

ROLE OF TRANSPORT SYSTEM ON ECONOMIC DEVELOPMENT IN SANGLI DISTRICT (MAHARASHTRA)

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Abstract:

The transport system is important for the development of a particular region. Transport facilities play the role of nerves of the human body for that region, thus helping in the social and economic development of region. Transport network is important for the Socio-economic and Political development of the society or human community of region. The lives of the people of that region are made easier through transport and communication. Transport is important for the promotion of raw materials produced, trade, markets and industries. The present research paper will focus on the impact of transport facilities on the economic development of Sangli district. According to the Sangli District socio-economic Review 2024 analysis roads are an important link for the development of the region. The objective of this study is to analyse the effects of transport facilities on the economic development and traffic density of the region.

Key Words: *Transport Network, Development, Road Network, Density.*

Introduction:

Transport systems are important for the overall development of a region. Transport system plays an important role in the economic development of the country. If the transport system is developed, then the economic, social, market, trade, educational and other facilities of that region develop. In Sangli district, road transport has become more efficient than the railway transport system in the transport system. Transport facilities are playing an important role in the economic development of the study area. For this, it is important to study this region from a geographical, social, economic and industrial point of view. For this, the study of various means of transport in this region is important. In this research paper, an attempt has been made to examine the role of transport network and their density on the economic development of the study area.

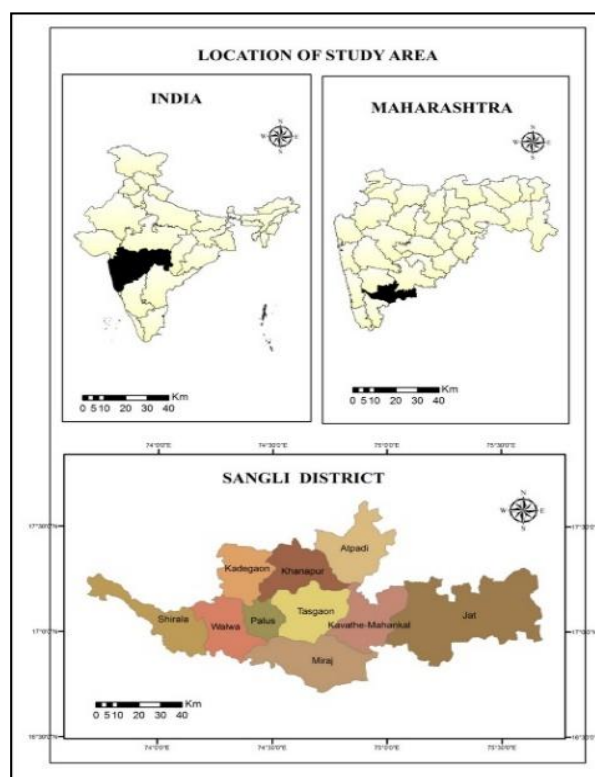
Objectives:

1. To Study the transport network & its density of the Sangli District.
2. To study the tehsil-wise transport system in study region and its impact on economic development.

Study Area:

Sangli district is part of the southern districts of Maharashtra and is part of the Deccan plateau. The Sangli district is located between 16° 45' and 17° 33' N latitudes longitudes and 73° 42' and 75° 40' longitudes. The average altitude of the district is 553 meter above mean

sea level. It is surrounded by Satara and Solapur district to the North, Karnataka State to the East and South, Kolhapur district to the South –West and it has a small boundary with Ratnagiri district in the west. Sangli district has 205 km length in East to West and 96 km width North-South direction. The total area of the Sangli district is 8572 sq. km. and its total population is 28, 22,143 according to 2011 census where 1,435,728 Male and 1,386,415 female population was observed. The total literacy rate of Sangli district is 82.62 Percent and the population density is 329 per sq. km. There are 735 villages and 07 urban towns' locations in Sangli District. For the administrative purpose Sangli district divided in to three sub-divisions mainly Walwa, Miraj, and Khanapur and the district has ten tehsils such as Walwa, Shirala, Miraj, Jath, Atpadi, Khanapur, Palus, Kavathe-Mahankal, Tasgaon, and Kadegaon.



Map No 01

Data Collection and Methodology:

The present research paper has depend on Secondary Data, the data has been collected from the District Gazetteers, Socio-Economic Review and statistical Abstract of Sangli District 2024, reference book and Articles etc. The collected data has been processed and interpreted.

