



Infrastructure Development in Satara District: A Geographical Review

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Abstract:

Infrastructure refers to the facilities, activities, and services which support the operation and overall all development in the area. There is a direct link between infrastructure, agriculture and economic development of a country. In this paper an attempt has been made to study the infrastructure development in Satara district. The present study is based on secondary data. For this study tehsil wise data has been collected. This data has been collected from Socio-economic abstract of Satara district. To examine the infrastructure development in the study region M. G. Kendall (1939) ranking coefficient method has been applied. There are three tehsils namely Satara, Karad and Mahabaleshwar belong to the highly developed category of the development. Man, Khatav and Jaoli tehsils incorporate in low development category.

Introduction:-

Infrastructure refers to the facilities, activities, and services which support the operation and overall all development in the area. There is a direct link between infrastructure, agriculture and economic development of a country. The concept of infrastructure is essentially a flow of service out of a certain stock of infrastructure facilities created over a length of time (Ghosh and De, 1998: 3039). Infrastructure is a compound of two words: infra and structure. Infrastructure is a substructure of the superstructure. The availability of infrastructure services is pre-condition to rapid growth in every country.

The infrastructure is essential for the overall development of a particular area. The variation in infrastructure development, effects on overall imbalances in the development of economy resulting in inter-tehsil, inter-district, and inter-state disparities.

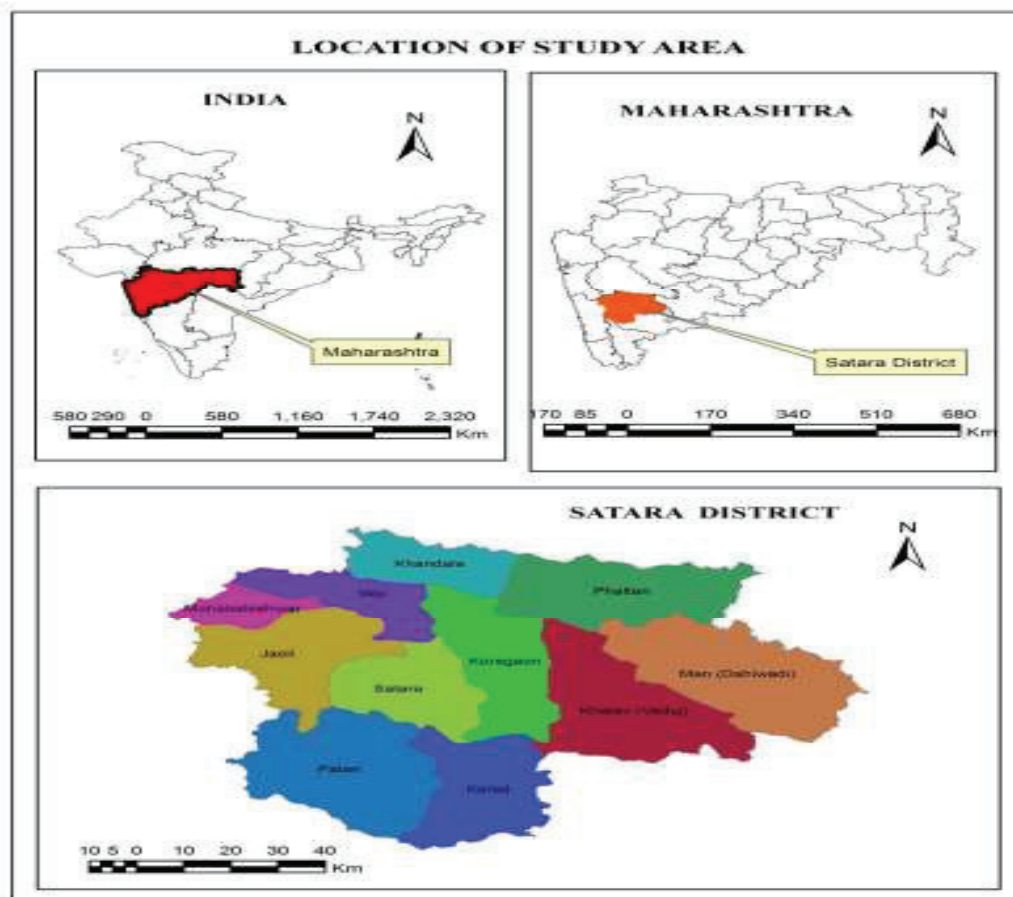
In this paper an attempt has been made to study the infrastructure development in Satara district. There is variation in a physical condition which affects the infrastructure development in the study area.

