadagodi.	71
36	SH-36	Highway connecting Koppal with Kyadhiguppa via Bevir and Kushtagi.	68
37	SH-37	Highway connecting Subramanya with Udupi via Dharmsthala, Belthangadi and Karkala.	131
38	SH-38	Highway connecting Kollegal with Hasanurghat.	53
39	SH-39	Highway connecting Bangalore with Hesarghatta.	13
40	SH-40	Highway connecting Mylara with Thoranagallu via Hadagali, Hagaribommanahalli and Kudlagi.	157

Sl.No	SH No.	Nomenclature of State Highways	Length in State (Km)
41	SH-41	Highway connecting Shiradon with Lingasugur via Zalki, Indi, Devarahipparagi, Hovinahipparagi, Muddebihal and Narayanapura.	202
42	SH-42	Highway connecting Ankola with Joladharasi in Koppal, Munirabadh Town limits.	11
43	SH-43	Highway connecting Tikota with Kanamadagi.	24
44	SH-44	Highway connecting Sankeshwar with Sangam via Hukeri, Ghataprabha, Arabhavi, Lokapura, Kerakalamatti, Agasanakoppa, Guledhagudda, Kamathagi and Gulur.	193
45	SH-45	Highway connecting Arabhavi with Challakere via Gokak, Naragund, Shalavadi, Sirahatti, Mandaragi, Hadagali, Itagi, Ujjani and Jagalur.	307
46	SH-46	Highway connecting Mundgodu with Anasi via Kalaghatagi, Haliyala and Dandeli,	136
47	SH-47	Highway connecting Mandya with Hadagali via Melukote, Shraavanabelagula, Tiptur, Huliya, Hosadurga, Holalkere, Anagodu and Harapanahalli.	370
48	SH-48	Highway connecting Kumta with Kadamadagi via Siddapura, Soraba, Shikaripura, Honnali, Basavapatna, Chitradurga, Challakere and Pavagada.	366
49	SH-49	Highway connecting Sandur with Siraguppa via Hosapet and Kampli.	108
50	SH-50	Highway connecting Bhatkal with Soraba via Jog, Mavinagundi, Siddapura and Chandragutti .	131
51	SH-51	Highway connecting Basavakalyan with Raichur via Gulbarga, Shahabad, Ravur and Yadhgi.	185
52	SH-52	Highway connecting Thirthahalli with Kundapur via Nagara, Balabere, Hosanagadi and Konibasur.	86
53	SH-53	Highway connecting Kagawad with Kaladhagi via Shedabal, Kudachi, Theradal, Jamakhandi and Katharaki.	128
54	SH-54	Highway connecting Jambooti with Rabakavi via Peeranawadi, Belgam, Budhihal, Akkathangerhal, Kolavi, Mamadhapur, Davaleshwar and Mahalingapura.	128
55	SH-55	Highway connecting Yeraghatti with Babaleshwar via Yadawad, Mudhol, Manthor and Chickkagalagali.	105
56	SH-56	Highway connecting Bedi with Belavanki via Kittur, Gobbaragumpi, Alagawadi, Navalgund and Shelawadi.	108
57	SH-57	Highway connecting Bagalakote with Beligeriranganabetta via Badami, Ron, Huyalgola, Gadag, Sirahatti, Guttal, Ranibennur, Masur, Sikaripura, Shimoga, Lakkavalli, Tharikere, Chikamagalur, Belur, Hassan, Holenarasipura, K.R Nagar, Belikere, Nanjangud and Yalandur.	669
58	SH-59	Highway connecting Kustagi with Pattadhakal.	51
59	SH-60	Highway connecting Hungund with Surpur via Thalikota and Kembavi	122
60	SH-61	Highway connecting Managuli with Bichal via Huvinahipparagi, Basavanabagewadi, Devapura, Devdurga, Siriwara, Neermanvi, Bailmerchad and Rajolibanda.	226

Sl.No	SH No.	Nomenclature of State Highways	Length in State (Km)
61	SH-62	Highway connecting Haveri with Sagara via Lingapura, Chikerur, Hirekerur and Siralakoppa	107