Result and Discussion:

The transport system of any region is important in the economic and social development of that region, the geographical conditions of that region affect the transport system of the region. The transport network of that region is important for improving the living standards of the people in rural or urban areas. Due to good transport facilities, there is

progress in trade, market, and industries in any region, due to which the people there develop. In terms of Sangli district, there are good roads in ten tehsils and those roads are connected to the rural areas. The total length of roads in Sangli district is 11993 Km and the density of roads per 100 square Km is 139.55 Km.

Table No. 1
Sangli District
Spatial Pattern of Road Length (2024)

Tehsil	Road Length in Km.						
	National Highway	Major State Highway	State Highway	Major District Road	Other District Road	Village Road	Total Road Length
Shirala	0	0	121	158	171	434	884
Walwa	30	0	99	388	71	729	1317
Palus	0	0	88	157	68	232	545
Kadegaon	0	0	66	347	02	685	1100
Khanapur	0	0	24	346	90	518	978
Atpadi	0	0	73	185	257	467	982
Tasgaon	0	0	68	463	65	740	1336
Miraj	0	0	163	470	161	984	1778
K. Mahankal	0	0	29	214	325	523	1091
Jath	0	0	187	328	280	887	1982
Total	30	0	928	3356	1490	6189	11993

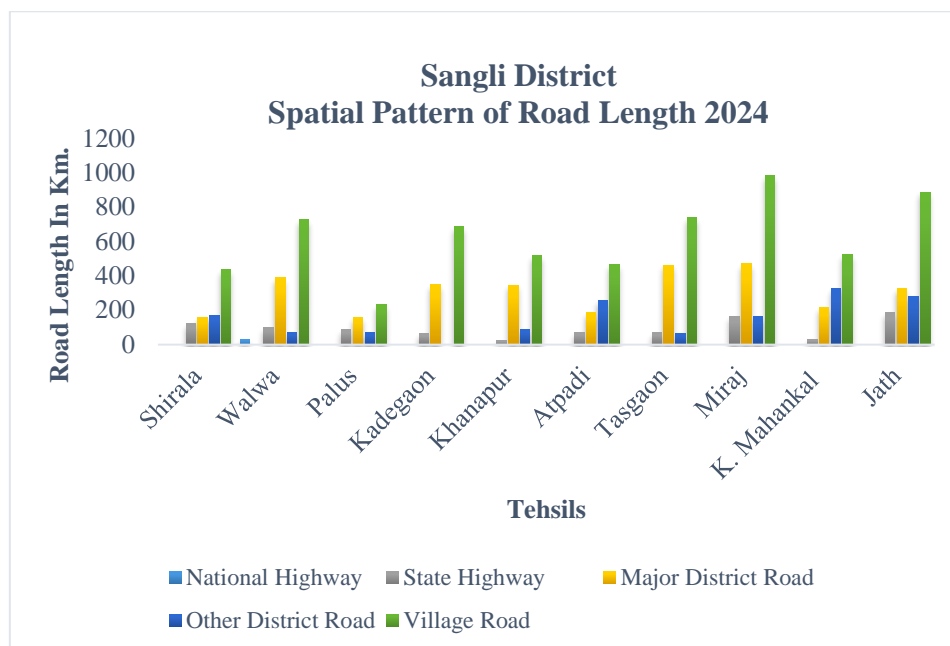
Source: Sangli District Socio-Economic Review, 2024

National Highway:

National Highways are an important system that mainly connects major cities, ports and state capitals. The Pune-Bengaluru National Highway (NH-4) passes through Sangli district. The total distance of nearby 30 km through Walwa tehsil of Sangli district

State Highway:

State Highway are all other major roads in the state that connected to the national highway or other state highways, district headquarters and importance commercial cities. In Sangli District total distance of State Highway is 928 Km. in 2024, and density of the State Highway per 100 Sq/Km is 10.82 Km. The High Density (Above 15 Km. per 100 Sq. Km.) of state Highway of observed in Shirala (19.36 Km.), Palus (29.62 Km.) and Miraj (17.75 Km.) tehsils. The Moderate Density (10-15 Km. per 100 Sq. Km) of state Highway of recorded in Walwa (12.75 Km.) and Kadegaon (11.47 Km.) tehsils and Low Density (10-15 Km. per 100 Sq. Km) of state Highway of recorded in Atpadi (8.45 Km.), Tasgaon (8.30 Km.), Jath (8.35 Km.), Kavathe-Mahankal (3.99 Km.) and Khanapur (3.28 Km.) tehsils.