Study Area

Satara district located at southern part of Maharashtra and western limit of the Deccan plateau. The latitudinal and longitudinal extent of Satara district is 17° 5' to 18° 11' North and 73° 33' to 74° 54' East

(Map No.-1). Satara district is surrounded by Pune in North, Solapur in the east, Sangli to the south and Ratnagiri to the west.

Satara district consists of eleven tehsils namely; Mahabaleshwar, Wai, Khandala, Phaltan, Koregaon, Khatav, Man, Satara, Jaoli, Patan, and Karad. The district has 10480 Sq. km. area; it covers 3.40 Percent area of the state. It has 15th rank in term of the area in Maharashtra. It has a very compact shape. The average south-north distance is 120 km and east-west is about 144 km. According to 2011 census, there are 1719 inhabited villages in the district.



Map No. 1 Location Map of Study Area

Database and Methodology

The present study is based on secondary data. For this study tehsil, wise data has been collected. This data has been collected from Socio-economic abstract of Satara district, District statistical handbook etc.



To study the infrastructure development of Satara district, tehsil wise data of different variables have been collected. The collected data have been tabulated in proper format and apply suitable statistical methods for obtaining good results.

M. G. Kendall’s Ranking Coefficient Method

To examine the infrastructure development in the study region M. G. Kendall (1939) ranking coefficient method has been applied. In this method, rank has been given according to individual indicator value in tehsil. The average rank of all indicators in tehsil is called the ranking coefficient index. The low ranking coefficient indexes indicate high development in the region whereas the high ranking coefficient index reflects low development.

The formula for ranking coefficient index is as follows:

$$\text{Ranking Coefficient Index} = \frac{R_1 + R_2 + R_3 + \dots + R_n}{n}$$

Where,

R= Ranking of indicators

n= Total number of indicators

In order to classify the tehsil according to the development the ranking coefficient index divided into three classes i.e. high, medium and low.

List of selected indicators/variables of infrastructure development

Length of national highway per 100 Sq. km. (X1)

Length of state highway per 100 Sq. km. (X2)

Length of major district roads per 100 sq. km. (X3)

Length of other district roads per 100 sq. km. (X4)

Length of village roads per 100 sq. km. (X5)

The total number of post offices per 100 sq. km. (X6)

The total number of scheduled banks per 100 sq. km. (X7)

Total numbers of telephones per lakh population. (X8)

Percentage of villages having drinking water facility throughout the year. (X9)

Per capita consumption of electricity (kwh). (X10)

The number of electric connection. (X11)

Percentage of electrified villages to total villages. (X12)



Interpretation:

To examine the spatial pattern of infrastructure development of the district, all rank values have been aggregated. The average of all rank is considered as a ranking coefficient index. (Table No-1)

The ranking coefficient index is ranging from 3.25 to 8.17. According to ranking coefficient index value tehsils have been categorized into three categories.

Highly developed

Moderately developed

Low developed

Table No. 1 reveals that the lowest ranking coefficient index is 3.25 for Karad tehsil. It indicates that it is highly developed tehsil in the district. Man recorded higher ranking coefficient index value that is 8.17; as a result, it comes under the low developed category.

Table No. 1

Satara District

Kendall’s Rank Order for Infrastructure Development Indicators/Variables (2011)

