



Distribution and Concentration of Urban Population in Ahmednagar District of Maharashtra State

* Thombare Pandurang Yadavrao **Dr. Adavitot S.C.

* Asst. Professor in Geography New Arts, Commerce and Science College, Shevgaon, Dist. Ahmednagar (Maharashtra) (Affiliated to University of Pune)

** HOD, Department of Geography, C.B.K's B. Sci., R.V. Com., R.J. Arts college, Akkalkot-413216 Dist – Solapur (Maharashtra)

ABSTRACT

With the help of 'percentage method' and 'Gini concentration Ratio' analyze distribution and concentration of urban population in Ahmednagar district. Temporal variations are found in this regard since last 50 years. Highest 'Gini concentration ratio' i.e. 0.5293 observed in 2001 and lowest ratio observed i. e. 0.3614 in 1971 than other years. High ratio in 2001 denotes high concentration and uneven distribution of urban population and low ratio in 1971 denotes low concentration and even distribution of urban population in Ahmednagar District.

Summary: As per 2001 the Ahmednagar city shared more than 38 percent urban population. Shirampur, Sangamner and Kopergaon towns are collectively proportionate 25.28 per cent urban population because of they situated in the Godavari (Mula-Pravara) river basin. Whereas, 25.85 per cent urban population lives in remaining other 10 urban centers. Jamkhed, Pathardi and Shrigonda proportionate low urban population

Keywords : Urbanization, urban centre, Gini concentration ratio, Town

STUDY AREA: Ahmednagar district has been selected for the present investigation. It lies (Map 1) between 18° 2' N. and 19° 9' N. latitudes and 73° 9' E. and 75° 5' E. longitudes. It is surrounded by Nashik district to the north, Aurangabad district to the north-east, Beed district to the east Osmanabad and Solapur district to the south, Pune district to the west and, Osmanabad and Solapur district to the south, Pune district to the west and Thane district to the north west.

As per 2001 census the population of district is 40,40,642 which is 4.17 per cent of the total population of Maharashtra. The district consist 14 tahsil namely, Akole, Sangamner, Kopergaon, Shirampur, Nevasa, Shevgaon, Pathardi, Nagar, Rahuri, Parner, Shrigonda, Karjat, Jamkhed and Rahata. They consist 1587 villages and 18 towns in which 11 are statutory towns and 7 census towns. Only 9 tahsil namely Sangamner, Kopergaon, Shirampur, Pathardi, Nagar, Rahuri, Shrigonda, Jamkhed and Rahata are as urban in character. Remaining 5 tahsil i. e. Akole, Nevasa, Shevgaon, Parner, Karjat etc. totally as a rural in character. The total rural population of the district is 32, 36,945 (80.1%) and urban population is 8, 03,697 (19.9%) as per 2001 census.

OBJECTIVES:

1. To classify urban places in Ahmednagar district into six classes on the basis of population size as per census of India
2. To analyze town wise and class wise distribution and concentration of urban population in Ahmednagar district.

DATABASE AND METHODOLOGY: The present study is mainly based on secondary source of data. The required essential data has been collected from the District Census Handbook, Ahmednagar, 1951-2001.

The 'Percentage method' and 'Gini concentration ratio' have been employed to study distribution and concentration of urban population. 'Gini concentration ratio' can be calculated by using following formula:

$$G_i = \left(\sum_{i=1}^n x_i Y_i + 1 \right) - \left(\sum_{i=1}^n X_i + 1 Y_i \right)$$

Where:

G_i refers to the Gini concentration ratio,



Map 1

X_i refers to cumulative proportion of population,

Y_i refers to cumulative proportion of units

n refers to the number of class intervals.

TOWN WISE DISTRIBUTION AND CONCENTRATION OF URBAN POPULATION: Table-1 shows town wise and class wise distribution of urban population as regard as total and percent. There are eighteen towns in Ahmednagar district. Out of them Ahmednagar city being a largest and it constitute 3, 07,615 population which proportionate more than 38.00 percent urban population of district. Followed by in Shrirampur lives 81,255

Table No. 1: Ahmednagar District: Classification of urban places into the six classes.

