REVIEW OF RESEARCH

AVAILABILITY OF ROAD INFRASTRUCTURAL FACILITIES: A   STUDY OF SINDHUDURG

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ABSTRACT

The role of infrastructure in fostering economic growth and enhancing public welfare is more pronounced in developing economies like India. It has been a well-accepted fact that there exists a strong relationship between infrastructure and economic growth. Like many other developing countries, lot of emphasis has been placed on the importance of investments in infrastructure for fostering economic growth in India. . However, the availability of infrastructure can be termed anything but inadequate. The infrastructural deficits can be met possibly through better management of publicly funded projects and greater role of private players. Researcher focus on understanding development of Road Transportation in India ,development of Roads in Maharashtra ,disparities in State Highway ,disparities in Major district roads, disparities in other district roads, disparities in village roads, disparities in total Road Length, expectations about road services in Sindhudurg, Problems regarding road infrastructure. For the collection of data researcher has used primary and secondary source. The study is analytical and descriptive in nature. Primary data has collected by survey method, Secondary data required for the study are collected from books, journals and other periodicals and reports of the Government and other agencies. It is found that the Road Infrastructure is probably to play vital role in the economic upliftment of the society and economic development.

KEYWORD : *Road, Infrastructure, growth, Economic Development.*

1. INTRODUCTION:

The term infrastructure as well as word was missing from the history of economic thought up to 20th century. In Adam Smith's vision of economic development, infrastructure, particularly transportation and communication, played a key role. He investigates the "no roads, no transportation, no trade, no specialization, no economies of scale, no productivity progress, and no development" chain. The term infrastructure, on the other hand, virtually vanishes from economic discourse during the nineteenth century and much of the twentieth century. Marx, Walras, Marshall, Keynes, and Domar argued that output is only produced by labor and capital in their growth models. They believe that capital only refers to the "productive" capital of private businesses. This view was inappropriate to the developing countries of 19th century (today's developing countries), because they were already did heavily investment in infrastructure

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sector, particularly in urban areas. This somehow escaped the notice of the majority of mainstream macro-economists.

Sindhudurg is one of Maharashtra's most environmentally sensitive districts, located in the Western Ghat. The subtropical scenic beauty of Sindhudurg district is created by hills, valleys, rivers, seasonal waterfalls, rich evergreen forest covered wildlife, mango and cashew orchards, coconut plantations, and, on top of it all, the beautiful coast with virgin beaches and breathtaking beautiful back waters. Because the district is mostly hilly, it is still in the planning stages. Sindhudurg District is one of Maharashtra's most important and well-known maritime districts. Sindhudurg District has a 121-kilometer coastline. The fishing industry in this area is primarily reliant on the use of available marine resources. This area is home to a large number of different fish species.

Indian policymakers are deeply concerned about regional disparities in development and unbalanced growth. The Indian economy is characterized by geographical, cultural, and economic heterogeneity. In regional development policies, infrastructure is the most important factor. Regional development is only possible if the government's social and economic infrastructure is adequate, high-quality, and tailored to local needs. The provision of basic fundamental infrastructure, such as roads, is directly related to the level of socio-economic development of any region.

2. STATEMENT OF THE PROBLEM:

The district Sindhudurg is part of Konkan and one of the important clusters of tourism sector of the Maharashtra. However, when compared to other Konkan and Maharashtra districts, this district is underdeveloped. These districts, according to experts, have a lot of potential for the development of agriculture, agribusiness, tourism, marine, and allied industries through public infrastructure. Sindhudurg district requires well-developed public infrastructural facilities in order to achieve overall socioeconomic development.

3. OBJECTIVES OF THE STUDY:
1. To Study the public infrastructural facilities of road in Sindhudurg.
2. To Study the Problems Regarding Road Infrastructure.

4. RESEARCH METHODOLOGY:

The present research work is purely analytical in nature. In order to find out the growth, progress, and budgetary allocation on the public infrastructure, researcher has chosen analytical research method based on quantitative and qualitative data. In order to study the problems and expectations, satisfaction, present status and socio-economic contribution of selected key infrastructure researcher has used empirical research method. Primary data has collected by survey method and Secondary data required for the study are collected from books, journals and other Government websites, periodicals, and reports etc.