62	SH-63	Highway connecting Raravi with Belur via Siraguppa, Desanur, Gorebal, Karatagi, Kanakagiri, Yelaburga, Sankallur, Sudi and Rajur.	166
63	SH-64	Highway connecting Kadur with Kannagad via Chickamagalur, Mudigere, Belthangadi, Bhantwal and Kalladka.	189
64	SH-65	Highway connecting Malpe with Molakalmur via Udupi, Hebri, Agumbe, Begar, Koppa, Narasimharajapura, Sulageri, Bhadravathi, Chennagiri, Shanthisagar, Davanagere, Jagalur, Mustur and B.G .Kere	329
65	SH-66	Highway connecting Gangamula with Kotigehara via Malleshwara, Kalasa and Magundi.	91
66	SH-67	Highway connecting Mangalore with Athradi via Bajpe, Kattil, Belmane, Kapu and Sirava. (including Hospet Mangalore Road in Mangalore City and Old N.H 48 in Mangalore City Limits)	62
67	SH-68	Highway connecting Tumkur with Honnavar in Badravathi and Shimoga Town Limits.	10
68	SH-69	Highway connecting Kumta with Thadas via Sirsi and Mundagodu.	138
69	SH-70	Highway connecting Belthangadi with Mulki via Mudabedri.	58
70	SH-71	Highway connecting Tiptur with Hassan via Dudda (additional length of 8 Km from Dairy Circle to Devarayapatna (NH-48 in Hassan town limits)	59
71	SH-71 E	Highway connecting Dairy Circle with Busthenahalli (NH-48 in Hassan town limits)	2
72	SH-72	Highway connecting Nippani with Kothalagi via Nanadhi, Examba, Ugar, Mangasuli, Athani and Inapura	133
73	SH-73	Highway connecting Mangasuli with Laxmeshwar via Ugar, Kudachi, Raibag, Kabbur, Belladabagewadi, Ghataprabha, Gudichinamalki, Paschapur, Akkathengarahal, Nesargi, Desanur, Suthaghatti, Matthikoppa, Sampagaon, Neginahal, Nayanagar, Belawadi, Budaraghatti, Thadakoda, Mammighatti, Dharwad, Hubli and Kundagol.(including Old NH 4 between Dharwad and Hubli)	268
74	SH-74	Highway connecting Nelamangala with Chickmangalur via Doddaballapur	69
75	SH-75	Highway connecting Balki with Chincholi via Humnabad, Kabirwadi, Chitaguppa and Inapur	78
76	SH-76	Highway connecting Birur Sammasagi via Ajjampura, Sivani, Channagiri, Santhebennur, Davangere, Harihara, Koda and Thilavalli	205
77	SH-77	Highway connecting Sirsi with Hosnagar via Soraba, Masur, Bettamallppa and Anandhapura	119
78	SH-78	Highway connecting Shettihalli with Ichalakaranji via Dhaddi, Hatharagi, Hukkeri, Chikodi, Examba, Sadalga Highway connecting Borangaon	84
79	SH-79	Highway connecting Srirangapatna with Malemahadeshwarabetta via Sosale, T. Narsipura, Madapura, Kollegal, Ramapura, Kowdalli, Hanur and Palar	154
80	SH-80	Highway connecting Nanjangud with Biligiriranganabetta via Chamarajanagar and Kyathadevara Gudi	86

Sl.No	SH No.	Nomenclature of State Highways	Length in State (Km)
81	SH-81	Highway connecting Yelandur with Gundlupet via Honganur, Chamarajanagar and Terakanambi	47
82	SH-82	Highway connecting Hoskote with Gownipalli via Chintamani	90
83	SH-83	Highway connecting Manuli with Kotamachagi via Kadakola, Gudachi, Salahalli, Konnur, Sirola, Holealur, Ron and Abbigere	120
84	SH-84	Highway connecting Sira with Nanjangud via Gubbi, Kallur, Yadayur, Amruthur, Mandya, Kirugaval, Hosavatti and T. Narsipura	227
85	SH-84 A	Highway connecting NH-212 with SH-84 via Varuna Hoskote Suththur	17
86	SH-84 B	Highway connecting Kupparavalli on SH-84 with Suththur	4
