

Chapter VII

TRANSPORT AND COMMUNICATIONS

Karnataka has a rich cultural heritage. In the ancient Indian works of Kautilya, and foreign accounts of, Pliny Ptolemy and Alberuni there are reference to transport and conveyance system pertaining to Karnataka also. Early settlements of prehistoric culture and the existence of Atokan Rock edicts in different parts of Karnataka speaks much about the socio-cultural contacts that might have prevailed in those days, Hala, the Satavahana ruler of Kuntala, in his work Gatha Saptasathi, a poetic compilation also refer to major and minor roads. Moreover existence of early 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 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 'Doddamarga' was 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. One bridge was connecting Hampi and Anegondi across the Tungabhadra river. Similar old bridges can also be seen at Harihara, Srirangalattana, Shivanasamudra, Panemangalore and such other places.

Construction of systematic roads in the Bombay Karnataka area was started only after 1856. Among them, Belgaum-Hubli road on the Pune-Harihara route, and Dharwad-Mundgod-Sirsi-Kumta roads were prominent. The oldest road in the Gulbarga area, is the road from Gulbarga to Firozabad *via* Kotnur, Nandikere, Shirur 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 Mangalore via Bangalore, Mysore and Madikeri. The Mangalore 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, Mangalore and Kasargod, had series of rivers and streams to be crossed by ferries and boats. In the early days, condition of roads in Bijapur district was not satisfactory. There were only two roads in 1820, and the first one was between Shikaripur to Sholapur via

Bijapur 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 such roads. The Chiplun (Ratnagiri dist.)-Hyderabad Class I Road was passing through Bijapur district. Another Class I road originating from Sholapur was connecting Bijapur with Hubli. The most important link in the northern circle of the Bombay Presidency was Pune-Bangalore road. In the days of Commissioner Cubbon, he saw to it that Bangalore, the capital of Mysore 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.



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

The road communication system in the Old Mysore State was very good in the pre-independence period. 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 district was about 2,000 km. At the time of the merger of Bellary with the Old Mysore 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 Mysore 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 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, Gulbarga, Bellary, Raichur and Koppal was very poor. 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.

The total road length in 1981 was 98,523 km and an account of implementation of several road schemes, it went up 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. Unmetalled roads in the control of P.W.D. in 1956 were 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 Gulbarga division (Gulbarga, Bellary, Bidar, Raichur and Koppal Districts), 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 Rs. 1,694.39 Lakhs.

The total road length in the State by 1998 was 1,42,687 km comprising 2,335 km National Highways, 11,037 km State Highways, 28,301 km Major District Roads, 1,644 km Other District Roads, 42,791 km Village Roads, 31,583 km TDB Roads, 9,417 km Irrigation Dept. Roads and 2,582 km Forest Dept. Roads, the excluding 8,366 km of Municipality Roads and 4,665 km of

Grampanchayati 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 is 64 km. These are above the national average of 238.8 km and 61.3 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 1,323 major and minor Bridges within the State. During the 9th plan(1997-2002) , a sum of Rs. 953 crores has been provided for construction, improvement and maintenance of roads and bridges in the state. During the year 2000, 72 roads and 17 bridges were completed with NABARD assistance. 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 up to 1,67,779 km.s (comprised of 52,205 kms PWD roads and 1,15,574 Kms of Rural roads) while 3973 km. of national highways, 17,240kms of state highways and 30,992 kms of major district roads is controlled by the PWD. The remaining 1,15,574 km.s 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 kms roads of unsurfaced nature. As on 2008 March, the total road length in the state had enhanced to 2,07,379 kms (comprised of 62, 654 km maintained by PWD and 1,44, 725 kms of rural roads) maintained by Rural Development Panchayat Raj Department.

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. It was proposed to declare, another 13 roads with a length of 4,765 km as National Highways. During the last decade, 30 km of the National Highway No.4 has been widened from two lanes to four lanes. About 231 km length of the National Highway nos. 9, 13, 17 and 48 were widened, from single lane to double.

The Kozhikode-Kollegal section passing through Sultan Batheri, Gundlupet, Nanjangud, Mysore, T.Narasipur, Mugur, Uttamballi, and the road between Bangalore-Dindigal via Kanakapura, Halagur, Malavalli, Sattegal, Kollegal, Yelandur, Santhemarahalli and Chamarajanagar 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 Bijapur-Hubli 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 Hubli-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 Bangalore to Tamilnadu border near Hosur). In february 2004, NH-218 has been further extended from Bijapur upto Humnabad (220 kms.) via Jevargi in Gulbarga district. As a result Gulbarga district also figures in the country map of National Highways. Likewise the road linking Gundlupet with NH-212 has also been declared as NH-67 in february 2004. As a result as on 31-03-2008, there were 14 National Highways (viz., N.H.-4, N.H.-4A, N.H.-7, 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 and N.H.-218) passing through the State with a road length of 3,973 km excluding the districts of Kodagu and Raichur which are deprived of National Highways, all other districts have National Highways passing through their jurisdictions. Uttarakannada district with 329 km NH, tops the list, Mandya and Gadag districts with 73 kms apiece are at the bottom.

NH-4 which falls under the Golden Quadrilateral Highway Project and NH 7 which come under the North the South Corridor Project of 6 lanes, planned at National level and being executed through National Highway Authority, (NHAI) is under progress in the State. As a result NH-4 and NH-7 are gradually improving. This work is under progress even now.

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 in the state having 17240 kms road length. As on March 2008, it has raised to 20, 738 kms in the state. Belgaum district with 2341 kms tops the list. Bangalore (Urban) district with 171 kms at the bottom. The road widening work on ST 17 (Mysore-Bangalore) and (Srirangapattana-Bidar) has also brought the expected results with free traffic movement.

Major District Roads: As on March 2008, there was 37, 943 km roads of this category was in the State, maintained by the PWD. If Tumkur district with 3,761 kms was ranked first. Bangalore (Urban) with 456 km was at the bottom.

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.



Major District Road

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 new roads. Between 1985-86 to 1991-92, an amount of Rs.1.60 crore was incurred for constructing 77 km of 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 1974-75 to 1991-92. Till the end of 1991-92, the villages linked with All-weather roads were 12,649. 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. road length. Construction of roads under people's 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 executing this programme. During 1987-88 to 1991-92 about 113 km. village limit 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 Bangalore with an authorised initial share capital of Rs. 200 crores aimed at improving roads, bridges etc., with developmental programmes. It has taken 5 roads for upgradation with the financial aid of Rs. 750 crores from HUDCO. By 2000 among the 27,066 inhabited villages in the State, 15,800 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 roads. But due to various steps taken 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 roads in the state.