5. METHOD OF DATA COLLECTION
Primary Data

In order to study the qualitative aspects and for knowing the grassroots level reality, researcher had undertaken survey in the study region. By following above stated sample design respondents were selected for the rigorous study. The primary data was collected by using questionnaire and audio-video visual instruments. The questions were asked regarding the service quality, satisfaction, service efficiency, utility of infrastructure, socioeconomic impact, accessibility, availability, adequacy etc.

Secondary Data

In order to study the trend and growth of the public infrastructure in Sindhudurg district, secondary data on the selected infrastructure was collected. The secondary data is quantitative in nature and it was collected from Government publications, reputed journals, various reports, research papers, and articles.

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The major source of secondary data was socio-economic abstract of the Sindhudurg District and socio economic abstract of the district.

6. SIGNIFICANCE OF THE STUDY:

Infrastructural development is one of the most important aspects of the socio-economic development of the any country; even though without development of the infrastructural facilities, the development of agriculture, industry, trade and services is not easy. Hence, the economist and policy makers are taking more efforts to assess the need of the infrastructural facilities, and improvement in the infrastructural facilities. Keeping this view researcher has worked on present topic.

7. LIMITATION OF THE STUDY:

The major limitation of this research is that the present research is related to only public infrastructural facilities of road in Sindhudurg. Researcher is not covered all dimensions of infrastructural facilities of road. The conclusion of this research may not be applicable to other.

8. DEVELOPMENT OF ROADS IN MAHARASHTRA
  ➢ **Growth in Length of Roads in Maharashtra**

Maharashtra state is one of the leading states in the construction of roads in India.

Table No.01
Development of Road Network in Maharashtra State
Length (in Km.)

Years	Village Roads	Other District Roads	Major District Roads	State Highways	Major State Highways	National Highways	Total Road Length
2008-09	103604 (43.59)	46143 (19.41)	49621 (20.88)	33933 (14.28)	0 (0)	4367 (1.84)	237668 (100)
2009-10	104844 (43.68)	46817 (19.50)	49901 (20.79)	34102 (14.21)	0 (0)	4376 (1.82)	240040 (100)
2010-11	106400 (44.02)	46897 (19.40)	49936 (20.66)	34103 (14.11)	0 (0)	4376 (1.81)	241712 (100)
2011-12	106601 (43.88)	47529 (19.57)	50256 (20.69)	34157 (14.06)	0 (0)	4376 (1.80)	242919 (100)
2012-13	106745 (43.90)	47573 (19.56)	50256 (20.67)	27528 (11.32)	6694 (2.75)	4376 (1.80)	243172 (100)
2013-14	114556 (43.44)	52761 (20.01)	50232 (19.05)	33963 (12.88)	6338 (2.40)	5858 (2.22)	263708 (100)
2014-15	145879 (48.72)	58115 (19.41)	50585 (16.89)	33860 (11.31)	6163 (2.05)	4766 (1.59)	299368 (100)
2015-16	145879 (48.74)	58116 (19.41)	50585 (16.89)	33859 (11.31)	6163 (2.06)	4844 (1.62)	299446 (100)
2016-17	145881 (48.49)	58116 (19.32)	50844 (16.90)	33330 (11.08)	5180 (1.72)	7438 (2.47)	300789 (100)
2017-18	145881 (48.08)	58116 (19.15)	52637 (17.35)	30589 (10.08)	3861 (1.27)	12275 (4.04)	303359 (100)
Mean	**122627**	**52018.3**	**50485.3**	**32942.4**	**3439.9**	**5705.2**	**267218.1**
SD	**19179.27**	**5262.91**	**796.10**	**2070.66**	**2904.40**	**2380.54**	**28193.659**
CV	**15.64**	**10.12**	**1.58**	**6.29**	**84.43**	**41.73**	**10.55**