Source: compiled by researcher

Sr. No.	Tehsil Name	Rank X1	Rank X2	Rank X3	Rank X4	Rank X5	Rank X6	Rank X7	Rank 8	Rank X9	Rank X10	Rank X11	Rank X12	Total Rank	Coefficient of Rank
1	Mahabale Shwar	5	1	1	2	1	1	3	1	11	4	11	1	42	3.50
2	Wai	2	7	5	3	3	4	4	5	5	6	6	6	56	4.67
3	Khandala	4	6	7	4	7	6	5	4	7	1	9	3	63	5.25
4	Phaltan	5	8	2	8	2	9	6	6	2	7	4	4	63	5.25
5	Man	5	4	10	11	9	11	10	10	10	9	8	1	98	8.17
6	Khatav	5	3	8	9	6	10	8	9	9	7	3	5	82	6.83
7	Koregaon	5	5	4	1	11	5	4	7	8	10	4	1	65	5.42
8	Satara	1	9	6	5	4	3	1	2	3	3	1	1	39	3.25
9	Jaoli	5	11	11	6	10	8	11	8	6	11	10	1	98	8.17
10	Patan	5	10	9	10	8	7	9	11	1	2	7	2	81	6.75
11	Karad	3	2	3	7	5	2	2	3	4	5	2	1	39	3.25

Table No- 2 depicts the level of infrastructure development in Satara district. There are three tehsils namely Satara, Karad and Mahabaleshwar belong to the highly developed category of the development.

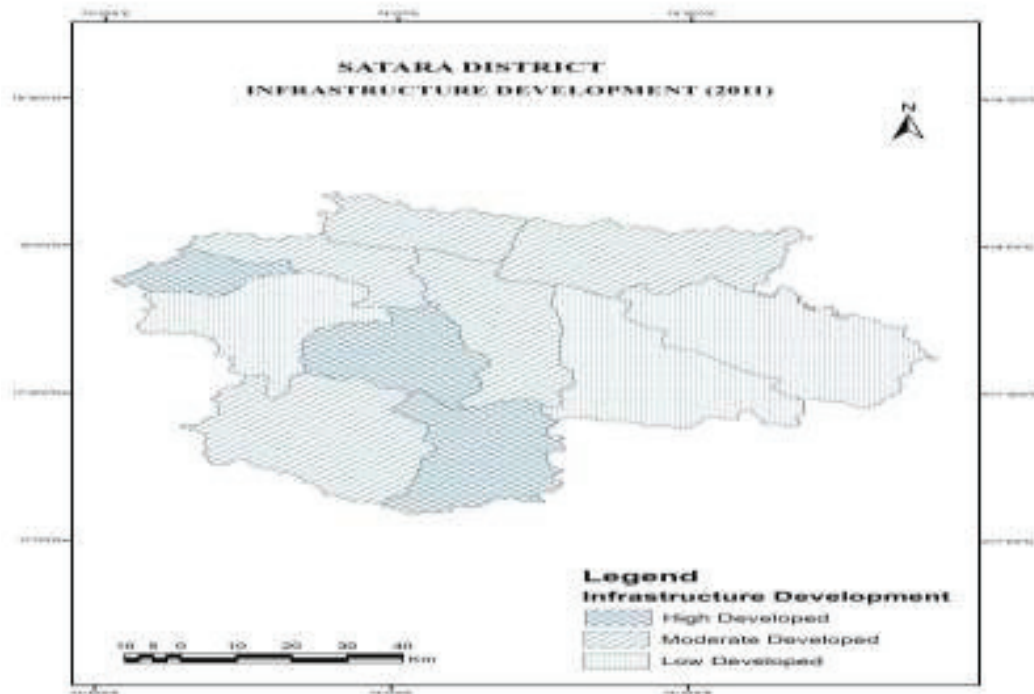


There are five tehsils which come under the moderately developed category. It includes Phaltan, Patan, Wai, Khandala and Koregaon tehsil of the district. Man, Khatav and Jaoli tehsils incorporate in low development category. (Map No.-2)

Table No-2
Satara District
Level of Infrastructure Development (2011)

Sr. No.	Level of Development	No. of Tehsil	Name of Tehsil
1	High	03	Satara, Karad, and Mahabaleshwar
2	Moderate	05	Phaltan, Patan, Wai, Khandala, and Koregaon
3	Low	03	Man, Jaoli and Khatav

Source: Compiled by Researcher



Map No. 2- Infrastructure Development in Satara District



Conclusion

The infrastructure is essential for the overall development of a particular area. The level of infrastructure development is taken as an indicator of socio-economic development of any region. There are three tehsils namely Satara, Karad and Mahabaleshwar belong to the highly developed category of the development. Phaltan, Patan, Wai, Khandala and Koregaon tehsils of the district belongs into moderately category of infrastructure development. Man, Khatav and Jaoli tehsils incorporate in low development category.

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