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 30.40 m 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 31-3-1992. By 1998 there were 97,781 culverts, 13,990 minor bridges (6-60 m) and 469 major bridges (60 m 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 (6-30 mt.) and 449 major bridges (30 mt. and above). Among them 6,080 bridges 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.s t 300 mt.s and above, were in the existence on various rivers and streams in the state. Among them, of Dakshina Kannada district with 34 topped the list Bangalore Urban District had no major river bridge worth mentioning. As on March 2007, of the 524 major bridges in the state. If 309 were located in the south zone, the remaining 215 were situated in north zone.

Bangalore City and its Fly-overs : The Fly-over built in Bangalore 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 Mysore 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 cablestay bridge); fly-overs built at Dairy circle (Hosur Road), at National College; at Malleshwaram Circle; at Basaveshwara Nagar, at Hebbal Tank, at Marathalli and Mekri Circle (Bellary Road) at Yeshwanthpur, at Jayadeva Hospital, at Rajajinagar entrance, at Palace Guttahalli, 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 bridge made near fire brigade station in Mysore is worth mentioning.

The government has signed with the Kalyani groups of India for the construction of Bangalore-Mysore 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.



Fly-over, Hebbal, Bangalore



Fly-over, Near K.R. Market Bangalore

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 licences 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. 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 98-99. By March 2000, there were 33,51,076 motor vehicles registered in the state with Bangalore division having highest number (17,84,812) of registered motor vehicles in the State. The same had gone up to 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 Bangalore 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 December 1999, March 2003, 2007 and 2008. It has increased to 80.25 lakhs by 2008.



BMTC Bus stand, Majestic Bangalore

District-wise Registered Motor Vehicles in Karnataka

SI. No	District	December 1999	March 2003	March 2007	March 2008
1.	Bangalore (Urban)	11,69,461	13,70,291	2,70,076	30,09,565
2.	Bangalore (Rural) (including Ramanagar dt.)	1,35,982	1,42,403	1,93,776	1,97,155
3.	Ramanagar (newly formed in 2007)				1,01,187
4.	Chitradurga	42,881	59,425	92,841	1,05,050
5.	Davanagere	94,514	1,30,244	1,85,322	2,03,772
6.	Kolar (including Chickballpur district)	89,391	1,19,246	1,84,073	1,35,307
7.	Chickballapur district new formed in 2007				62,261
8.	Shimoga	1,07,743	1,50,025	2,14,542	2,32,320
9.	Tumkur	98,561	1,36,691	2,14,349	2,41,804
10.	Belgaum	2,20,781	3,00,082	4,33,038	4,67,354
11.	Bijapur	49,430	78,700	1,11,826	1,23,888
12.	Bagalkot	51,383	73,573	1,19,507	1,34,458

13.	Dharwad	1,30,528	1,69,677	2,43,744	2,65,042
14.	Gadag	32,916	42,573	61,944	67,897
15.	Haveri	36,739	59,583	92,961	1,02,398
16.	Uttara Kannada	69,871	97,952	1,33,369	1,44,583
17.	Bellary	89,208	1,20,811	1,88,011	2,20,135
18.	Bidar	37,319	50,341	74,453	83,163
19.	Gulbarga	80,629	1,21,189	1,83,699	2,04,307
20.	Raichur	40,057	61,684	98,364	1,00,436
21.	Koppal	25,594	39,1779	62,716	69,203
22.	Chikmagalur	53,327	71,280	1,05,077	1,16,890
23.	Dakshina Kannada	1,46,709	1,95,444	2,85,241	3,13,462
24.	Udupi	58,531	84,146	1,26,566	1,39,228
25.	Hassan	66,089	89,737	1,38,675	1,54,679
26.	Coorg	41,765	47,267	63,934	69,723
27.	Mandya	51,968	71,233	1,11,127	1,29,240
28.	Mysore	2,20,281	2,81,637	4,14,088	4,53,543
29.	Chamarajanagar	19,005	26,0911	45,530	52,048
	STATE TOTAL	32,60,663	44,61,105	69,39,710	75,19,098

Transport Department reports.

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 Regional Transport Authorities under this State office grants permit to the transport vehicles or renew or cancel them

This department is authorised to issue both Driver's and Conductor's Licences and by the end of December 1999, 28,12,183 driver's and 3,84,679 conductor's licences were issued. Likewise, by December 2002, they went upto 35,56,560 and 37,30,797 respectively. They went on increasing and as on 2005 march there were 43,86,951 driving licenses and 4251280 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, 40,789 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 Bangalore, issuing of plastic license cards being issued by using video image superior quality cards is being given to the licence holders

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 218 Smoke Emission Checking Centres in the State, of which 115 are in Bangalore. Since January 1998, the government has restricted issuing Auto permits in Bangalore 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 a revenue of Rs 320 crores at the end of December 1999. Computerisation of the department is under progress. Radio Taxi facilities being introduced in Bangalore *city* to provide better transport facilities to the publics and at present 126 radio taxis are serving on the roads of Bangalore. It is proposed to provide the same facility even to the other important towns like Mysore, Hubli, Dharwad and Belgaum. As per the motor vehicle act, the department is insisting on the adoption of speed brakers to transport and goods vehicles and as made it compulsory from 2008. But the Goods vehicle owners have expressed their dissatisfaction over this issue.

Road Accidents : Road accidents occurred dams the last five years are alarming. During 2001-02, there were 33,000 accidents resulting in 5,805 death and 42,193 persons injury. During 2004-05 due 38,869 accidents 6497 persons died and 50,395 persons were injured. Bangalore district with 9249 cases, 912 deaths and 6999 injuries.

Public Conveyance

Prior to 1948, public conveyance was solely in the hands of private entrepreneurs. In earlier times, bullock, buffallo, ass and horses were the main beasts of burden. 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 Mysore and in 1920, there were already private buses serving the public. Around 1935, their number was 100. The Mysore Traffic Board started in 1936 in old Mysore area controlled the public conveyance.

After independence, when nationalisation of roads was initiated in 1948, Mysore State Road Transport Department (MSRTC) 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. Although the nationalization of Road Transport in Hyderabad State had been initiated as early as 1936 by the Hyderabad State Road Transport Department established during 1932, its impact was very limited, Contrary to this, in Bombay Presidency nationalisation of Road Transport was implemented in 1947, was extended even to Belgaum Division in 1949 with the name "State Transport" (ST). At the time of Unification in 1956, it received 825 buses and 778 scheduled routes from Bombay, Hyderabad and Old Mysore 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 in 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 Bangalore (2), Mysore, Belgaum and Gulbarga, having control over 12 divisions and 68 depots. It had 5,700 passenger buses covering 3,855 scheduled routes of 11.20 lakh km route milage per day and providing service to 20.9 lakh passengers.