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CGR	3.9	2.6	0.7	-1.1	-10.4	12.2	2.7
SGR in 2017-18 over 2008-09	40.81	25.95	6.08	-9.85	-42.32	181.09	27.64

Source: Directorate of Economics and Statistics, Economic Survey of Maharashtra 2017-18

A. Village Roads

In 2008-09, the total length of village roads was 103604 kilometers, accounting for 43.59 percent of Maharashtra's total road length. In Maharashtra, the number of people using village roads is steadily increasing. The total length of village roads was 145881 kilometers in 2017-18. It means that during the time period under consideration, the village roads have grown by nearly 40.81 percent. Village roads accounted for 48.08 percent of total road length in 2017-18, indicating a significant increase in the proportion of village roads in total road length. The compound annual growth rate of village roads was found to be 3.9 percent per year, with a coefficient of variance of 15.64 percent, indicating stable growth. The mean and standard deviation of Maharashtra's village roads were found to be 122627 km and 19179.27 km, respectively.

B. Other District Roads

Other district roads had a total length of 46143 kilometers in 2008-09, accounting for 19.41% of Maharashtra's total road length. Other district roads in Maharashtra have also been steadily increasing. The total length of other district roads was 58116 kilometers in 2017-18. It means that during the reporting period, the other district roads grew by nearly 25.95 percent. Other district roads accounted for 19.15 percent of total road length in 2017-18. During the time period under consideration, this proportion has remained nearly constant. Other district roads have a compound annual growth rate of 2.6 percent per year and a coefficient of variance of 10.12 percent, indicating a very low rate of fluctuation. Other district roads in Maharashtra have a mean and standard deviation of 52018.3 km and 5262.91 km, respectively.

C. District Roads

It's worth noting that the length of district roads was only 49621 kilometers in 2008-09, but it increased to 52637 kilometers in 2017-18. It means that between 2008-09 and 2017-18, 3016 kilometers of new district roads were constructed. In 2008-09, the proportion of district roads in total roads was only 20.88 percent, but by 2017-18, it had dropped to 17.35 percent. It has grown at a compound annual rate of 0.7 percent, with a simple growth rate of 6.08 percent in 2017-18 over 2008-09. The average length of district roads is 50485.3 kilometers, with a standard deviation of 796.10 kilometers. Similarly, the coefficient of variance is 1.58 percent, indicating that there are very few variations.

D. State Highway

The length of the state highway was only 33933 kilometers in 2008-09, but it was reduced to 30589 kilometers in 2017-18. In 2008-09, the proportion of state highways in total length of roads was 14.28 percent, but by 2017-18, it had dropped to 10.08 percent. It has grown at a compound annual rate of -1.1 percent, with a simple growth rate of -9.85 percent in 2017-18 over 2008-09. The average length of state highway is 32942.4 kilometers, with a standard deviation of 2070.66 kilometers. Similarly, the coefficient of variance is 6.29 percent, indicating that there are very few variations or high stability. It's worth noting that, while Maharashtra's total road length improved significantly from 2008-09 to 2017-18, state highway length decreased significantly.

E. Major State Highway

In 2012-13, the length of a major state highway was only 6694 kilometers, which was reduced to 3861 kilometers in 2017-18. In 2012-13, the proportion of major state highways in total length of roads was

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2.75 percent, but by 2017-18, it had dropped to 1.27 percent. It has grown at a compound annual rate of -10.4 percent, with a simple growth rate of -42.32 percent in 2017-18 over 2012-13. The average length of a major state highway is 3439.9 kilometers, with a standard deviation of 2904.40 kilometers. Similarly, the coefficient of variation is 84.43 percent, indicating a high level of variability or instability. As a result, the length of Maharashtra's major state highways has been significantly reduced.

