



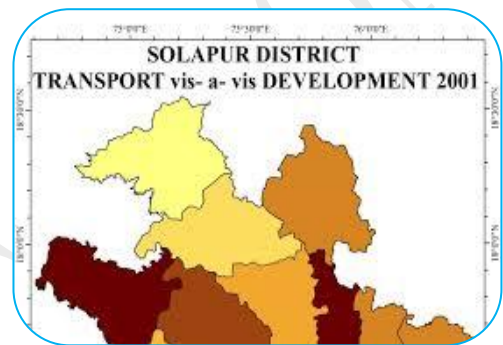
A STUDY OF TRANSPORTATION FACILITIES IN SOLAPUR DISTRICT: A GEOGRAPHICAL ANALYSIS

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ABSTRACT:

The geographic space consists of points and a variety of human activities centre around such locations. There has been a permanent need for interaction between one point to another. The cost of the interaction is largely based upon the distance between the two points or successive points. The essential impact of a route is that the accessibility of those places located on that route increases in contrast to these not located in that route. Transportation plays an important role in the development of modern agriculture. Transport facilities are the link between the producer and consumer. "In the process of agriculture development the transport facilities are essential for supply of certain imputes to the products to the markets and consuming area. A good network of transport can encourage the development of Dairy, Fruit and Vegetable crops." So the transport network is important in any regional development.



KEYWORDS: Road density, Accessibility, Road Network.

1. INTRODUCTION:

The accessibility is considered as the lifeline of the economy in a particular region. The transportation facilities play a role like veins in a human body. As the blood is circulated to the heart and brain by the veins, the goods and commodities including the accessibility of the people is done through the means of transportation facilities in different parts of a geographical region. Among the various means of transportation facilities, the road network plays a vital role, since, it provides door to door service. While other

means of transportation such as railway and airways do not serve this purpose. It is, therefore, most important to take an appraisal of roadways network in the region under study. It is the road network, responsible for the overall social and economic development in a particular region. At the very outset, it may be stated that higher the density of road network the better the developed socially and economically is the region.

2. STUDY AREA:-

Solapur district is one of the important districts in Maharashtra. It lies entirely in the Bhima-Sina-Man basins. The

district of Solapur is located between 17°10' North and 18°32' North latitudes and 74°42' East and 76°15' East longitudes. The East-West Length of the district is about 200 kilometer and North-South width is about 150 kilometer. The total Geographical area of the Solapur district is about 14895 square kilometer and population of 43,17,756 according to 2011 census. Within the region under study, Karmala is the largest tahsil in area and the lowest is North Solapur tahsil in the Solapur district.

Solapur district plays significant role in the fields of agriculture, economics, industrial and social fields. The present paper deals

with the decadal variation of urban population as well as spatial distribution of urban population in the Solapur district.

3. OBJECTIVES:-

The important objectives of the present paper are as follows

- 1) To study the growth of road length and road density in the Solapur district.
- 2) To study the road transportation system in the study region.
- 3) To study the spatial distribution of road network in the Solapur district.

4. DATABASE AND METHODOLOGY:-

The present paper depends on the secondary data. It has been collected through District Census Handbook, Social Economic Review and other materials used. The study has been concentrated in the growth of road length and road density, transportation system in the study region as well as tahsil wise distribution of road network in the Solapur district.