87	SH-85	Highway connecting Bangalore with Jalsoor via Magadi, Huliurdurga, Kowdle, Nagamangala, KR Pet, Saligrama, Ramanathapura, Somwarpet, Vanagur and Subramanya (Saligrama Bypass length - 2.50 Km)	335
88	SH-86	Highway connecting Ramanathapura with Terakanambi via Bachhehalli, Kattemalalavadi, Hunsur, HD Kote, Saragur, Begur and Madapatna	153
89	SH-87	Highway connecting Bangalore with Anekal via Bannurghatta	38
90	SH-88	Highway connecting Mysore with Bantwal via Hunsur, Periyapatna, Kushalanagar, Madikeri, Sulya and Puttur	234
91	SH-89	Highway connecting Madakeri with Kutta via Siddapura, Ghattathala, Chennyanakote, Athur and Gonikoppa	87
92	SH-90	Highway connecting Hunsur with Talakaveri via Virajpet, Napoklu, Nalkanadu and Bhagamandala	118
93	SH-91	Highway connecting Konanur with Makutta via Ramanathapura, Kushalanagar, Siddapura and Virajpet	85
94	SH-92	Highway connecting Kanakapura with Sangam	30
95	SH-93	Highway connecting Khanapura with Talaguppa via Haliyal, Yellapura, Sirsi and Siddapura	193
96	SH-94	Highway connecting Bagepalli with Halagur via Gudibande, Thondebhavi, Mavathur, Kolala, Uradigere, Kyathasandra, Neralapura, Kudur, Magadi, Ramanagar and Channapatna	235
97	SH-95	Highway connecting Hoskote with Venkatagirikote via Malur, Tekal, Bangarpet and Budhigere	82
98	SH-96	Highway connecting Devanahalli with Kempapura via Vijayapura, Vemgal, Kolar, Ghattakamadanahalli and KGF	92
99	SH-97	Highway connecting Sankeshwar with Sadalga via Kowthalli, Nippani and Badakihal	48
100	SH-98	Highway connecting Bhatnagoor with Boragaonwadi via Barawada, Mangura and Karagad	43

Sl.No	SH No.	Nomenclature of State Highways	Length in State (Km)
101	SH-99	Highway connecting Kothapalli with Masti via Gownipalli, Rajepalli, Srinivasapura, Kolar and Tekal	99
102	SH-100	Highway connecting Subramanya with Manjeshwar via Puttur, Parladaka and Ukkada	89
103	SH-101	Highway connecting Surthakal with Kabaka via Bajpe, Gurupura, Bhanthwal, Panemangalore and Vittal	64
104	SH-102	Highway connecting Huliya Keralapura via Jayachamarajapura, Arasikere, Haranahalli, Shanthigrama, Hariharapura and Jakkannahalli of Holenarsipura	126
105	SH-103	Highway connecting Gokak with Saundatti via SH-31 to Muragodu, Karimani, Sogalkshetra, Manuli, Malaprabha and Goravanakolla	80
106	SH-104	Highway connecting Bangalore with Nandi via Kadugondahalli, Nagavara, Thanisandra, Bellahalli, Kannur, Bagalur, Arisinakunte, Devanahalli, Malligenahalli and Karahalli	58
107	SH-105	Highway connecting Humnabad with Bidar	45
108	SH-106	Highway connecting Horanadu with Balur Handpost via Kalasa	42
109	SH-107	Highway connecting Jannapura with Vanagur via Huradi Hanabal Anemahal Skaleshpura Byakarahalli Heththur	56
110	SH-108	Highway connecting Holenarsipura with K.R. Nagar via Hallimysore Saligrama Chunchanakatte Kesthur Koppalu Gate Srirampura Hebbalu	42
111	SH-109	Highway connecting Yarane Junction with Holenarsipura via Bikanahalli Channiganahalli Ankapura Karle Hanumanahalli Paduvalahippe	33
112	SH-110	Highway connecting Belur with Kodlipet via Bichodu Vatehole Kamathikodigi Byrapura Kundur K.Hosakote Mgalu	69