**Fig. No. 1****Major District Road:**

Major district roads are important roads a district that connect market centres with railways and highways. The total length of major district roads are 3356 Km. in the year 2024 and the density of major district roads in sangli district is 39.15 Km. per 100 Sq. Km. The High density (Above 50 Km. per Sq. Km.) recorded in Kadegaon (60.35 Km.), Tasgaon (56.53 Km.), Palus (52.86 Km.), Walwa (50.00 Km.) and Miraj (51.20 Km.) tehsils. The Moderate density (25 Km. to 50 Km. per Sq. Km.) founded in Khanapur (47.33 Km.), Kavathe-Mahankal (29.43 Km.), Jath (28.04 Km.), Shirala (25.28 Km.) tehsils, and the low density (Below 25 Km. per Sq. Km.) recorded in only Atpadi tehsil its 21.43 Km.

Other District Roads:

Other district roads are also of the same category as major district roads, except that they are more frequently interrupted for traffic during heavy rains. The total length of other district roads is 1490 Km. in the year 2024 and density of 100 per sq. Km are 17.38 Km. The High Density (Above 30 Km.) of other district roads observed in Kavathe-Mahankal tehsil (44.70 Km. per 100 Sq. Km.). The Moderate density (15 Km. to 30 Km. per 100 Sq. Km.) of other district roads found in Shirala (27.36 Km.), Palus (22.89 Km.), Atpadi (29.77 Km.) and Miraj (17.53 Km.) tehsils. The Low density (Below 15 Km. per 100 Sq. Km.) of other district roads found in Walwa (9.15 Km.), Khanapur (12.31 Km.), Tasgaon (7.93 Km.), Jath (12.50 Km.) and Kadegaon (0.34 Km.) tehsils.

Table No. 2
Sangli District
Spatial Pattern of Road Length (Density 100 sq. km.) 2024

Tehsil	Density 100 sq. km.							
	Total Geographical Area in Sq. km.	National Highway	Major State Highway	State Highway	Major District Road	Other District Road	Village Road	Total Road Length
Shirala	625.67	0	0	19.36	25.28	27.36	69.44	141.44
Walwa	776.07	3.86	0	12.75	50.00	9.15	93.94	165.85
Palus	297.34	0	0	29.62	52.86	22.89	78.11	183.50
Kadegaon	575.68	0	0	11.47	60.35	0.34	119.13	191.30
Khanapur	731.69	0	0	3.28	47.33	12.31	70.86	133.79
Atpadi	863.56	0	0	8.45	21.43	29.77	54.11	113.79
Tasgaon	819.74	0	0	8.30	56.53	7.93	90.35	163.12
Miraj	918.19	0	0	17.75	51.20	17.53	107.19	193.68
K. Mahankal	724.29	0	0	3.99	29.43	44.70	70.56	150.06
Jath	2239.77	0	0	8.35	28.04	12.50	39.61	88.52
Total	8572	0.34	0	10.82	39.15	17.38	72.20	139.55

