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## Road transportation and telecommunication in Karnataka

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### Abstract

*Infrastructure is the basic physical and organizational structure needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function. It can be generally defined as the set of interconnected structural elements that provide a framework supporting an entire structure of development. It is an important term for judging a country or region's development. The main aims of this study is to know the transportation and telecommunication development in Karnataka. The data was obtained from the statistical department of Karnataka. To know the spatial disparity of road transportation progress and Telecommunication in Karnataka. Infrastructure development is one of the main key for the region development. Hence, to understand road transportation and telecommunication development study was carried out.*

**Keywords:** Transportation; Telecommunication; BSNL

### Introduction

Infrastructure is the basic physical and organizational structure needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function. It can be generally defined as the set of interconnected structural elements that provide a framework supporting an entire structure of development. It is an important term for judging a country or region's development.

The term typically refers to the technical structures that support a society, such as roads, bridges, tunnels, water supply, sewers, electrical grids, telecommunications, and so forth, and can be defined as "the physical components of interrelated systems providing commodities and services essential to enable, sustain, or

enhance societal living conditions.

Infrastructure facilitates the production of goods and services, and also the distribution of finished products to markets, as well as basic social services such as schools and hospitals; for example, roads enable the transport of raw materials to a factory. In military parlance, the term refers to the buildings and permanent installations necessary for the support, redeployment, and operation of military forces. Research by anthropologists and geographers shows the social importance and multiple ways that infrastructures shape human society and vice versa.

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.

## Study Area

### Objectives

The main aims of this study is to know the transportation and telecommunication development in Karnataka.

### Methodology

The data was obtained from the statistical department of Karnataka To know the spatial disparity of road transportation progress and Telecommunication in Karnataka.

### 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.

**Table 1.** Major Road network in Karnataka 2011.

Sl. No	District Name	National Highway	State Highway	Major District roads
1.	Bangalore	147	91.3	682.1
2.	Bangalore Rural	205	194.29	656.05
3.	Ramana-gara	73	315.5	1555.4
4.	Chi-tradurga	167	613.2	2109.4
5.	Davanagere	85	732.9	1608.8
6.	Kolar	137.4	306.9	1082.4
7.	Chikkabal-lapura	148	263.8	928.04
8.	Shimoga	221	990.1	1986.6
9.	Tumkur	325.9	632.2	3752.9
10.	Chikma-galur	142	610.2	1644.02
11.	Dakshina Kannada	252.1	528.8	775.85
12.	Udupi	-	353.7	790.9
13.	Hassan	73	985.2	3071.35
14.	Kodagu	79	537.9	852.7
15.	Mandya	190	466.8	2966.7
16.	Mysore	2687.7	716.9	2518.55
17.	Chamara-janagar	201	339.3	995.2
	<b>South Karnataka</b>	<b>2687.7</b>	<b>8679.4</b>	<b>27976.55</b>
18.	Belgaum	201	2341.7	3040.6
19.	Bijapur	267	685.3	2440.9
20.	Bagalkot	126	875.5	1608.3
21.	Dharwad	189	484.4	1389.5
22.	Gadag	74	709.5	1187.8
23.	Haveri	103	587.2	1843.7
24.	Uttar Kannada	331	1245.4	2044.5
25.	Bellary	181	1017.3	1862.8
26.	Bidar	82	693.1	877.1
27.	Gulbarga	125	1251.8	1400.9
28.	Yadgiri	-	486.05	1275.8
29.	Raichur	-	1003.92	1506.6
30.	Koppal	124	709.02	1503.6
	<b>North Karnataka</b>	<b>1803</b>	<b>12090.33</b>	<b>21982.38</b>
	<b>Total</b>	<b>4490.7</b>	<b>20769.7</b>	<b>49958.9</b>