113	SH-111	Highway connecting Doddagangavadi Gate with Chowdanakuppe via Doddagangavadi Virupasandra Tavarekere Bandigowdanapalya	20
114	SH-112	Highway connecting Belur with Somvarpet	63
115	SH-112A	Highway connecting SH-8 with SH-57 via CR Patna Narsipura Kodlipet	22
116	SH-113	Highway connecting Uppinangadi on NH-48 with SH-37 (Bisley Ghat Road - MDR) via Bajaththur Alankaru Balya Kadaba	33
117	SH-114	Highway connecting Gundy on NH-48 with Kalkunda on SH-37 via Shiribagilu Kombharu Bilinele	16
118	SH-115	Highway connecting Kudligere with Kammaraghatta	36
119	SH-116	Highway connecting Tumkur Honnavar road (SH-68) with Birur Sammasagi road (SH-76) via Bhadravathi Shivani road	34
120	SH-117	Highway connecting Ilavala with K.R Nagar via Hoskote, Sagarakatte, Molepette, Lalam Devnahalli	22

Sl.No	SH No.	Nomenclature of State Highways	Length in State (Km)
121	SH-118	Highway connecting Guruvayanakere via Upinahangadi	20
122	SH-119	Highway connecting Ilavala, Sagarakatte, K.R. Nagar with Narayanapura Kegere via B.B Road	7
123	SH-120	Highway connecting Hampapura, Saligrama road	17
124	SH-121	Highway connecting B.T road with Kodihalli via Kyatnahalli, Hardanahalli, Shigaranahalli, Hariharapura, Duda Kunchevu road	17
125	SH-122	Highway connecting Maharastra Border with Murki, Aurad, Handarki (SH-15) via Bidar, Chincholi, Sedem	183
126	SH-123	Highway connecting Andra Pradesh border with Jamaji, Hulsur (Connecting SH-11) via Sandpur, Sangama	70
127	SH-124	Highway connecting with Barked, Bilagi (Connecting SH-55) via Kachari, Padsavalgi, Afzalpur, Gatarga, Devarnavadaga, Sindagi, Byakodu, Tilagola, Talikote, Minajage, Davalgi, Rodgi, Basavna Bagevadi, Telgi, Kolar, Bilagi	294
128	SH-125	Highway Connecting Firozabad cross (NH-218) with Kamalapura State Highway connecting via Shabad, Bankur, Peta Shirur, Mudbala, Kudli, Rumanagada, Chengata	105
129	SH-126	Highway Connecting Andra Pradesh border with Putpak, Bosaga SH via Guru vitkal, Handarki, Satnur, Chitapura, Tengli, Hebbal, Arankal, Varnal, Mudbe	164
130	SH-127	Highway Connecting SH 10 with Mudhol, Yalagera upto Andra Pradesh border via Madana, Itkala, Gunjanur, Anpur, Madavara, Saidapur, Mangal, Sangvara, Joladadgi, Gugal, Herekudlagi, Savantgera, Gabbur, Siravara, Atanur, Machanur, Kuradi, Aroli, Matavari, Uprala, Gunjali, Malapura	175
131	SH-128	Highway Connecting SH-61 with Devdurga, Amarapura, Bagvathi, Hirekondakal, Ayanur, Bellary, via Mundargi, Galgi, Chincharki, Budani, Hirehanagi, Hire Kondakal, Adavi Amareshwara, Hosur, Valabellary, Ibrahimpur, Kundroli, Kuruvali, Raravi, Darur, Talur, Ropanagudi, Chilagurki	231
132	SH-129	Highway Connecting Chickhosur, Mudgal, Mundargi, via Banigal, Ramatnal, Mudanur, Kustagi, Sankapur, Kansagar, Tumbargude, Yalaburgi, Sungada, Kukanur, Banapur, Halgera, Hire Sindagi, Katarki, Mantur, Keslapura, Hosruru	167
133	SH-130	Highway Connecting Yalburga, Kanakagiri, Gangavati, Munerabad via Vajrabande, Hirevenkalkunte, Talkere, Gundala, Basrehal, Gonal, Honnaval, Hosakere, Hosalii, Hanumanahalli, Singapura (Conneting NH-13)	123
134	SH-131	Highway Connecting Hampi, Kamalapura, Hagarebomnahalli via Papnayakanahalli, Joga, Tolur, Lingadahalli, Rajapura, Bilgatte, Chick Joganahalli, MB Aaikanahalli, Banavikal, Kottur, Dopadahalli, Benal kal	208