Source: Compiled by Researcher

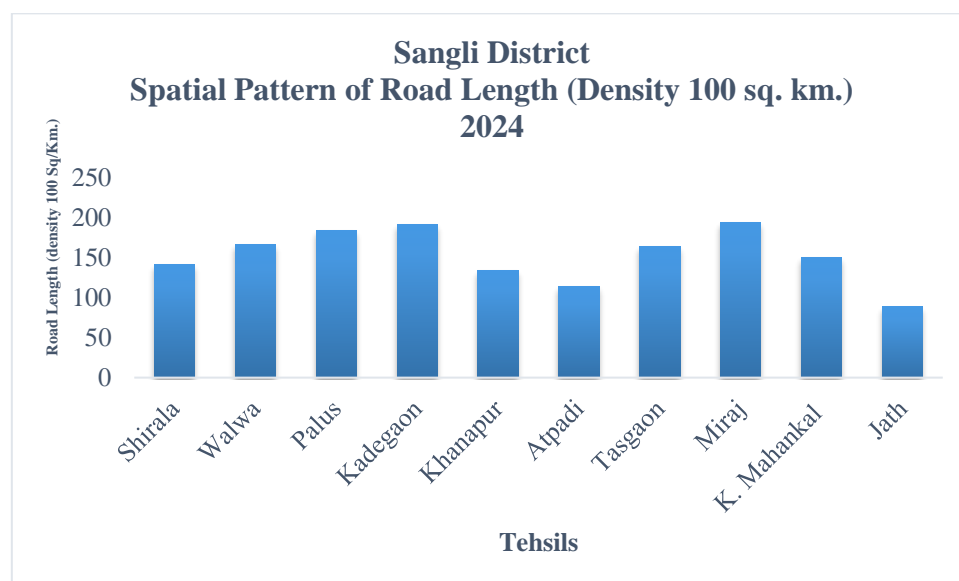


Fig. No. 2

Village Roads:

Village roads are used for local transport of goods as well as the marketing purpose. In the year 2024, Sangli district total length of village roads is 6189 Km. and the density of village road has 72.20 Km. per 100 Sq. Km. the high density (100 Km. per 100 Sq. Km.) of village roads is recorded in Kadegaon (119.13 Km.) and Miraj (107.19 Km.) tehsils. The Moderate density (50 Km. to 100 Km. per 100 Sq. Km.) of village roads is recorded in Shirala (69.44 Km.), Walwa (93.94 Km.), Palus (78.11 Km.), Khanapur (70.86 Km.), Atpadi (54.11 Km.), Tasgaon (90.35 Km.) and Kavathe-Mahankal (70.56 Km.) tehsils and the low density (Below 50 Km. per 100 Sq. Km.) of village roads is recorded in Jath tehsil (39.61 Km.).

Total Road Length:

The total length of all roads in Sangli district is 11993 Km. and overall density are 139.55 Km per 100 Sq. Km. The high density (Above 150 Km. per 100 Sq. Km.) of total length of roads is found in Walwa (165.85 Km.), Palus (183.50Km.), Kadegaon (191.30 Km.), Tasgaon (163.12 Km.), Miraj (193.68 Km.) and Kavathe- Mahankal (150.06 Km.) and The low density (Below 150 Km. per 100 Sq. Km.) of total length of roads is found in Shirala (141.44 Km.), Khanapur (133.79 Km.), Atpadi (113.79 Km.) and Jath (88.52 Km.) tehsils.

Table No. 3**Sangli District****Spatial Pattern of Road Length (Density 1000 Population) 2024**

Tehsils	Density 1000 Population							
	Population	National Highway	Major State Highway	State Highway	Major District Road	Other District Road	Village Road	Total Road Length
Shirala	162911	0	0	0.74	0.97	1.05	2.66	5.43
Walwa	456002	0.06	0	0.21	0.85	0.15	1.59	2.82
Palus	164909	0	0	0.53	0.95	0.41	1.40	3.30
Kadegaon	143019	0	0	0.46	2.43	0.01	4.79	7.69
Khanapur	170214	0	0	0.14	2.03	0.52	3.04	5.74
Atpadi	138455	0	0	0.52	1.33	1.85	3.37	7.09
Tasgaon	251401	0	0	0.27	1.84	0.25	2.94	5.31
Miraj	854581	0	0	0.19	0.54	0.18	1.15	2.08
K-Mahankal	152327	0	0	0.19	1.40	2.13	3.36	7.16
Jath	328324	0	0	0.56	1.91	0.85	2.70	6.03
Total	2822143	0.01	0	0.33	1.19	0.52	2.19	4.23

Source: Compiled by Researcher

Conclusion:

The villages in ten tehsils of Sangli district are well connected to each other by roads. In general, roads act as a medium for the development of a region. In 2024, the road length in Sangli district was recorded as 11993 Km. Out of this, Jath, Miraj, Tasgaon and Walwa

tehsils have the highest road length. The road density per 100 Km. is higher in Miraj, Kadegaon, Palus, Tasgaon and Walwa tehsils due to these tehsils are more economically developed. The concentration of industries has occurred in these places. The low road density is in Jath, Atpadi, Kavathe-Mahankal, Khanapur tehsils because these tehsils are economically developed to a lesser extent. Due to low rainfall, agriculture and industries are less. The total road density per 100 Km. in Sangli district is 139.55 Km. In terms of population, the total road length of 4.23 Km. in Sangli district is behind the density of 1000 population. If the overall road is developed and modernized, the development of rural areas can be achieved to a large extent and the villages can also become economically viable

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