In November 1985, Gulbarga, Bidar, Bijapur, Bellary, Hassan and Raichur districts nationalisation process was completed and partial nationalisation being done in the districts of Kolar, Bangalore (Rural and Urban), Mysore and Chikmagalur. By 1991, KSRTC had 6 Regional Offices, 14 divisions and 91 Depots 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 route km and 31.01 lakhs of daily km service to the public with a daily revenue of Rs. 350.38 lakhs. On 15th August 1997, the government divided KSRTC into KSRTC (Old Mysore-Hyderabad area), Bangalore Metropolitan Transport Corporation (BMTC) (Bangalore City); and on 1-11-1997, the North Western Karnataka Road Transport Corporation (NWKRTC) with its headquarters at Hubli, covering Hubli, Gadag, UK, Belgaum, Bijapur and Bagalkot divisions was inaugurated.

Bangalore Metropolitan Transport Corporation (BMTC) separated from KSRTC on 15-8-1997, is entrusted with the work of serving the public of Bangalore Metropolitan City with sincerity and punctuality. Prior to its separation, it was looked after by Bangalore City Transports (North and South divisions) through 13 depots with 1839 schedules, 1991 buses and a central workshop. BMTC covers Bangalore city with 30 km 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. At present it is operating 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 Rs. 20,425.84 lakhs and is running under profit. Recently during 2000-01, KSRTC has undergone 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 Gulbarga 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 Bangalore and Mysore cities have received good public response. Besides the 7th days tourist pass scheme introduced the transport corporation is also noteworthy.

BMTC's average no. of buses run on roads, per day was 3533 with an route mileage of 3056-82 kms serving 11,453.70 lakh passengers and the annual revenue derived was Rs. 50,618.65 lakhs for the year 2004-05. Likewise the details of Karnataka road transport corporation (2004-05) is as follows :

Corporations and their headquarters	No. of buses on road per day	Gross km operated annually	Passengers carried annually	Revenue Annually
KSRTC (Central)	4,347	5972.34 (lakh)	5847.31 lakh	79899.21
NEKRTC Gulbarga	2,290.6	1759.30	3,289.	32471.15
NWKRTC Hubli	3,644.4	3,869.70	6,248.80	55,676.26
BMTC (Bangalore)	3,533.4	3,056.82	11,453.70	50,618.65

As on March 2008, BMTC had 30 depots, one workshop and covered 4773 schedules with 4,891 buses serving 10.56 lakh schedule km daily. Over 2,064 scheduled routes apart from the 299 Pushpak services and gaining an annual profit of Rs. 810.80 crores. By Dec. 2009 it has 5271 buses.

Likewise KSRTC has 12 divisions, 59 depots, two regional workshops and one printing press. It had 5,950 buses with 5,478 schedules, 5,762 routes and 20.80 lakh daily km. service and gained Rs. 3,389.77 lakhs as net profit during 2006-07. By December 2009 it had 6,477 buses in its depots. Likewise NWKRTC had 4889 buses and NEKRTC had 2,742 buses under their jurisdiction for public service.

The reservation system is networked and computerised 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, semiluxury, express and rural transport buses.

Namma Metro : In order to control the traffic pressure on the roads of the Bangalore 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 Commissioned Delhi Metro Rail Corporation (DMRC) who with the help of Rail India Technical and Economic Services (RITES) conducted a study. It concluded that Bangalore with its projected Peak Hour Peak Direction Trips of about 40,000 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 Bangalore 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 Bangalore 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.

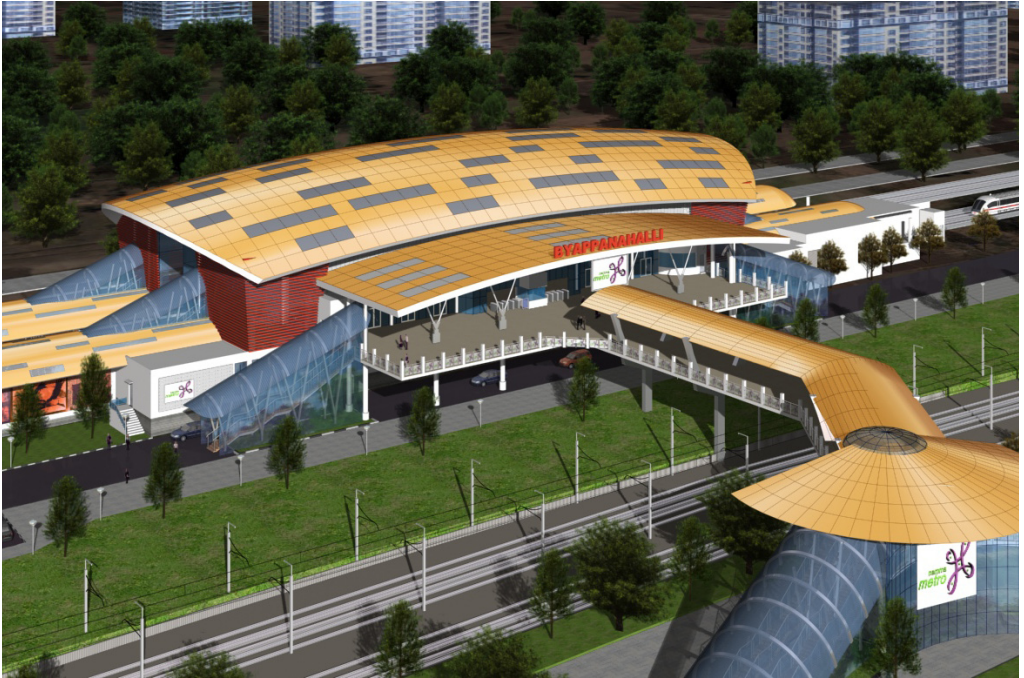
The Bangalore Metro Rail finally took shape with the Karnataka Government clearing the project in March 2005 and union government giving its accord in April 2006.

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, Trnitiy Circle, M.G. Road, Cricket Stadium, Vidhana Soudha, Central College and after touching Majestic and City Railway Station continue towards Tollgate, Hosahalli, Vijayanagara, Deepanjali Nagar and terminates at the Mysore Road. The North-south corridor of 14.90 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, Lalbagh, Southend Circle, Jayanagar and terminate at R.V. Road area Terminal. Out of the 33 km route 6.76 km in Majestic will be underground near City Railway Station, City

Market, Vidhana Souda and Swastik. Most of the rest will be elevated tracks with little surface level grader tracks.