F. National Highway

The national highway's length increased from 4367 kilometers in 2008-09 to 12275 kilometers in 2017-18. It means that between 2008-09 and 2017-18, an additional 7908 kilometers of national highway were constructed. It has grown at a compound annual rate of 12.2 percent, with a simple growth rate of 181.09% in 2017-18 over 2008-09. The national highway's share of total road length was 1.84 percent in 2008-09, but it increased to 4.04 percent in 2017-18. It means Maharashtra has made significant progress in terms of national highway construction. The mean national highways were recorded at 267218.1 km during the reported period, with a standard deviation of 28193.659 km and a coefficient of variance of 41.73 percent.

G. Total Roads

In 2008-09, the total length of roads was only 237668 kilometers, but by 2017-18, it had increased to 303359 kilometers. From 2008-09 to 2017-18, a total of 65691 kilometers of new road were constructed. It has grown at a compound annual rate of 2.7 percent, with a simple growth rate of 27.64 percent in 2017-18 over 2008-09. During the study period, the mean total road length was 267218.1 kilometers, with a standard deviation of 28193.659 kilometers. Similarly, the total road length has a coefficient of variance of 10.55 percent. In conclusion, Maharashtra has succeeded in developing a strong road network, and the state continues to progress toward a well-developed road network era.

Table No.02
Region wise Road Network in Maharashtra State in 2018 Length (in Km.)

Sr. No	Division	National Highways	Major State Highways	State Highways	Major District Roads	Other District Roads	Village Roads	Total Road Length
1	Konkan Division	2070 (16.86)	508 (13.16)	3080 (10.07)	4413 (8.38)	4216 (7.25)	17500 (12.00)	31787 (10.48)
2	Nashik Division	2332 (19.0)	516 (13.36)	5793 (18.94)	9816 (18.65)	12118 (20.85)	29844 (20.46)	60419 (19.92)
3	Pune Division	2434 (19.83)	463 (11.99)	5949 (19.45)	14300 (27.17)	12019 (20.68)	33296 (22.82)	68461 (22.57)
4	Aurangabad Division	2717 (22.13)	1070 (27.71)	7005 (22.90)	12078 (22.95)	13494 (23.12)	31478 (21.58)	67842 (22.36)
5	Amravati Division	1225 (9.98)	630 (16.32)	4543 (14.85)	5817 (11.05)	7196 (12.38)	12361 (8.47)	31772 (10.47)
6	Nagpur Division	1497 (12.20)	674 (17.45)	4219 (13.79)	6213 (11.80)	9073 (15.61)	21402 (14.67)	43078 (14.20)
	Maharashtra State	**12275 (100)**	**3861 (100)**	**30589 (100)**	**52637 (100)**	**58116 (100)**	**145881 (100)**	**303359 (100)**
	Sindhudurg District	**108 (0.88)**	**150 (3.89)**	**702 (2.29)**	**1132 (2.15)**	**996.07 (1.71)**	**5201 (3.57)**	**8289 (2.73)**

Source: Directorate of Economics and Statistics, Economic Survey of Maharashtra 2017-18

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In overview, the maximum, or 27.71 percent, of total major state highway length is found in the Aurangabad division, while the minimum, or 11.99 percent, of total major state highway length is found in the Pune division. It means that the Aurangabad division, which includes districts such as Bid, Jalna, Osmanabad, Aurangabad, Naded, Parbhani, and Hingoli, has the most major state highways. In fact, the Aurangabad division is Maharashtra's largest division geographically.

9. DISPARITIES IN STATE HIGHWAY

In 2018, the state built a total of 30589 kilometers of state highway, with 3080 kilometers (10.07 percent) in Kokan division and 5793 kilometers (18.94 percent) in Nashik division. In addition, 5949 km (19.45%) of state highways are built in the Pune division, while 7005 km (22.90%) are built in the Aurangabad division. In addition, state highways of 4543 kilometers (14.85%) and 4219 kilometers (13.79%) are being built in the Amravati and Nagpur divisions; respectively Sindhudrg district has a total of 702 kilometers of state highway, accounting for 2.29 percent of the state's total state highways. In summary, the maximum, 22.90 percent of the total state highway length, is found in the Aurangabad division, while the minimum, 10.07 percent of the total state highway length, is found in the Kokan division.

