

Accessibility Of Main Road Network In West Vidarbha Region (Maharashtra State)

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Abstract

Road plays an important role to the development of any region. Accessibility is the main factor which impact to the distribution of many factors like population, market centers, educational centers, entertainment facilities etc. West Vidarbha is the part of Vidarbha region in Maharashtra state and found averagely development of road network. Present paper has attempts the evaluation of accessibility of main road network in the study region.

Keywords: *Main roads, accessibility, evaluation, high, low*

Introduction

Accessibility is the concept regarding time and distance from the main road network in the region. Generally, 3 to 5 km distance from road network is an accessible and accessibility decreases when the distance from main road is increases. More than 15 Km distance from road network is always found non accessible. Mainly the population density, market centers, commercial centers etc maximum located in high accessible region. Accessibility is also impact on the rate of lands, products etc.

Objectives of the Study

The main objective of the present research work is to analysis the accessibility of main road network in the West Vidarbha region.

Study Region

West Vidarbha is located in between 19⁰ 23' N to 21⁰ 43' N latitude and 75⁰ 57' E to 79⁰ 09' E longitudes. The region occupied 46018 sq.km geographical areas which is 14.75 % to Maharashtra state's geographical area. Total population of the study region is 11258117 according to the year 2011 census, Amravati, Akola, Washim, Buldhana and Yavatmal, these 5 districts are included in West Vidarbha region. West Vidarbha region is also known as Amravati Division and Amravati is the head quarter of the division.

Data Source & Methodology

The present research paper is based on the graphical analysis. The road network map of study region is collected from the Public Work Department Divisional Office, Amravati. The analysis and evaluation of accessibility is based on the year 1981 and 2001 for the comparative study.

Accessibility map is created in GIS Software by the distance applied 3 to 15 km from main road network using existing map scale. The area of each accessibility zone is calculated of the year 1981 and 2001.

Accessibility of Main Road Network

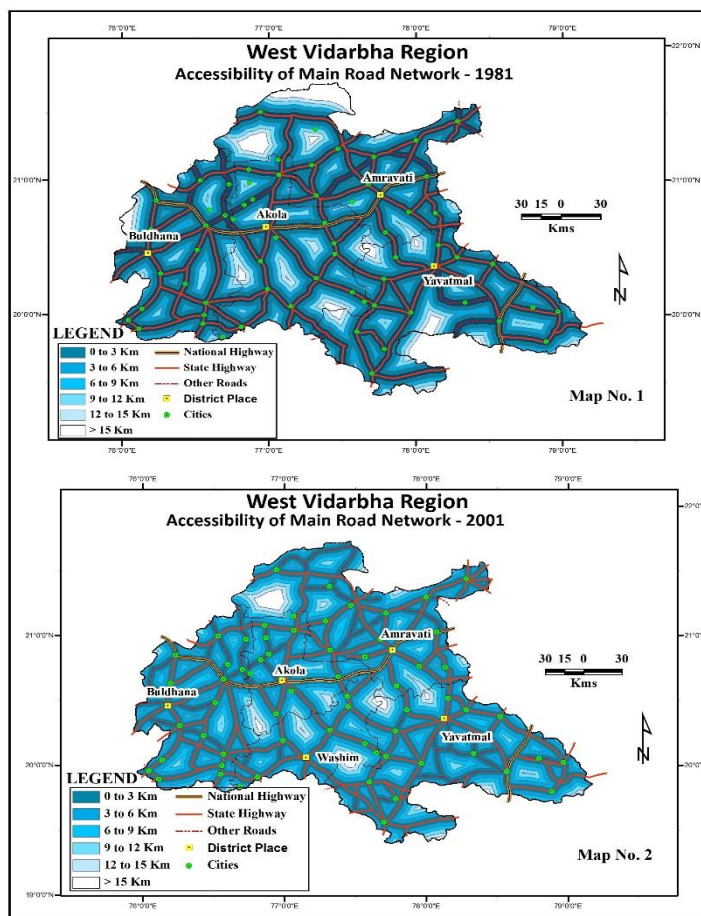
The zone of accessibility and its area of the study region is presented in the table no 1

Table No 1

West Vidarbha Region: Accessibility Zone and Area

Accessibility Zone (Km)	Year 1981 (Area in SqKm)	Year 2001(Area in SqKm)
0 to 3	18053	21696
3 to 6	13013	13497
6 to 9	7943	6438
9 to 12	3768	2686
12 to 15	1814	1185
Above 15 (Non Accessible)	1427	516
Total	46018	46018

Source: - Calculated by researcher



It is observed that the area of 0 to 3 km accessibility zone is increased in 2001 from 18053 sqkm to 21696 sqkm because the growth of main road network during this period. The area of 3 to 6 km accessibility zone is also increased in 2001 than 1981.

The moderate to low road accessibility area i.e. 6 to more than 15 km area from main road network from both sides is decreased because the area of high accessibility is increased in 2001. But rate of increasing rate of high accessibility is not sufficient compare to the high traffic and demand of the region.

In 1981 the non-accessible area of the region is 1427 sqkm and in 2001 it found 516 sqkm. Total 911 sqkm area of the region included in accessible region during 1981 to 2011 but still 516 sqkm area of the region has non accessible due to the poor development of main road network in particular region.

Map No 1 and 2 shows the accessibility of main road network of the West Vidarbha region of the year 1981 and 2001.

Conclusions and Suggestions

Main Road network of the study region has improved during 1981 to 2001 therefore the area of high accessibility is increased during this period. But the growth rate of increasing accessibility is not enough compare to the traffic and demand of the region.

Every tahsil main place in the region is connected with state highways network but many important places such as tourist centers, weekly market centers till not connected through main road network and it has reduced the accessibility of such regions.

The construction of main road network is also not uniform in all over the region therefore it is an essential to develop the main road network in all over the region according to the traffic and demand of the region. The high accessibility of the main road network impacts on the distribution of population, educational centers, market centers etc therefore the growth of main road network increased the accessibility and accessibility of main road network will help to the development of the study region.

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