Proposed Namma Metro, Bangalore



Proposed Metro Station, Byappanahalli ,Bangalore

The construction work has started from Byappanahalli point and the full network of phase I is expected to be commissioned by 2011. The track would be standard gauge of 1.435 mts. The journey time between north-south corridor 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 is estimated at 10.20 lakhs in 2011 and 16.10 lakh 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 with 30%, 25% and 45% respectively.

The total land required for this project is 202.22 acres comprised of 138 acres central government 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.

RAILWAYS

The first railway line in the old Mysore Area was from Bangalore to Madras (Broad-gauge), laid by the Madras Railway Company and was opened for traffic in August 1864. In 1877-78, construction work of another important section, Bangalore-Mysore Metre - gauge line of about 138 km long was taken up and completed in stages and commissioned in February 1882 by spending a sum of Rs. 55.48 lakhs. The Metre - gauge section between Bangalore to Tumkur was started in October 1882 and about 69 km line was opened for traffic in 1884. Later, it 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 Belgaum and Dharwad districts was laid in 1882 and completed during 1887. Goa was linked up with Londa in Belgaum district. As a result, direct link was established between Pune-Bangalore *via* Harihara. The Birur-Shimoga-Bidare line having a distance of about 64 km. was constructed by the Princely government itself in 1899. This line linked Shimoga with the Bangalore-Harihara sections. For speedy execution of the works, State Railway Construction Department was set up in June 1912. The Mysore-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 km in 1911-12 to 913 km in 1923-24. Later Birur-Shimoga line was extended in stages upto Talguppa (1940), a distance of about 161 km.

In Gulbarga area, the Guntakal-Raichur-Gulbarga-Sholapur section 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 Gulbarga district) was commissioned for traffic in 1874 and a vital link was established between Hyderabad, Madras and Bombay. The Bellary-Hospet line was laid in 1884 followed by the Metre - gauge track between Hubli and Hospet laid in 1885 which linked the southern states. The Broad - gauge line of the Vikarabad-Parli-Bajjnath section, runs through Bidar district for a distance of 78.73 km, started operating since 1932.

Dakshina Kannada had only 12.87 km railway track leading towards Madras before 1956. When the Hassan-Mangalore 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, Mysore 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 Secunderabad was created.



Old Railway Engine, Railway Museum, Mysore

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 163 km. The Indian Railways, have undertaken modernisation and many development programmes for the expansion of the railway network in the country. Under the uni-gauge programme, 178 km. metre-gauge track between Dharmavaram-Bangalore was converted into Broad - gauge and opened for traffic in January 1985. Similarly the Mysore-Bangalore 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 (Mysore) is being modified to handle Broad - gauge rolling stock. Some of the railway lines converted into broad - gauge and opened for traffic are Bangalore City-Yeshwanthpur-Yelahanka (17.50km), Bellary-Rayadurga (54km), Bangalore-Tumkur-Arasikere-Shimoga (in stages completed) and Rayadurga-Chitradurga-Chikjajur. Electrification work of the Bangalore 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 Bijapur is being completed and since May 1998, rails are on operation. The Bijapur-Bagalkot-Gadag gauge conversion is also completed recently and the trains are running since 2009 January. The Mysore-Arasikere line conversion is also completed and put to traffic from 1998. Hassan-Mangalore gauge conversion work started in 1995 is completed and (2005) train service upto Puttur (Mangalore side) and Sakleshpur (Hassan side) was made available. But due to strong public opinion the railways have thrown open the Hassan-Mangalore broad-gauge line for passenger movement since Dec.8th 2007 and trains have started flying between Yashavanthapur and Mangaloe via., Mysore-Hassan. The Railway service to Mangalore via Tumkur Arasikere and Hassan is yet to be flagged off.

The ambitious Konkan Railway Project for connecting Mangalore with Roha was opened for freight traffic in 1996. The Mangalore-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 Mangalore and Bombay was reduced by 1,200 km and Mangalore-Delhi by 800 km. In 1998 (31-3-98) the total length in the State was 3270 km. of which Broad - gauge is 2706 & Metre-gauge 564. The South Western Railway Zone was newly commissioned in October 2002 and Bangalore was made its headquarters. But after Public Protest in North Karnataka, its Headquarters was shifted to Hubli. The track doubling work between Bangalore 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 Metre - gauge line. There were 354 railway

stations in the state. At present, (as on 2009 Jan) excluding the Shimoga-Talaguppa line all other are Broad gauge lines. The Broad-gauge conversion of Mysore-Nanjangud and Chamarajanagar route was taken in 1997. In the first phase Mysore Nanjangud work was completed in June 2008 and on Nov 2008 Nanjangud-Chamarajnagar railway work was completed and thrown open for traffic. No Narrow gauge lines are operating in the State. Chickballapur-Kolar 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 Mysore-Madikeri rail line. Hubli-Ankola line is also being planned. The Bangalore-Mysore 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 upto Ramanagara is also completed recently and track service is made available to the public since Nov March 2008. The laying of new railway line between Bangalore and Hassan via Nelamangala, Yedeyur, Belur Shraavanabelagola and Channarayapatna under progress and the work between Hassan-Channarayapatna and Sravanabelagola was completed in March 2006. The remaining work is under progress and needs to be completed briskly. A new survey is being conducted to connect Bangalore with Chamarajnagar via, Kanakapura, Malvalli and Kollegal. Amidst all these, the long pending rail route connecting Chamarajanagar with Mettupalyam via Erode needs an early attention. As on March 2008, Karnataka had 3171.76 kms rail (2,761 kms line of broad gauge and 410.65 km metre gauge).

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 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 Mysore where several unique exhibits are displayed. The Railway workshop functioning at Hubli, is looking after rolling stock in respect of Metre - gauge. With the metre-gauge engine being rolled out from the workshop in 1994, this section is no more in existence.