10. DISPARITIES IN MAJOR DISTRICT ROADS

In 2018, the state's major district roads totaled 52637 kilometers, with 4413 kilometers (8.38 percent) constructed in Kokan division and 9816 kilometers (18.65 percent) constructed in Nashik division. In addition, the Pune division is building 14300 kilometers of major district roads (27.17 percent) and the Aurangabad division is building 12078 kilometers of major district roads (22.95 percent). In addition, major district roads in the Amravati and Nagpur divisions are being built at a rate of 11.05 percent and 11.80 percent, respectively. Sindhudurg district has 1132 kilometers of major district roads, accounting for 2.15 percent of the state's total major district roads. In summary, the maximum, or 27.17 percent, of the total major district road length is found in Pune division, while the minimum, or 8.38 percent, of the total major district road length is found in Kokan division.

11. DISPARITIES IN OTHER DISTRICT ROADS

There are 58116 kilometers of other district roads in the state, with 4216 kilometers (7.25 percent) in Kokan division and 12118 kilometers (20.85 percent) in Nashik division. In addition, 12019 kilometers (20.68 percent) of other district roads are being built in Pune division, and 13494 kilometers (23.12 percent) are being built in Aurangabad division. In addition, other district roads in the Amravati and Nagpur divisions are being built at a rate of 7196 km (12.38%) and 9073 km (15.61%), respectively. Sindhudurg district has a total of 996.07 kilometers of other district roads, accounting for 1.71 percent of the state's total other district roads. In summary, Aurangabad division has the longest other district roads, accounting for 23.12 percent of the total, while Kokan division has the shortest, accounting for 7.25 percent of the total.

12. DISPARITIES IN VILLAGE ROADS

There are 145881 kilometers of village roads in the state, with 17500 kilometers (12.00 percent) in Kokan division and 29844 kilometers (20.46 percent) in Nashik division. In addition, the Pune division is building 33296 kilometers of village roads (22.82 percent) and the Aurangabad division is building 31478 kilometers of village roads (21.58 percent). In addition, in the Amravati and Nagpur divisions, respectively, 12361 km (8.47%) and 21402 km (14.67%) of village roads are being built. Sindhudurg district has constructed 5201 kilometers of village roads, accounting for 3.57 percent of the state's total village roads. In summary, the maximum, i.e. 22.82 percent of total village road length, is found in Pune division, while the minimum, i.e. 8.47 percent of total village road length, is found in Amravati division.

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13. DISPARITIES IN TOTAL ROAD LENGTH

There are a total of 303359 kilometers of roads in the state, with 31787 kilometers (10.48 percent) in Kokan division and 60419 kilometers (19.92 percent) in Nashik division. In addition, the Pune division is building 68461 kilometers of total roads (22.57 percent) and the Aurangabad division is building 67842 kilometers of total roads (22.36 percent). In addition, total roads in the Amravati and Nagpur divisions are 31772 km (10.47%) and 43078 km (14.20%), respectively. Sindhudurg district has 5606 kilometers of roads, accounting for 1.85% of the state's total road network. In summary, the maximum, i.e. 22.57 percent of total road length, is found in the Pune division, while the minimum, i.e. 10.47 percent of total road length, is found in the Amravati division.

Finally, it can be concluded that the Pune division (Kolhapur, Pune, Sangli, Satara, and Solapur districts) has a comparatively more developed region in terms of total road length, with the Aurangabad division trailing behind (Bid, Jalana, Osmanabad, Aurangabad, Naded, Latur, Parbhani and Hingoli). In contrast, the Amravati (Akola, Amravati, Buldhana, Washim, and Yavatmal Districts) and Kokan divisions have significantly less road development (Mumbai city, Mumbai suburban, Thane, Raigarh, Ratnagiri and Sindhudurg Districts).