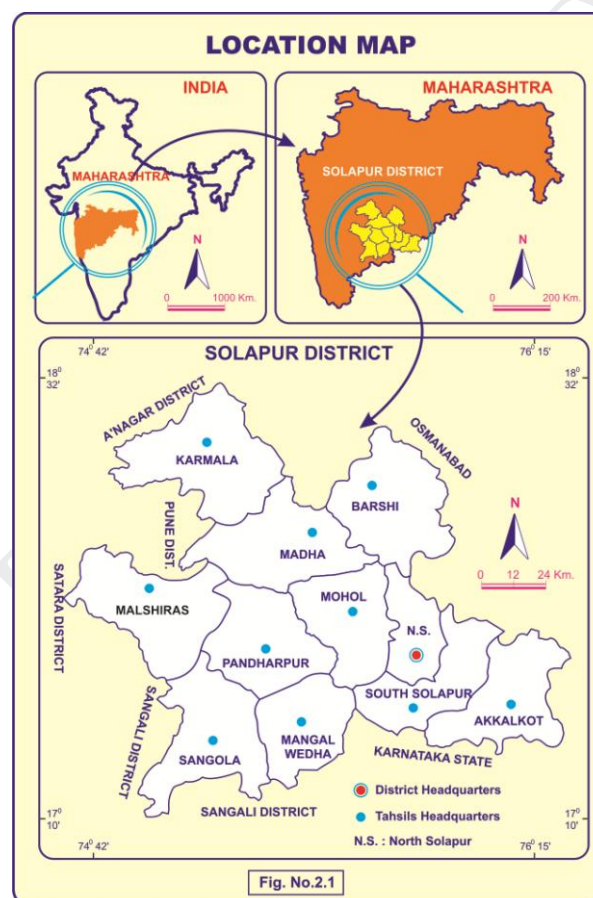


Fig. No. 1

5. Growth of Road Length and Road Density in Solapur District:-

The transport facilities shows development index in a particular region. India is a predominantly rural country, where more than two third populations live in the rural area. In order to understand precisely, the level of development in rural areas of the Solapur district. The table no. -1 shows decade wise road length in Solapur district as well as decade wise road density in per 100 sq. km. in the study region. In the Solapur district total road length is 1122 km according to 1961, while same decade road density in per 100 sq. km. is 7.45. The next decade 1971 road length increased to 2901 km and road

density in per 100 sq. km. was 19.31. In the years 1981, the road length also increased to 9483 km and road density increased 63.15. In the year 1981, both road length and road density surprisingly, increased complex to previous decades. Various government policies and other efforts are responsible for the network and road length also increased.

**Table No. -1
Growth of Road Length and Road Density in Solapur District**

Year	Total Road Length in Kilometers	Road Density in Per 100 Sq. Km.
1961	1122	7.45
1971	2901	19.31
1981	9483	63.15
1991	10592	71.11
2001	12542	84.20
2011	14914	99.29

Source: Socio-Economic Abstract of Solapur District, 2013

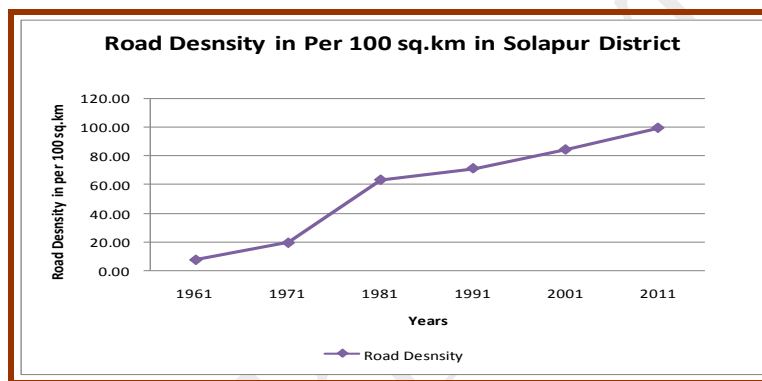


Fig No.2

In the year 1991, road length increased slowly up to 10592 km, while road density per 100 sq.km 71.11 km. The next decade of 2001, Solapur district recorded road length of 12542 km, while road density was 84.2 km. Finally, in the present decade of 2011, the road length was 14914 km and road density 99.29 km per 100 sq.km. It is concluded that the road length and road density in Solapur district increased decade wise, because of various positive government effort as well as government policies.

6. Road Transport System in Solapur District:-

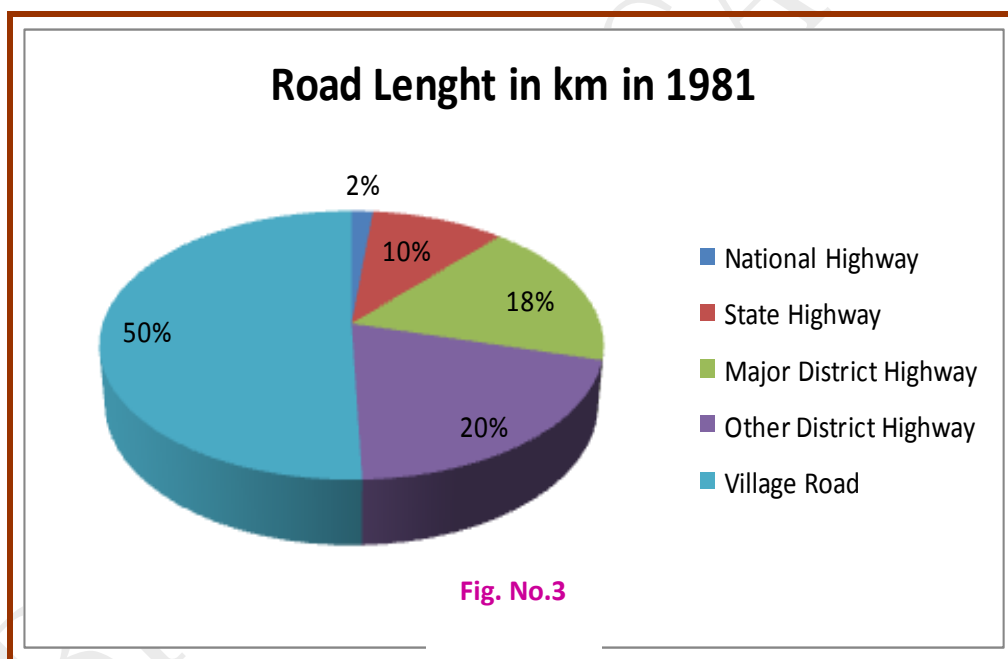
For the study of the road transport system in Solapur district the data from 1981 to 2011 taken in to the consideration. The changes during the 1981 to 2011 in percentage also calculated and interpreted. It has been found that the highest changes in the other district highways, while the lowest changes found in the category of the national highways. The village road also was that the lowest changes during the period 1981 to 2011. The district total changes are observed by 66.36 percent. The following table no. 2 gives the transportation system during the period of 1981 and 2011 in Solapur district.