Class of town	Size of Urban Place or Town	No. of Urban Units	Name of urban Units or towns	Total urban Populat-ion of each town	% shared of urban Population by each town	Total urban Population of each class.	% share of urban Populat-ion by each class.
1	2	3	4	5	6	7	8
I	100000 & >	01	Ahmednagar	3,07,615	38.27	3,07,615	38.27
II	50,000 to 99,999	03	Shrirampur	81,255	10.11	2,03,183	25.28
			Sangamner	61,958	07.71		
			Kopargaon	59,970	07.46		
III	20,000 to 49,999	07	Ahmednagar Cantonment Board	39,934	04.98	2,07,739	25.85
			Rahuri	34,476	04.29		
			Devlali Pravara	30,340	03.77		
			Jamkhed	27,654	03.44		
			Shrigonda	26,324	03.27		
			Shirdi	26,184	03.26		
IV	10,000 to 19,999	04	Pathardi	22,827	02.84	62,970	07.83
			Ghulewadi	19,367	02.41		
			Rahata	19,019	02.37		
			Nagardeole	13,724	01.71		
V	5,000 to 9999	03	Shikhar Shinganapur	10,860	01.35	22,190	02.77
			Bhingar	7620	00.95		
			Shrirampur (Rural)	7,506	00.93		
VI	< 5000	Nil	Nagapur	7,064	00.88	-----	-----
			-----	-----	-----		
Total		18	Ahmednagar district.	8,03,697	100.00	8,03,697	100.00

Source: Computed by Authors.

urban population shared with more than 10 percent of total urban population of district. Sangamner and Kopargaon stood rank third and fourth. They contained about 61958 and 59970 urban population with proportionate by approximately 8 and 7 percent to total urban population of district respectively. About 39,934 urban population lives in Ahmednagar Cantonment Board which shared approximately 5 percent to total urban population of district. Then, Rahuri and Devali Pravara each shared near about 4 per cent, Jamkhed, Shrigonda, Shirdi and Pathardi each contributed approximately 3 per cent urban population of district. Whereas, Ghulewadi, Rahata and Nagardeole each shared 2 percent and remaining three namely, Shikhar Shinganapur, Bhingar, Shrirampur (rural) and Nagapur each witnessed approximately 1 per cent urban population of district.

All over discussion revealed that it is found more uneven distribution and concentration of urban population in towns of Ahmednagar district. More than 63.65 percent urban population concentrated in only four towns namely, Ahmednagar city (shared more than 38 per cent), Shrirampur, Sangamner and Kopargaon. While 36.35 per cent urban population of Ahmednagar district dispersed in 14 towns with ranges between approximately 1 and 5 percent.

CLASS WISE DISTRIBUTION OF URBAN POPULATION:

Table-1 revealed that only a Ahmednagar city is a first class town, and district headquarter. It contained 3, 07,615 total urban population which shared more than 38 per cent urban population of district. Further it is observed that three towns namely, Shrirampur, Sangamner and Kopargaon comprise in second class towns. About 2, 03,183 populations contained in second class towns and they proportionate 25.28 percent urban population of study area. There are seven towns are included in third class with 2, 07,739 urban population and they shared 25.85 percent urban population of district. Four towns are comprised in fourth class towns and they contained about 62,970 total populations

which proportionate 7.83 urban population. Remaining 22,190 total means 2.77 percent population lives in three towns which are included in fifth class.

Shortly, it is noticed and found more uneven distribution of urban population in first, second, third, fourth and fifth class towns in Ahmednagar district. Urban population of Ahmednagar district highly concentrated i.e. more than 38 percent in first class city of Ahmednagar. Followed by second and third class each contributes more than 25 percent. Only 10 percent population comprises collectively in fourth and fifth class towns.

GINI CONCENTRATION RATIO: Table-2 revealed, temporal variation in 'Gini concentration ratio' of Ahmednagar district from 1951 to 2001.

Table 2: Ahmednagar District: Gini concentration Ratio, 1951-2001.

Unit/Year	1951	1961	1971
Ahmednagar	0.4147	0.4903	0.3614

continue.....

Unit/Year	1981	1991	2001
Ahmednagar	0.4595	0.4345	0.5293

Source: Computed by Authors.