14. EXPECTATIONS ABOUT ROAD SERVICES IN SINDHUDURG

In table 03, the frequency distribution of people's expectations for road services is presented in detail. The expectation statement that "all roads should be good roads" is strongly agreed upon by 54.66 percent of respondents and agreed upon by 19.34 percent. 7.74 percent of respondents disagreed with the statement, while 14 percent said they were neutral. In short, 74% of respondents expected all quality roads in the study area.

This expectation statement was strongly agreed by 64.67 percent of respondents and agreed by 20.66 percent of respondents. In contrast, 2.66 percent of respondents strongly disagreed with the statement, while 4 percent disagreed with it. The remaining 8% of respondents were shown to have given a neutral response to the statement. In summary, 58.33% of respondents believe that regular road maintenance will be required in the study area. The people of Sindhudurg district expect a restroom facility every 30 kilometers, at the very least on state and national roads. The statement is strongly agreed upon by 63.33 percent of respondents and agreed upon by 24 percent. Aside from that, 2% of respondents strongly disagreed with the statement, while 3.33 percent disagreed with it. The remaining 7.33 percent of people were undecided. In summary, 87.33 percent of respondents expect washroom facilities at road sites.

Table No.03
Expectations of the People about Road Services

Responses		Frequency	Percentage
All roads should be quality roads	Strongly Disagree	7	4.66
	Disagree	11	7.34
	Neutral	21	14
	Agree	29	19.34
	Strongly Agree	82	54.66
	Total	**150**	**100.00**
Regular maintenance is necessary	Strongly Disagree	4	2.66
	Disagree	6	4
	Neutral	12	8
	Agree	31	20.66
	Strongly Agree	97	64.67
	Total	**150**	**100.00**
Washroom facility after every	Strongly Disagree	3	2

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30 Km. should be available at least at state/national roads	Disagree	5	3.33
	Neutral	11	7.33
	Agree	36	24
	Strongly Agree	95	63.33
	Total	**150**	**100.00**
All roads should be cement roads	Strongly Disagree	2	1.33
	Disagree	5	3.33
	Neutral	10	6.66
	Agree	42	28
	Strongly Agree	91	60.67
	Total	**150**	**100.00**
All roads should be Bitumen roads	Strongly Disagree	5	3.33
	Disagree	9	6
	Neutral	12	8
	Agree	26	17.33
	Strongly Agree	98	65.33
	Total	**150**	**100.00**

Source: Based on field survey

'All roads should be cement roads', this expectation statement were strongly agreed by 60.67 percent respondent and agreed by 28 percent respondents. On the contrast, 1.33 percent respondents were strongly disagreed and 3.33 percent respondents were disagreed to the same statement. The remaining 6.66 percent respondents were shown neutral response to the given statement. In concise, 87.67 percent respondents are expecting necessity of regular road maintenance in study region. 'All roads should be Bitumen roads' is an expectation of the people in study area. The statement is strongly agreed by 65.33 percent respondents and agreed by 17.33 percent respondents. Beside this, 3.33 percent respondents were strongly disagreed and 6 percent respondents were disagreed to the same statement. The remaining 8 percent respondents were agreed to some extent. In concise, on an average 82.66 percent respondents are expecting bitumen roads.

Table No.04
Satisfactions of the People

Satisfactions Level		Frequency	Percentage
I am satisfied with roads at my vicinity	Strongly Disagree	73	48.66
	Disagree	17	11.33
	Neutral	12	8
	Agree	29	19.33
	Strongly Agree	19	12.67
	Total	**150**	**100.00**

Source: Based on field survey

Satisfaction of the People with the Road and Road Services in Sindhudurg District

Table 04 shows that 12.67 percent of respondents are extremely satisfied with the road and road services. In the Sindhudurg district, 19.33 percent of respondents are satisfied with the road and road services. A total of 8% of the sample respondents are satisfied to some degree. In addition, 11.33 percent of the total sample respondents are extremely dissatisfied with road services in the study area, while 48.66 percent are dissatisfied with road services in the study area. It means that 59 percent of respondents in the Sindhudurg district are dissatisfied with roads and road services.