Railway lines opened for Traffic in the State since 1861

Sl. No.	Railway line	Gauge	Km	Beginning Year	Broad gauge conversion year
1.	Bombay-Madras-(Sholapur-Gulbarga-Raichur-Guntkal)	Broad - gauge	220	1861-71	-
2.	Bangalore-Madras	Broad - gauge	88	1864	-
3.	Guntkal-Bellary	Broad - gauge	43	1871	-
4.	Wadi-Chitapur-Sedam-Secunderabad	Broad - gauge	43	1874	-
5.	Bangalore-Mysore	Metre - gauge	138	1881-82	1993
6.	Bangalore-Tumkur-Gubbi	Metre - gauge	87	1884	2001
7.	Bellary-Hospet	Metre - gauge	59	1884	1995
8.	Hubli-Gadag-Hospet	Metre - gauge	144	1885	1995
9.	Gadag-Bijapur-Hotgi-Sholapur	Metre - gauge	249	1885	2008
10.	Hubli-Londa-Belgaum-Pune	Metre - gauge	115	1887	1995
11.	Harihar-Hubli	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.	Mysore-Nanjangud (upto Sujatha Mills)	Metre - gauge	24	1891	2008 Jun
16.	Bangarpet(Bowringpet)-Marikuppam	Broad - gauge	14.84	1894	-
17.	Sujatha Mills-Nanjangud	Metre - gauge	0.76	1899	2008 Jun
18.	Birur-Shimoga-Bidare	Metre - gauge	61.15	1899	NA
19.	Bellary-Rayadurga	Metre - gauge	53.67	1905	NA
20.	Hospet-Kottur	Metre - gauge	69.46	1905	NA
21.	Gunda Road Jn-Swamihall	Metre - gauge	21	1906-07	NA
22.	Madras-Mangalore (upto State Border)	Metre - gauge	12. 87	1907	
23.	Bowringpet (Bangarpet)-Kolar	Narrow - gauge	17.60	1913	Broad Gauged
24.	Chikballapur-Yelahanka	Narrow - gauge	abandoned	1915	NA
25.	Chikballapur-Kolar	Narrow - gauge	abandoned	1916	Under

26.	Yelahanka-Yeshwanthpur-Bangalore	Narrow - gauge	25	1918	
27.	Mysore-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-Chamarajanagar	Metre - gauge	35	1926	Nov 2008
31	Shimoga-Shimoga Bidare	Metre - gauge	06	1929	NA
32	Vikarabad-Parli-Baijanath (Bidar,Khanapur, Kamalapur)	Broad - gauge	78.32	1932	-
33	Shimoga-Talaguppa	Metre - gauge	93	1940	Still meter gauge
34	Guntkal-Hospet (Separate Line)	Broad - gauge	102	1966	-
35	Hassan-Mangalore	Metre - gauge	189	1979	2005
36	Mangalore-Mangalore New port	Broad - gauge	11	1983	-
37	Mangalore-Roha (Konkan Express)	Broad - gauge	76	1996	-
38	Bangalore - Kuppam (double line)	Broad - gauge	N.A.	2004	-

* Excluding Shimoga-Talaguppa line which is also under conversion all other railway lines are either Broad-Gauge lines or else converted to Broad - gauge. At present, excluding the abandoned Chikballapur-Kolar Narrow-gauge line, the remaining Narrow gauge lines have been converted into Broad-gauge lines. There is a proposal even for its conversion.

Railway 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. As a part of Sholapur - Gadag Gauge conversion project (50;50 share) Bagalkot - Gadag work, is nearing completion.

Shimoga - Talguppa Gauge conversion project is taken up under 50;50 cost sharing basis with the railways and has made provision for Rs. 100 crores during. Kottur - Harihara new railway (67kms) line projects is taken up under 2/3;1/3 cost sharing basis. Ramanagar - Mysore railway doubling is under progress. Bidar - Gulbarga (104 kms) 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 cost sharing basis.

AIR TRANSPORT

The first aeroplane 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 Bellary. Later, Deccan Airways of the Hyderabad Government operated a daily flight from Hyderabad to Bangalore and back in 1946. On 1st August, 1953, Airlines in the country were nationalised and Government owned Indian Airlines started connecting Bangalore with various other cities in the country. The 'open skies' policy of the Centre has ended the monopoly of plying their aircraft between Bangalore, Bombay, Delhi, Hyderabad etc. The private companies serving in the field were Jet Airways, East-West Airlines, Damania Airways, Deccan Airlines, Sahara and Modi Luft. Apart from Bangalore, the cities of Belgaum, Mangalore and Hubli are also on the air map of the country.

Bangalore Airport, constructed in an area of 865 acres of land which belongs to HAL and the Airports Authority of India. In the Indian Airlines network, Bangalore 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 Bangalore Airport per month and the incoming and outgoing cargo handled during 1992-93 was 5,104 and 6,711 M.Tonnes respectively. During 1991-92, the incoming and outgoing cargo handled by the Mangalore Airport was 99 and 57 M. tonnes respectively. Direct flight to Perth (Australia) and Singapore have begun from Bangalore from 1995. There is a proposal to construct an International Airport near Bangalore at Devanahalli. The State run 'Flying Training School' was started in 1948 at Bangalore 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 pilots licence, 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 estimated 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 International Airport this airport has been closed.



ATC Tower B.I.A.L. Bangalore



Terminal Building Check in Counters

Mangalore Airport: The Mangalore 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 Avrose flights. In 1972, daily service between Madras and Bombay via Bangalore, Mangalore and Belgaun was started. It resulted in 14 planes passing through Mangalore Airport. In 1996 an office was started to receive the passport application from aspirants at Mangalore. At present daily service is available from Mangalore to Mumbai, Bangalore, Madras and other places. The flight services are operated by Indian Airlines, Deccan Airlines and Jet Airlines. Due to the formation, a new runway to facilitate the requirement for international flights by the Indian Aviation Authority, the Airport is providing services of international standard.

Bangalore International Airport: At Devanahalli the Bangalore International Airport has started working from May 24th 2008. This project commenced in July 2005, spreading over an area of 4000 acres. So far Rs.2,530 crores being spent on this project. It is being 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 Bangalore City. It is expected that on an average 30 flights per hour being landed at this airport and nearly 10 lakh passenger traffic is expected over the years. The Airport authority has turned all stones to extend attractive service to its customers. Signal free traffic services being provided to this airport from different parts of the city.

There is a proposal to provide Highspeed Rail link to the BIA located at Devanahalli. The government has planned to construct Airports at all District headquarters in the state. Improving and upgrading of Mangalore, Hubli, and Belgaum Airports is under progress.

Besides, the government has planned to develop four green-field air ports at Gulbarga, Shimoga, Hassan and Bijapur. The government has planned to build Airstrips for the landing of aeroplanes at Davanagere, Raichur, Chikmagalur, Udupi, Madikeri - Kushalnagara, Gokarna, 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 Bangalore 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), Bangalore. It is providing passport facilities to the people in Karnataka. The number of passports issued 2000 during 1978 was 17,146. It enhanced to 1,23,150 in 1992.