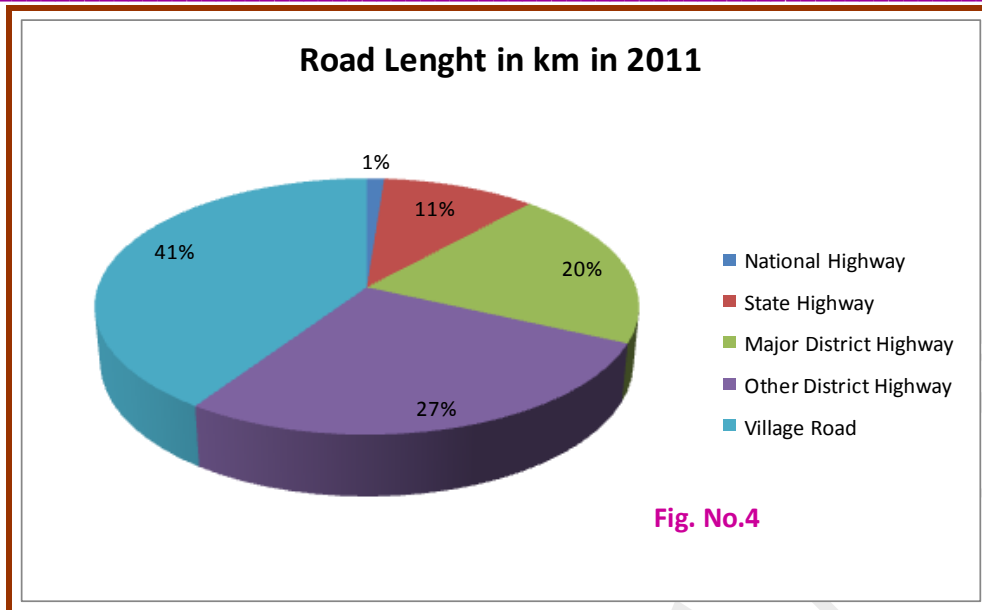
Table No -2
Road Transport System in Solapur District

Sr. No.	Road Type	Road Length				Changes During the period of 1981 to 2011 in %
		1981		2011		
		Actual	In %	Actual	In %	
1	National Highway	144	1.61	177	1.19	22.92
2	State Highway	895	9.98	1572	10.54	75.64
3	Major District Highway	1590	17.74	3011	20.19	89.37
4	Other District Highway	1802	20.10	4101	27.50	127.58
5	Village Road	4534	50.57	6053	40.59	33.50
	District Total	8965	100	14914	100	66.36

Source: Socio-Economic Abstract of Solapur District, 2013

The total road length in the year 1981 was 8965 km in which highest length was in village roads that is 4534 km, while lowest road has been seen in National highway that is only 144 km. The data shows that the total road length in the year 2011 was 4914 km. Out of the total road length





Of 177 km is National Highway, in North Solapur and Madha tahsils. In the rest tahsils there is no National Highway. The share of State Highway in study region, is 1572 km, while major district highway is 3011 km in the year 2011. In Solapur district, the Other District Highway is 4101 km, while village road is 60253 km in the year 2011. It is concluded that in Solapur district all types of road are found, while share of village road is higher as compared to other types of roads.

The highest change during the period 1981 - 2011 has been seen in the district road, while lowest change has been seen in the national highway. It is needed to develop the national highway for the overall development of the study region.

7. Tahsil wise Road Length in Solapur District:-

Another factor important to study is the road length of Solapur district. This study mainly concentrates on tahsil level road length in Solapur district. Tabel No. 3 showing the tahsil wise road length in Solapur district. According to 2011, the total road length in Solapur district is 14914 km, while road length per 100 sq.km is 99.29 sq.km. The highest road length is seen in North Solapur that is 1954 km, while share in percentage showing 13.10 percentage road in compare to Solapur district. The lowest road length observed in South Solapur, which is 1011 km and share in percentage was 6.77 percent. In the tahsil Barshi and Sangola road length was 1522 and 1553 km respectively in each tahsil. Other tahsil like Madha and Malshiras represented 1413 and 1450 km road length in each tahsil respectively. Mohol road length is 1007 km, Pandharpur road length is 1286 km, Mangalvedha tahsil road is 1125 km, and Akkalkot tahsil road length is 1281km. When, a road length is considered in percentage it is more than ten percent for Barshi, North Solapur and Sangola tahsils.