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Problems from Demand Side

The section addresses people's concerns about a number of key infrastructures, including roads. Because it is a coastal and hilly area, there are several obstacles to the government's efficient provision of these infrastructures on the one hand, and increased demand for these key infrastructures on the other, resulting in poor efficiency in the provision of these services.

15. PROBLEMS REGARDING ROAD INFRASTRUCTURE

Table 05 indicates various problems faced by the sample respondents in the context of road and road services. The 84.66 percent respondents are reported poor quality of road. Likewise, 92.97 percent respondents reported the lack of proper drainage pattern which becomes one of the major causes of road damage during the rainy season. According to 78 percent sample respondents there is no regular maintenance of road in Sindhudurg district. Furthermore, the 92 percent respondents are reported no safeguard in Ghat section which is one of major causes of road accidents in the Ghat sections. According to 94.66 percent respondents, there is no maintenance during the rainy season. In addition, 96.66 percent respondents are reported the issue of land sliding which become obstacle in efficient road transportation during the rainy season.

Table No.05
Problems Regarding Road Infrastructure

Problems Regarding Road and Road Services		Frequency	Percentage
Poor road quality	Yes	127	84.66
	No	23	15.33
	Total	**150**	**100**
Lack of proper drainage pattern	Yes	132	88
	No	18	12
	Total	**150**	**100**
No regular maintenance	Yes	117	78
	No	33	22
	Total	**150**	**100**
No Safeguard in Ghat section	Yes	138	92
	No	12	8
	Total	**150**	**100**
No maintenance during rainy season	Yes	142	94.66
	No	8	5.34
	Total	**150**	**100**
Land Sliding in Ghat Section	Yes	145	96.66
	No	05	3.33
	Total	**150**	**100**
Any other	Yes	131	87.34
	No	19	12.66
	Total	**150**	**100**

Source: Based on field survey

Apart from the issues mentioned, 87.34 percent of respondents are dealing with other issues. In summary, residents of Sindhudurg district face issues such as poor road quality, lack of proper drainage, lack of regular maintenance, no safeguard in the Ghat section, lack of maintenance during rainy seasons, and land sliding.

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16. CONCLUSION:

The investigation's first goal was to assess the performance of key public infrastructure in Sindhudurg district. The research was conducted using both primary and secondary data. It has also concentrated on the macro-level progress of key infrastructure in India and Maharashtra, with a particular focus on the Sindhudurg district. The physical and financial progress of electricity, roads, drinking water, primary education, and public health have all been presented in detail. The primary data was gathered from the district's residents in order to learn about their perceptions of public infrastructure, expectations, problems, and satisfaction. The findings of the study show that key public infrastructure in Sindhudurg district is severely lacking. Because of the inadequacy of the public infrastructure, the district's potential resources are still underutilized. Adventure tourism, coastal tourism, pilgrimage tourism, and historical tourism are some of the major areas of development where the district administration can invest and generate significant revenue that can be used for district development. Sindhudurg district has a lot of tourism potential, and there are a lot of historical forts and places that can be developed into development centers. To reap the benefits of these tourist destinations, the government must invest in critical infrastructure such as roads, railways, electricity, drinking water facilities, and banks, among other things. The district's industrial, agricultural, fishery, and marine sectors all have significant development potential, which can be realized by establishing a strong infrastructural network. Thus, the district can march towards long-term sustainable growth and set new development benchmarks by considering the findings and implementing the viable suggestions provided in the current research work.

17. SUGGESTIONS:

Reflectors are scarce on roads throughout the district, particularly in the Ghat section, where they play an important role during night travel. Hence, it has suggested that to provide reflectors in both sides of roads in entire study region, it will help in reducing the road accidents. There is an absence of side belt roads in study region. Hence it has strongly recommended that there should be 1 meter wide side belts at both sides of the roads. The PWD should consider the intensity of rainfall while constructing roads and road should be builds accordingly. The innovative technology should be adopted for the road development in this region. For example use of waste plastic in the construction of road along with other essential material can assists in road durability and quality. Because plastic is not damaging by heavy rainfall or temperature.

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