By the end of 2000, out of the 1,31,769 fresh applications received, 1,28,943 were disposed of by issuing passports. Generally it takes 30 to 40 days to issue fresh passports. Under Tatkal Scheme, Passports are issued quickly by

charging addition 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 make 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 help the public to know the position of their applications and objections if any. It has its passport application collection centres at Mangalore started in 1996, and at Gulbarga 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.

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 mechanised 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 upstreams 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 estuaries and backwaters. In Uttara Kannada district, some portions of the Gangavali, the Aghanashini, the Kali and the 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 Kannada 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 2007, there were altogether 356 ferries operating in the State. Of them while 17 were managed departmently and 45 have been given to Private agencies on auction and a sum of Rs. 5,65,583 being derived as revenue out of it.



Nada Doni

Statistics of Men and Materials Transported by the Departmental Ferries (2006-07)

(in tonnes)

Particulars	1999-2000	2003-04	2006-07
Passengers	11,41,954	39,76,570	7,88,727
Scooters/Motor Cycles	8,217	32,812	35,387
Rickshaws	46	67	04
Cars	2,248	2,837	10,238
Vans	940	1,806	1,322
Trucks	67	68	882
Buses	7,571	5,329	6,442
Carts	47	-	-
Jeeps	2,428	3,017	6,298
Cycles	8,827	32,812	27,470

Animals	2,356	719	677
Goods (in tonnes)	8,404	7,682.5	6,725.50
Estimated cost	-	-	4540751
Maintenance	-	-	4601015
Revenue collected	Rs. 17,60,984	Rs. 22,02,354	Rs. 21,90,625
Estimated cost	-	-	Rs. 45,50,751
Maintenance cost			Rs. 46, 01,015

Source: Karnataka Ports & IWT Dept. Karwar.



Boat House

OCEAN TRANSPORT

There were no ports in the Old Mysore State. Attempts were made to acquire and develop Bhatkal Port when Sir M. Visweshvaraya was the Diwan of Mysore 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 Mangalore. 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. Mangalore (Old Port), New Mangalore 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 on the west coast along with Goa, though it was under the Portuguese.

In 1957, Mysore 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 Mangalore 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, Mangalore old port and Malpe. A sum of Rs. 1,750 lakhs was spent for the development of ports to handle more cargo traffic during VIII Plan period. The government has sanctioned an outlay of Rs 40 crores for 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.



Daily Passengers, Boat Transport

As on March 2004, the state had 10 minor Intermediate Ports viz., Mangalore (old), Malpe, Hangarakatta, Kundapur, Padubidri, Bhatkal, Honnavar, Tadri, Belekeri, Karwar (including Sadashivagad) and one major Port namely New Mangalore 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.

Ports of Karnataka

Karwar Port: Karwar port has been considered as one of the finest natural ports in the world. It was predicted 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 is 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 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 spent for improvement. It has earned a revenue of Rs. 13.38 crores during 2006-07. It handled 2,716 thousands of goods traffic during 2007-08

Belikeri Port: The Port handled exports of about 60,895 metric tonnes of iron/manganese ore, during 92-93. A sum of 90 lakhs was allotted in the Eighth Plan for the development of the port. It is located about 27 km to the South of Karwar. 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 laksh was spent during 2006-07 for its improvement.

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.

Kundapur Port: It is located about 33 km to the north of Udipi, 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.

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 Sharabi 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.

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.

Malpe: The Malpe port is located at the confluence of Udyavara river and lies 64 km to the north of Mangalore and five km to the west of Udupi. About 17,700 tonnes of silica sand exports 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. It handled only 14 thousand tonnes of goods traffic during 2007-08

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.

Old Mangalore port: No major development took place in the development of Mangalore old port during the previous six plans. The old port is located about eight km South of New Mangalore Port 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 92-93, was 58,374 metric tonnes. This port also provided sea transportation 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 Mangalore port. Government of India has accorded sanction for handling petroleum products through Karwar port. Container service has been introduced there to serve Northern Karnataka. The Karwar, Belikeri, Tadri, Malpe, Honnavar, Bhatkal, Hangarakatta and Old Mangalore 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 Mangalore port has earned a revenue of Rs. 1.28 crores during 2006-07. Passengers travelling facility being used by 18233 passenger 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.

New Mangalore Port : The New Mangalore 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 Mangalore 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 up to 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 Mangalore port, and the Karwar, Malpe and old Mangalore ports, the cargo traffic handled at other minor ports during 2007-08 was 6,085 thousand tonnes.

Sea Erosion: Out of the 300 kms of coastal belt, nearly 240.54 kms of it faces severe sea erosion. Besides this, the tidal reaches of as many as 14 rivers like Kali, Aghanastuni, Gangavali, Sharavathi, Kollur, Sita, Guropur, Netravathi, Belekeri etc are also subject to river bank erosion. As a precautionary measure, till March 2007, about 57 kms 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.

POSTAL SERVICES

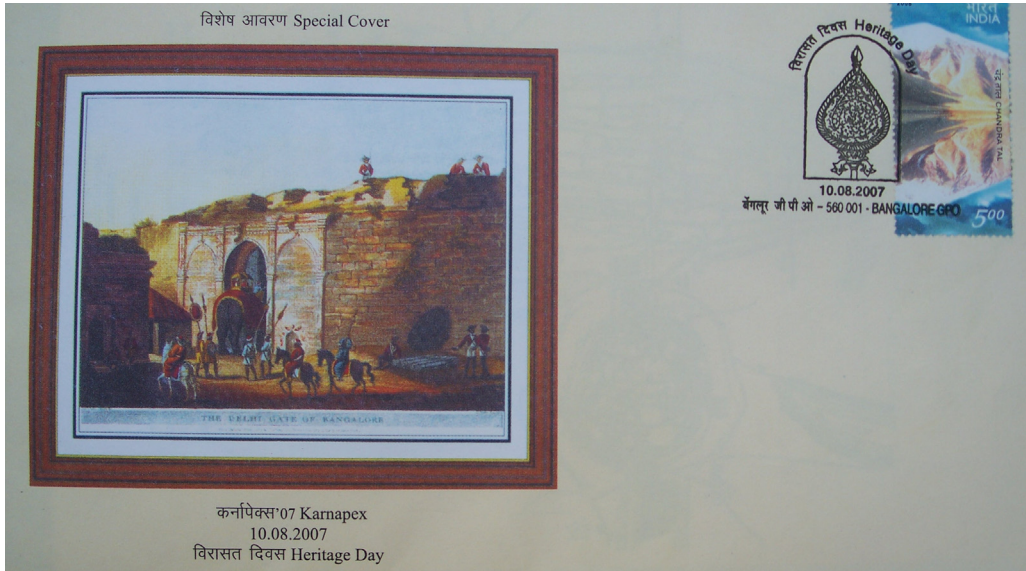
As early as 17th century, old Mysore State had local postal system called 'Anche', the word popularised by prince Chikkadevaraya. 'Anche', being the Kannada form of 'Hamsa', the messenger used by Nala and Damayanti of epic fame. Under Odeyars, it was a part of the intelligence department and was headed by the Anche Bakshi. Imperial Post Offices working under the British at Srirangapatna, Hunsur and Tumkur were included in the Anche Dept. Of