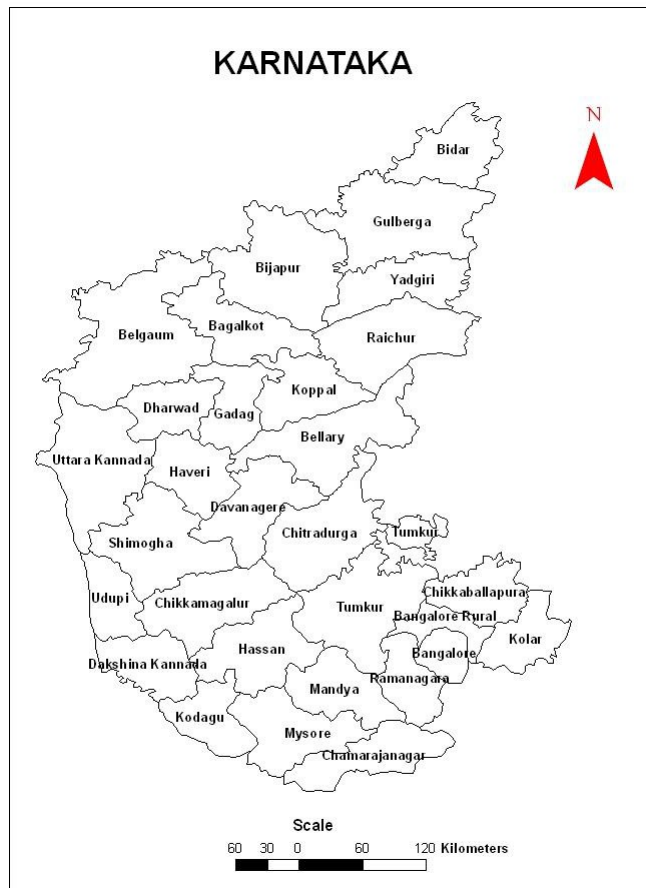


Fig. 1. Study Area

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 Bathery, Gundlupet, Nanjangud, Mysore, T.Narasipur, Mugur, Uttamballi, and the road between Bangalore-Dindigal via Kanakapura, Halagur, Malavalli, Sattagal, Kollegal, Yelandur, Santhamarahalli 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.

### 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.

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. Chamaraajanagar with 17, 389 telephones ranked last.

**Table 2.** District wise No of Post office, telephone exchanges, BSNL telephones. 2011.

Sl No	District Name	Post Office	Telephone exchanges	BSNL telephones
1.	Bangalore	251	183	872095
2.	Bangalore Rural	180	103	57541
3.	Ramanagara	181	12	2584
4.	Chitradurga	320	82	25983
5.	Davanagere	259	49	27657
6.	Kolar	274	73	40235
7.	Chikkabal-lapura	147	71	16268
8.	Shimoga	357	140	55715
9.	Tumkur	566	112	39420
10.	Chikma-galur	305	148	42336
11.	Dakshina Kannada	549	147	131441
12.	Udupi	268	103	71310
13.	Hassan	421	104	38958
14.	Kodagu	216	76	36069
15.	Mandya	364	64	17314
16.	Mysore	282	100	75004
17.	Chamara-janagar	324	41	11574
	<b>South Karnataka</b>	<b>5264</b>	<b>1608</b>	<b>1561504</b>
18.	Belgaum	727	189	99921
19.	Bijapur	419	192	25389
20.	Bagalkot	330	81	23280
21.	Dharwad	217	53	62437
22.	Gadag	171	63	20755
23.	Haveri	258	55	17040
24.	Uttar Kannada	496	152	74094
25.	Bellary	454	116	38032
26.	Bidar	305	81	22389
27.	Gulbarga	421	148	46499
28.	Yadgiri	202	12	3028
29.	Raichur	290	72	23517
30.	Koppal	218	63	17258
	<b>North Karnataka</b>	<b>4508</b>	<b>1277</b>	<b>473639</b>
	<b>Total</b>	<b>9772</b>	<b>2885</b>	<b>2035143</b>

This is due to mobile phones gaining more popularity.

## Conclusion

Infrastructure refers to services drawn from the set of public works that traditionally has been supported by the public sector, though in many cases, the infrastructure services may be produced in the private sector. Water supply, sanitation, transportation, electricity, telecommunications, irrigation dams, regulated markets and banks are some of the examples of infrastructure that generate services. The agricultural infrastructure includes all of the basic services, facilities, equipment, and institutions needed for the economic growth and efficient functioning of the food and fiber markets. Infrastructure investment demands a strong commitment to the research and cooperative extension system that enhances production, marketing, food safety, nutrition, natural resource conservation, and all other functions of different agencies concerned with agricultural infrastructure.

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