



## GEOGRAPHICAL ANALYSIS OF LOCATION QUOTIENT OF RURAL POPULATION IN CHANDRAPUR DISTRICT OF MAHARASHTRA STATE

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### ABSTRACT:

Rural population is an important component of Indian economy. Most of India's population lives in rural areas and important and other primary industries like agriculture are based in rural areas. Almost 70% of India's population lives in rural areas and mainly this population is the major resource population of the country.

Under the presented research paper concentration has been studied by taking location index of rural population in Chandrapur district of Maharashtra state.

**Key words:** - Rural Population, Concentration, Location Quotient.

### INTRODUCTION :

Rural population concentration is measured by the location index and the location index helps to explain the proportion of population in a particular region. India's rural population is around 1.35 billion in 2018, according to the latest UN data. Rural population is an important and necessary factor for the basic development of any country. Due to various reasons like good climate, fertile land, irrigation facilities etc. the location index of rural population is found higher in certain regions.

### OBJECTIVES OF THE STUDY :

The specific objectives of the present research paper are as follows,

- 1 To study the rural population in Chandrapur district.
- 2 To calculate and analyze the concentration of rural population with the help of location quotient.

### Data Source and Methodology

The data used for the present research work is based on secondary sources. Information on rural population of Chandrapur district, as well

as information on rural area has been compiled from census manuals 2001 and 2011.

Location quotient of rural population calculated according to the formula suggested by C.D. Deshpande and Sapate (1952). The formula is given as follows,

$$LC = \frac{P_i}{A_i}$$

LC – Location Quotient (Concentration Index),  $P_i$  – Increasing Rural Population between two decades,  $A_i$  – Area in Rural Region (Sq.Km)

The information obtained and calculated according to the formula are arranged in a table and the distribution of concentration index is shown in the map of the study region and the distribution of rural area and rural population increase during two decades is shown with the help of graph.

### Study Region

Chandrapur district is located in southeast of Maharashtra state. The district extended from 18° 4' north to 20° 5' north latitudes and 78° 5' east to 80° 6' east longitudes.

District is bounded with Gadchiroli district to east, Yavatmal towards west. Wainganga river

makes the eastern boundary of the district. Total geographical area of the district is 11443 SqKm and stands at 14<sup>th</sup> number in Maharashtra state about the geographical area. Chandrapur district has 15 tahsils (Table No 1), and total population of the district is 2204307 according to the census 2011. District having total 1792 villages and out of them 1463 are habited and 329 are uninhabited.

### **Distribution of Rural Population in Chandrapur District - 2001 & 2011**

According to the census year 2001 total population of the district is 1406034 and it is 67.88% to the total population. The male rural population is 50.96% and female is 49.04%. The maximum distribution of rural population is found in Chimur tahsil, the distribution of this tahsil more than one lakh fifty thousand. Mul, Chandrapur Bhadravati, Gondpipri, Pombhurna, and Ballarpur tahsil recorded the lower distribution of rural population. The rural populations in these tahsils are found less than one lakh. Remaining tahsil found the rural population in between 1 to 1.25 lakh as per the census year 2001.

According to the census year 2011 total rural population of the district is 1428929 and out of them 50.81% is male and 49.19% are female population. Total ratio of rural population with total population is 64.82% and it is slightly decreased than 2001. Chimur (169547) tahsil again found the highest distribution of rural population, while Ballarpur tahsil (31854) recorded lowest distribution of rural population in the entire district Rajura, Mul, Bhadravati, Korapana, Chandrapur, Gondpimri, Jiwati,, Pombhurna and Ballarpur tahsils found less than 1 lakh rural population. In remaining tahsil this population is found in between 1 to 1.34 lakh.

The total rural population is increased in 2011 but in several tahsil the rural population has decreased. Therefore total ratio of rural

population with total population is found less in 2011 compare to the year 2001.

### **Location Quotient of Rural Population in Chandrapur District**

Table No 1 shows the Tahsil wise rural population of the year 2001 and 2011, increasing rural population between 2001 to 2011, rural area and location quotient.

Total 22895 rural populations is increased in the district during the year 2001 to 2011. Maximum increasing ratio of rural population is found in Chimur tahsil. The rural population is decreased in Bhadravati, Chandrapur, Mul, Ballarpur, korapna, Rajura and Gondpipari due to the growth of urbanization. Figure no 1 shows the rural area and increasing rural population between the years 2001 to 2011.