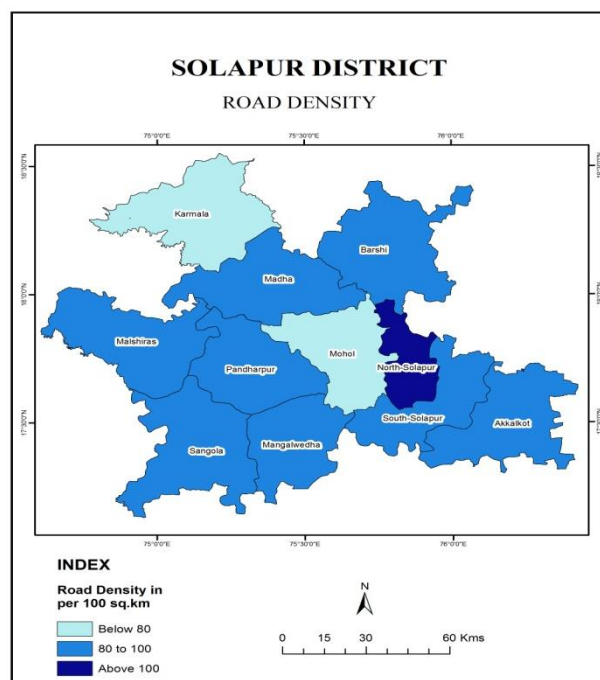
Table No. - 3
Tahsil wise Road Length in Solapur District 2011

Sr. No	Name of Tahsil	Road Length in Km	Road Share in Percentage	Road Density in Per 100 sq.km
1.	Karmala	1307	8.76	76.68
2.	Madha	1413	9.47	90.83
3.	Barshi	1522	10.20	99.88
4.	North Solapur	1954	13.10	267.59
5.	Mohol	1007	6.75	72.56
6.	Pandharapur	1286	8.62	97.94
7.	Malshiras	1450	9.72	95.33
8.	Sangola	1553	10.41	96.46
9.	Mangalvedha	1125	7.547	98.11
10.	South Solapur	1011	6.77	88.28
11.	Akkalkot	1281	8.58	90.13
	District Total	14914	100	99.29

Source: Socio-Economic Abstract of Solapur District, 2013

In the year 2011, road density per 100 sq.km is analyzed. The highest road density is seen in North Solapur, which is 267 sq.km. Because of administrative centre, road density is high. The lowest road density is observed in Mohol tahsil, which is 72.56 sq.km. Mohol is dominantly rural area, so road density is very low observed. The detailed tahsil wise road length in Solapur district has been shown in table no. 3 as follows for the year 2011.

In the year 2011, Barshi tahsil ranks second in road density that is 99.88 km. In Mangalvedha tahsil road density was 98.11 km, while for Sangola tahsil 96.46 km road densities have been seen. In the tahsils of Malshiras and Madha road density represented 95.33 km and 90.83 km respectively in each tahsil. In the tahsil Karmala road density is 76.68 km and another tahsil South Solapur road density is 88.28 km. The low road density has been seen in other tahsil, because of poor infrastructure facility as well as rural area. In all these information, it is concluded that the regional variation is seen in the road density in Solapur district.



CONCLUSION:

The transportation network is directly connected with the exploitation of the natural, economic and human resources. The village roads are forty percent of the total length of the district. It is followed by the district road which is slightly less than one fourth of the total lengths of the district. It is further followed by major district roads in order of significance, which is one sixth of the total length of the district. The state high way occupies less than 10 percent of the total length of the district. While major state highways, have little more than two percent of the total length of the district, while national highway have little more than one percent length of the district.

In the transportation facility, the share of national highway is very low to other category, because of slow development of infrastructural and financial problems. The highest shares have been shown in village roads and it is indicated that the dominance of rural society. But the qualities of village roads are very poor. The highest road density per 100 sq. km has been seen in North Solapur tahsil, because of administrative center and well developed infrastructure. While other tahsil such as Mohol observed low road density per sq. km, because of rural dominance and lack of infrastructure facility. The communication facility like post, is better position in the North Solapur, Pandharpur, because urbanized area, North Solapur is administrative center and Pandharpur is pilgrim center. On the other hand like South Solapur the lowest post office facility has been seen, because of dominance of rural area.

The transportation facility also needs a government help to improve their quality and length. The national highway is very less as compared to other types of roads in the study area. It is necessary to increase the length of the national highway in Solapur district.

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