the two imperial postal lines functioning, the Bangalore-Bambay postal route was passing through Chitradurga and Harihara; the other from Bangalore to Mangalore via Mysore and Madikeri. There were Imperial Post Offices at places like Bangalore, Mysore, Harihara and Pandavapura in the princely state of Mysore (French Rocks). The British had opened their post offices at Bangalore Cantonment and Mangalore 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 Hubli in 1833. The number of post offices rose from 180 (1882) to 412 (1886) in the Mysore Kingdom and Quarter Anna post cards were introduced in old Mysore. The Mysore 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 cartline service between Madras and Bangalore. After the completion of Railway line between Bangalore 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 Bangalore 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, Bangalore was a Saddar or Head office and Subordinate offices attached to it were Pandavapura (French Rocks), Hunsur, Harihara, Madikeri, Mysore, Shimoga, Srirangapatna and Tumkur. In 1870, there were receiving houses at Bangalore Cantonment and Bangalore city. Kollegal was transferred from Coimbatore Head office to Bangalore 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 Mysore 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. Bellary 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 the central postal system on 1.4.1950. The Hyderabad Karnataka region was under the Gulbarga postal division from 1959-60.



First Day Postal Cover

The Bijapur and Belgaum districts were under the Southern Maratha postal division in 1884 and the Head offices were functioning at Bijapur, Kaladgi and Belgaum. In Belgaum district 40 post offices and one telegraph office at Belgaum 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 Belgaum, Dharwad, Harihara and Bangalore. 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 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 Mysore State during 1923-24,

With the formation of Karnataka Post and Telegraph Circle on 1.4.1960, Gulbarga Division (Hyderabad circle); Dharwad and Belgaum Divisions (Bombay circle); Bangalore, Mysore, Dakshina Kannada and Bellary Divisions (Madras Circle) were transferred to the Karnataka Postal Circle. One Railway Mail Service (RMS) Division at Bangalore (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 Bangalore and Delhi and later it was extended to the

district headquarters and other centres. Three Speed Post centres were located at Bangalore, Mysore and Mangalore. In Bangalore alone, there were 33 speed post booking centres apart from six in Mangalore and three in Mysore, 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. 12,42,11,984 from speed post service. The corresponding statistics as on 31.3.1992 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 Bangalore, South Karnataka and North Karnataka with their head quarters at Bangalore 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-Offices 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 Offices in the State. But by March 2008, it had come down to 9,826. If Belgaum district with 726 post offices ranked first, Bangalore (Rural) district with 122 post 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 Bangalore (2) Mysore, Davanagere, Hampanakatta (Mangalore), Belgaum and Hubli respectively. Two Philatelic Bureaux in the state are at Bangalore GPO and Mangalore H.O. At present, 15 philatelic counters were working in the State. Since 2000, all H.O.'s have been authorised 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 Mysore is imparting training to the newly recruited postal assistants, sorters, instructors and others. As a result of liberalisation, private agencies like Courier, VRL, Professionals, DTDC, The Franch Express and Eagle Fly Fax are also providing effective postal services with accuracy and punctuality.

Telegraph: Construction of telegraph lines was started around 1853 and by 1856 about 537 km telegraph lines were laid in princely Mysore. Madikeri was an important centre in the coastal telegraphic division of Malabar during 1869-90, as the telegraph line from Mysore to Cannanore passed via Madikeri. There was a branch line to Mangalore in 1865. Mangalore had one central

telegraph office. The two telegraph offices working in the state in 1870-71, were at Mysore and Bangalore. British had also connected their district headquarters like Bangalore cantonment, Bellary, Belgaum 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.

TELECOMMUNICATION

Bangalore 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 Bangalore and Mysore in 1898, temporary telephone lines were installed at Bangalore for anti-plague operations. In 1899, 50 government offices were provided with permanent lines. In 1909, new lines were laid in Mysore city and later connected to Bangalore 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 Mysore State was about 852 km.

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

The Belgaum Exchange started functioning from 1957. Telephone Exchange of Bellary was commissioned in 1940, and had 50 connections at the outset. In 1952, telephone link between Mysore 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 44 connections. The telephone exchanges at Mandya and Chikmagalur, were started in 1955 and 1956.

When Karnataka Postal Circle was formed in 1960, the administration of the Postal and Telecommunication services in the State was with 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 Bangalore city telephones.

A separate circle was formed for Bangalore Telephones in 1964. It was upgraded into major Telephone district on 23-7-1976. The growth of Bangalore Telecom District was spectacular. In 1966, there were only 13,300 telephones

in Bangalore 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. Mangalore 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 Bangalore (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 all the same time there 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 Bangalore (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.

Bharat Sanchar Nigam Ltd., (BSNL): It is providing varied telecommunication services to the whole country. Besides it, Private Agencies are also in the field. Mobile Phone Service has become more common now a 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. Traveling public too were 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 cellphones has brought revolutionary effect in the field of telecommunication, private companies like Airtel, Reliance, Vodaphone, Air-cell, Idea, Tata-indicom have 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 Bangalore in 1963. Later followed the Telex Exchanges at Mysore, Mangalore, Hubli, Belgaum, Davanagere, Bellary 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.

ALL INDIA RADIO

A radio transmission centre called Akashavani was started by Dr. M.V. Gopaldaswamy, a Psychology Professor of Mysore University at Mysore in 1935 through private effort. The station was later taken over by the State Government in January 1941. At a later state it was taken over by the Centre and shifted to Bangalore in November 1955. In the same year, the Bangalore 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 Gulbarga were started in 1965 and 1966 respectively. Another low power transmitter at Mysore was inaugurated on the 14th November 1974. It was upgraded in 1989 as an independent regional station. The Mangalore 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), Hospet(1992), Madikeri and Raichur(1993), Karwar(1994) Bijapur(1997) and Bellary (2003). Consequently, by October 2006, the total number of stations has increased from six to 14. Among them, while Dharwad, Bangalore and Bhadravati AIR stations have 2 x 100 KW transmitters, Gulbarga and Mangalore have 2 x 10 KW transmitters; Chitradurga has 6KW and Hospet has 2.5 KW transmitters; Hassan, Madikeri, Raichur, Karwar and Bijapur have 2x3 KW transmitters, whereas Mysore has only 1 KW transmitter. It is proposed to equip the AIR station at Mysore with 10 KW transmitter to broadcast the routine programmes more effectively. For the purpose of broadcasting Vividh Bharati Programmes separate low powered transmitters have been set up at Bangalore and Dharwad. Both the Stations are attached with regional news units which brings out three regional

Kannada news bulletins daily. The radio stations cover about 96% of the State's population. FM (Frequency Module) stations operating at Bangalore (FM Rainbow and Amrutavarshini serve the listeners of , Mysore, Mangalore, Bijapur 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-Bangalore 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.