The location quotient has classified into four categories, negative values i.e. below '0' as very low concentration, values in between 0 to 5 as low concentration, 5 to 10 as moderate and the values more than 10 as high concentration of rural population.

### **Very Low Concentration of Rural Population**

In the region Korapna (-70.88), Ballarpur (-52.77), Raura (-24.37), Chandrapur (-5.67), Gondpipri (-4.52), and Bhadravati (-0.87) tahsil found the very low concentration of rural population. The location quotient of these tahsils are calculated as negative because the decreasing rural population during the period 2001 to 2011.

The negative indices shows the non development of rural region in these tahsils, low agriculture production, unemployment, lack of health facilities and proper education etc are the main reasons to decreased rural population,

### **Low Concentration of Rural Population**

Warora (1.12), Mul (2.90) and Sawali (4.90) tahsils recorded the location quotient in between 0 to 5 and found low concentration of rural population. The rural population is increased in these tahsils but the rate of growth is poor. The

rural region of these tahsils quite developing than negative indices of location quotient tahsils.

#### **Moderate Concentration of Rural Population**

Sindewahi (5.26), Pombhurna (7.23), Bramhapuri (9.92) tahsils found the indices in between 5 to 10. The growth of rural population compare to the geographical area of these tahsils is moderate. The basic facilities are moderately develop and agricultural production is greater than low population concentration region.

#### **High Concentration of Rural Population**

Jiwati tahsil has been separated from Korpana tehsil in 2011, so the rural population of Korpana tehsil is seen to decrease while that of Jiwati is seen to increase. Between 2001 and 2011, the rural population has increased the most in Chimur and the rural area is more dense. Therefore, maximum rural population is concentrated in this tahsil (Figure No 2).

#### **CONCLUSIONS AND SUGGESTIONS :**

The rural population is the backbone of the economy as agriculture is the major occupation in the rural areas. The continuous migration of population from rural areas to urban areas is a matter of concern. Population is a resource and must be balanced.

In the study region, the declining proportion of rural population in Korapna (-70.88), Ballarpur (-52.77), Raura (-24.37), Chandrapur (-5.67), Gondpipri (-4.52), and Bhadrawati (-0.87) tahsils is indicative of rural instability. There is lack of development in the rural areas of this taluk and migration to urban areas is mainly found for

employment. Therefore, the rural areas lack population resources and the level of development deteriorates further, while in the urban areas there is a problem of excess population and various types of pollution increase.

Korpana tehsil was divided and Jivati tehsil was formed, so the rural population in Korpana is reduced.

Population growth must be controlled in both rural and urban areas. It is also necessary to stop excessive migration from rural areas to urban areas. There is a need to improve the way of farming and for that, it is necessary to encourage agribusiness and industries. People who do not have their own agricultural land will get employment throughout the year and will not migrate to urban areas.

Decreasing population concentration index in rural areas of Chandrapur district is the biggest obstacle in rural development. For that purpose it is necessary to balance the concentration of rural population.

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**Table No 1 - Location Quotient of Rural Population in Chandrapur District**

<b>Name</b>	<b>2001</b>	<b>2011</b>	<b>Pi</b>	<b>Li</b>	<b>LC</b>
Warora	123872	125008	1136	1012.34	1.12
Chimur	156772	169547	12775	1142	11.19
Nagbhir	124425	133020	8595	735.3	11.69
Brahmapuri	122279	130140	7861	792.83	9.92
Sawali	104686	107937	3251	663.33	4.90
Sindewahi	106275	110440	4165	792.06	5.26
Bhadravati	85295	84309	-986	1127.06	-0.87
Chandrapur	86065	79936	-6129	1080.92	-5.67
Mul	87779	89162	1383	476.36	2.90
Pombhurna	47906	50781	2875	397.81	7.23
Ballarpur	43727	31854	-11873	224.98	-52.77
Korpana	121479	84302	-37177	524.51	-70.88
Jiwati	-	61820	61820	559.15	110.56
Rajura	120915	99475	-21440	879.83	-24.37
Gondpipri	74559	71198	-3361	743.92	-4.52
<b>Total District</b>	<b>1406034</b>	<b>1428929</b>	<b>22895</b>	<b>11152.4</b>	<b>2.05</b>

Source – Data is compiled from District Census Handbook and LC is calculated by author