135	SH-132	Highway Connecting Kampli, Kuru godu, Kudtenni, Bellary, Moka, Alur	100
136	SH-133	Highway Connecting Soreban, Chitargi, Kodalsangama (Connecting SH-60) via Karlekoppa, Gomanakoppa, Chola Chaugadda, Hirenasbi, Katapura, Ihole, Amungad, Chitargi, Dhanur	109
137	SH-134	Highway Connecting Badami, Godaji, Gokak falls via Karur, Batkurki, Chandargi, Hirekoppa, K.S Bagachikoppa, Malikere, Munikere, Kaujalagi, Gokak	120
138	SH-135	Highway Connecting Banashankari, Mahakota, Almatti Dam via Nandikeshwara, Guledagudda, Shirur, Benekatte, Bhagvathi, Rampura	71

Sl.No	SH No.	Nomenclature of State Highways	Length in State (Km)
139	SH-136	State Highway Connecting Gajendragad, Sorab via Dindur, Nagendragad, Mushagere, Honegannur, Holemanner, Malvada, Belavneke, Lingadal, Hombala, Hulakotte, Kuntakotte, Anthur, Bemtur, Nelaguda, Mulagunda, Basapura, Shirahatti, Kadakole, Muradi, Bagewadi, Bidaralli, Ballehosur, Kittur, Horiti, Kanvalli, Mottebennur, Byadgi, Hamsabavi, Chickerur, Yalageri, Thogarsi, Udri	286
140	SH-137	Highway Connecting Navalgunda, Banavasi, Mugavalli via Annegeri, Bandivadi, Kundagol, Hachinal, Kobihal, Hulgur, Karadgi, Savnur, Bankapur, Masanakatte, KoprasiKoppa, Bhadrapura, Mulagi, Basi	141
141	SH-138	Highway Connecting Nagaragali, Kattokol via Nandiga Parishchad, MK Hubli, Tigadi, Inchala, Murugodu	113
142	SH-139	Highway Connecting Yargatti, Mudhol via Kattokol, Turnur, Budne	78
143	SH-140	Highway Connecting Alanvar, Betigere via Hindasagere, Jodgere, Kuluvalli, Kittur, Sangoli, Hulki, Akkasagara	85
144	SH-141	Highway Connecting Maharastra border with Rakasakoppa, Sutugatte (NH-4) via Belagundi, Kalaholu, Solaga, Hindalga, Handiganur	46
145	SH-142	Highway Connecting Kumta, Kurlekoppa via Aminahalli, Nilakunda, Kol, Sirsi	50
146	SH-143	Highway Connecting Gokarna, Vadi, Devnalli via Sanikatta, Heluru, Chinagara	82
147	SH-144	Highway Connecting Honavar, Munase via Salikod, Dodmane, Vandana	60
148	SH-145	Highway Connecting Songemane, Unchalli falls via Gidamavanakatte, Kansur, Ballekoppa	72
149	SH-146	Highway Connecting Ulavi, Diga to Goa border via Kumbaravada, Kiruvati	63
150	SH-147	Highway Connecting Chennarayapatna with Nugehalli road (link road NH-48 joining to SH-47)	17
151	SH-148	Highway Connecting Kuppali, Kavishaila, Gadikalu, Katehaklu, Heddu, Mahrshi, Bejavalli, Ayanur, Sudur, Chordi, Gama, Chinchinkoppa, Malenahalli via Hirekerur joining road.	143
152	SH-149	Highway Connecting Shapura to Shivrampura to AP border SH via Vadi, Shabad, Gulbarga, Hebal, Kalagi, Mangalgi, Nidagunda via Konchavaram	176
153	SH-150	Highway Connecting Davangere, Holalu SH via Kanchikere-Bendekere	71
154	SH-151	Highway Connecting Itagi-Kanchikere SH via Kenchamanahalli-Maidur-Chegatikere-Naziragar-Arasikere	45
155	SH-152	Highway Connecting NH-206 Kadur-Maravanje-Belgur via Srirampura joining SH	51
156	SH-153	Highway Connecting NH-206 Kadur-Hirenallur-Ajjampura-yaraganahalli via NH-13 joining Hollalkere nearby passing SH	43
157		Highway Connecting Madras-Cannanore road (Paschima vahini-Ilavala)	17.5