TELEVISION

Although, Doordarshan entered India on September 15, 1959 (Delhi) Gulbarga 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 Bijapur districts and Gulbarga were benefited by community viewing. The community viewing T.V. Sets were maintained and serviced by the Doordarshan Kendra, Gulbarga. Bangalore 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 Mangalore, Davangere, Bijapur, Bellary, Gadag, Raichur, Dharwad, Mysore, Belgaum and Hospet. The full-fledged production centre of the Bangalore Doordarshan was started in 1988.

The Doordarshan Kendra, through regional language satellite service started relaying Kannada programmes from 1-3-1990. It was gradually regularised from 1-11-1990. On 12-1-1992, Shimoga 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 Bangalore 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 93-94. 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 LPTs 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, Bangalore 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 far 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 Mysore and Mangalore D.D. Centres from LPT to HPT, but also to install LPTs at Mudhol and Sindhanur. As on Dec 2000, 4 HPTs, 46 LPTs and 3 VLPTs were operating in the state and providing DD1, DD2 and Chandana Channel services to the people of Karnataka.

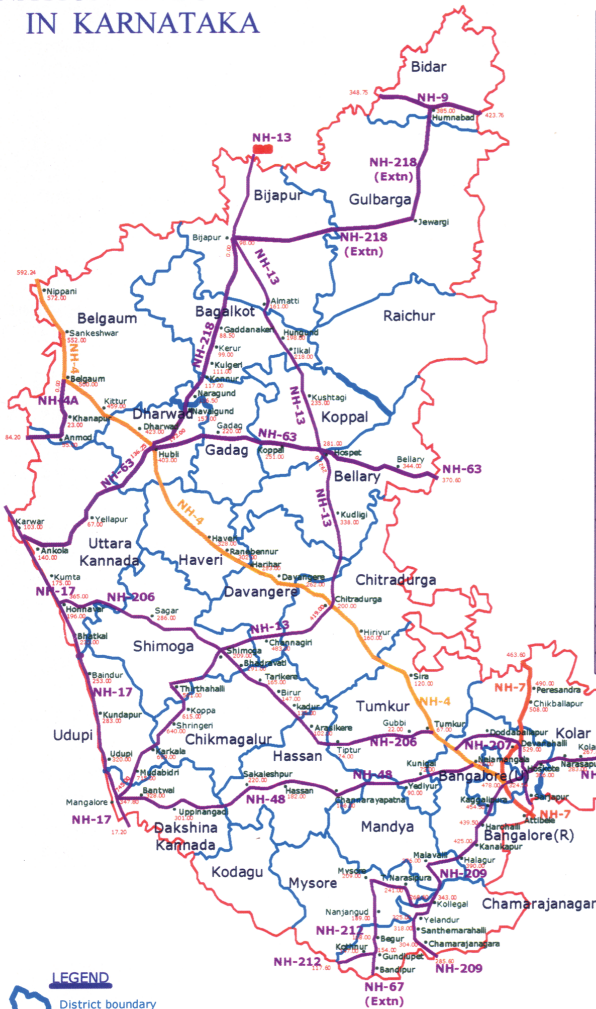


Bangalore Doordarshan Kendra

Besides Doordarshan channels like D.D.1., Chandana, privately initiated satellite channels like Udaya, Udaya 2, Udaya Movies, Udaya News, Ushe, Kaveri, Suprabhata, TV 9/ Amogha, Suvarna, Kasturi, and Eenadu; Tamil Channels like Sun, Raj and Vijaya; Telugu channels like Eenadu, Gemini T.V.; Hindi channels like Zee, Home and Sony; Malayalam channels like Eenadu and Asianet; Other Channels like Star, ESPN, Tensports, BBC, Discovery, National Geographic, FTV, MTV, Channel 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 has 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 Bangalore (1983) and Gulbarga(1994) and maintenance centres at Bangalore, Belgaum, Bijapur, Davanagere, Gulbarga, Hospet, Mangalore and Mysore. As on March 2006, Doordarshan has 2 studios at Bangalore and Gulbarga. 55 (8 HPTs, 47 LPTs) as National Channel Transmitters, 6 (4HPTs 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.

NATIONAL HIGHWAYS IN KARNATAKA



LEGEND

- District boundary
- National Highways (With MORT&H)
- Golden Quadrilateral (With NHAI)
- North-South Corridor (With NHAI)

NH No.	Description	Length Kms in State
4 (MKB)	Madras-Kolar-Bangalore Section	108
4 (B.P)	Bangalore-Poona Section	592
4A	Belgaum-Khanapur-Anmod-Panjim	84
7	Benaras-Nagpur-Hyd'bad-Bangalore-Hosur-krishnagiri-Madurai-Cape Comorin	128
9	Poona-Sholapur-Humnabad Hyderabad-Vijayawada	75
13	Sholapur-Chitradurga-Shimoga Sringeri-Karkala-M'lore	715
17	Panvel-Panjim-Karwar-Udupi Mangalore-Cannanore-Trichur	297
48	Bangalore-Nelamangala-Kunigal Hassan-Mangalore	320
63	Ankola-Hubli-Hospet Bellary-Gooty	369
67 (Extn)	Mettupalyam-Ooty-Gudalur -Junction with NH 212 near Gundlupet	27
206	Tumkur-Shimoga-Honnavar	370
207Hosur	sur (on NH 7) - Sarjapur - Devanahalli-Dobbespet	122
209	Dindigal-Pollachi-Coimbatore-Annur Chamarajanagar-Kollegal-B'lore	203
212	Highway starting from its junction on NH-17 near Kozhikode in Kerala connecting Mysore & Terminating at its junction with NH 209 near Kollegal in Karnataka.	150
218	Bijapur - Hubli Road	193
218 Extn	Bijapur-Jevangi-Humnabad	220
	Total	3973