It observed that 0.4167 in 1951 and after it attained ups and down from 1961 to 2001. Highest Gini concentration ratio i.e. 0.5293 observed in 2001 and lowest ratio observed i.e. 0.3614 in 1971 than other years.

Both tables-2 and 3 show that in 2001, the 'Gini concentration Ratio' for urban population living in five size categories of eighteen urban centers in Ahmednagar district was 0.5293. It is a high co-efficient of urban concentration, im-

plying that only Ahmednagar has big urban centre, and it included in first class city. Table-1 revealed that out of total urban

Table 3: Ahmednagar District -Computation of Gini concentration Ratio, 2001.

Sr. No	Size of Urban Place	No. of Urban Units	Population	Proportion of	
				Units Yi	Population Xi
1	2	3	4	5	6
	All Localities	18	8,03,697	1.000	1.000
01.	100000 & >	01	3,07,615	0.0555	0.3827
02.	50,000 - 99,999	03	2,03,183	0.1667	0.2528
03.	20,000 - 49,999	07	2,07,739	0.3889	0.2585
04.	10,000 - 19,999	04	62,970	0.2222	0.0784
05.	05,000 - 09999	03	22190	0.1667	0.0276
06	< 5000	Nil	-----	-----	-----

Continue.....

Proportion of		Cumulative Proportion Of		Xi Yi + 1	Xi + 1 Yi
Units Yi	Population Xi	Units	Population		
5	6	7	8	9	10
1.000	1.000	-----	-----	-----	-----
0.0555	0.3827	0.0555	0.3827	0.0353	0.0850
0.1667	0.2528	0.2222	0.6355	0.1986	0.3883
0.3889	0.2585	0.6111	0.8940	0.5942	0.7450
0.2222	0.0784	0.8333	0.9724	0.8333	0.9724
0.1667	0.0276	1.0000	1.0000	-----	-----
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$\sum_{i=1}^n =$				1.6614	2.1907

Gini Concentration Ratio: (difference of sums of column 9 and column 10) = **0.5293**

population, more than 38 percent of urban population concentrate in only Ahmednagar city. Ahmednagar district had disproportionately large share in the district's total urban population and large number i.e. seven of small towns accounted

for only an insignificant proportion i.e.10% of the district's total urban population. Class wise eighteen urban centers with urban population of Ahmednagar district are as under. When the entire urban population is concentrated at one point or urban unit, the 'Gini concentration ratio' becomes unity 1.000. The 'Gini concentration ratio' found in ranges between 0.0 to 1.00. Here zero imply even or uniform distribution of urban population and 1.00 indicates that a more uneven distribution. Lower the value of this ratio, thus, imply a more uniform distribution of urban population and higher the value of this ratio, imply a more uneven distribution.

CONCLUDING REMARKS AND FINDINGS:

1. It is concluded that Ahmednagar is a district headquarter therefore, it attained administrative activities in extensive scale. It results that migration of population has been occurred from various rural centers to Ahmednagar urban center.

Therefore the city of Ahmednagar attained first rank in respect of urban population.

2. Remaining maximum urban population situated in the northern part of district especially in Godavari (Mula-Pravara) river basin. Only three urban centers namely: Shirampur, Sangamner and Kopergaon contained 25.28 per cent urban population. Whereas, 25.85 per cent urban population lives in remaining 10 urban centers. .
3. There are ten urban centers of Ahmednagar district attained high proportion i.e. 25.85 per cent of urban population of district. Above mentioned all urban centers are densely populated. Due to development of agriculture especially sugarcane because of there are plain area, fertile deep alluvial soil, irrigation facilities are available in that area. It results that there sugar industries are well developed.
4. Tahsil situated in the southern and eastern part of district experienced scarcity of water for agriculture and sometimes drinking purposes also. Therefore, Jamkhed, Shrigonda and Pathardi all being lower ranks either of development and urban population. It is essential to note here that there is need of proper planning for the development of these lower ranked towns. Whenever, preference can be given first to infrastructural facilities, politicians can give attention to create permanent source of water and immediate attempt to establishment of small scale industries.

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