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POPULATION GROWTH AND DISTRIBUTION IN SOLAPUR DISTRICT: A GEOGRAPHICAL ANALYSIS

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ABSTRACT:

Growth and Density of Human Population is one of the basic demographic characteristics, The Population density and growth helps in various types for Planning for Urbanization, Industrilisation, Transportation and Agriculture .The Population Growth density can be reflect Sociological economic and marginal characteristics of Population. The Land use gets modified based on the population**.** Solapur district area under present investigation lies entirely in the Bhima Sina-Man river basins of Krishna river system of South Maharashtra. The Physiography of the district may be grouped into three parts i.e. I) The Hills and Ghats height between (750M to 850M) II) The Foot hills (650M to 750M). III) The Plains and Plateau (below 500M TO 600M). The district has a total area of 14886 Kms^2 and population of 4317756 persons as per 2011 census which constitute purposes; the district is divided into eleven tehsils (Fig.No.1) e.g. North Solapur, Barshi Akkalkot, South Solapur, Mohol Managalwedha, Pandharpur, Sangola, Malshiras, Karmala and Madna.The Solapur district is located in Southern Maharashtra. The population of the district is 385583(2001) and the decadal growth rate of population has been about 19.32 per cent, It is less than that of state 16.99 percent which has again decreased in 2011 by 11.99. High Population density zone having of Above 300 per Sq.km observed in the North Solapur, Pandharpur and Malshiras, North Solapur etc. having highest density of population in the tehsils region, because the district headquarter falls in tehsils. Pandharpur and Malshiras tehsils are facilities by well developed canal Irrigation system. The research paper is based on Secondary sources of data collected. Research paper is examined Population Growth and Distribution in Solapur district.

Key Ward:-Density, Growth, and Population

INTRODUCTION:

The Population provides basic resource to agriculture in various forms .The land use gets modified based on the population .population growth and literacy is instrumental in bringing about agricultural change in an agrarian society. These exit best in each other's company, huger makes mean willing to work and new ideas gives them incentives for action (Sing Dhillion, 1987) the analysis of patterns of population geography of an area, because it is the pattern of population distribution and density with which all other, characteristics of population are in timely related The land and people constitute the two significant elements of an area, and therefore the ratio between these two is of fundamental interest to all scholars concerned with population analysis (Demko,1976) a comparative understanding of changes in various significant attributes of population demands the study of prevailing patterns of its distribution, it reveal as to how man has attributed himself, at a particular point of time in the context of physical environment, type of economy, cultural patterns and history. The distributional patterns of population are, in fact, an eloquent expression of the analysis of all geographic phenomena operation in area. Geographer's goal is to understand the regional differences of people on the earth surface, which various from locality to another and from regional to region. It has, thus been considered as simple but extremely useful measure of population resource relationship. However; it cannot be treated as a measure of population pressure on land because it merely spells out a simple quality (Chandana and Sindhu, 1980) .a study of population distribution is thus descriptive as well as analytical. The concept of population distribution is thus descriptive as well as analytical. The analysis of population distribution and density holds immense significance for agriculture geographers. It's important for agricultural development.

OBJECTIVES:

The Present research paper is examined Population Growth and Distribution in Solapur district.

DATABASE & METHODOLOGY:

The present research paper is based on Secondary sources of data mainly collected from districts census Hand books, Socio-Economic abstracts of Solapur District. Population Growth is Measured variation between past to present population. The growth of population means any change in population number, further it refers to the growth of human population in a particular area during specific period of time, if this change is in negative direction then population decreases and if it is in positive direction then the population increases. The concept of population distribution and density is a very useful tool for the analysis of mans distribution in space (clarke1972) one of the important indices of population concentration is the density of population. The data was tabulated and presented in the form of cartographic techniques and maps

STUDY AREA:

Solapur district area under present investigation lies entirely in the Bhima Sina-Man river basins of Krishna river system of South Maharashtra. The district is bounded by 17^{o} 10' North and 18^{o} 32' North latitudes and 74^{o} 42' East and 76^{o} 15' East longitudes. The district is fairly well defined to its west as well as its east by the inward looking scarps of Phaltan range and Osmanabad plateau respectively. The adjoining districts are Sangli to its south west, Satara to its west, Pune to its north-west, Ahmadnagar to its north, Bhir and Osmanabad to its east and Bijpur district of Karnataka state to its south. Broadly the Physiography of the district may be grouped into three parts i.e. 1) The Hills and Ghats height between (750-850) meters II) The Foot hills (650-750) meters. III) The Plains and Plateau (below 500-600) meters. The soils vary from deep medium black alluvial of the river tracts and further to poor gray soils in the east. The region is drained by Bhima River and its tributaries Nira, Man, Sina, Bhogavati etc. The Bhima River on Ujjani irrigation project is a major irrigation project in solapur district. The district has a total area of 14886 Kms^{2} and population of 4317756 persons as per 2011 census which constitute purposes; the district is divided into eleven tehsils (Fig.No.1) e.g. North Solapur, Barshi Akkalkot, South Solapur, Mohol Managalwedha, Pandharpur, Sangola,

Malshiras, Karmala and Madna. The Solapur district is located in Southern Maharashtra. Its latitudinal extent is from 17° 10′ north to 18° 32′ north and longitudinal is 74° 42′ east to 76° 15′ east. The average annual rainfall in the district is 584.3 mm. The region has predominantly a drought prone area of South Maharashtra.

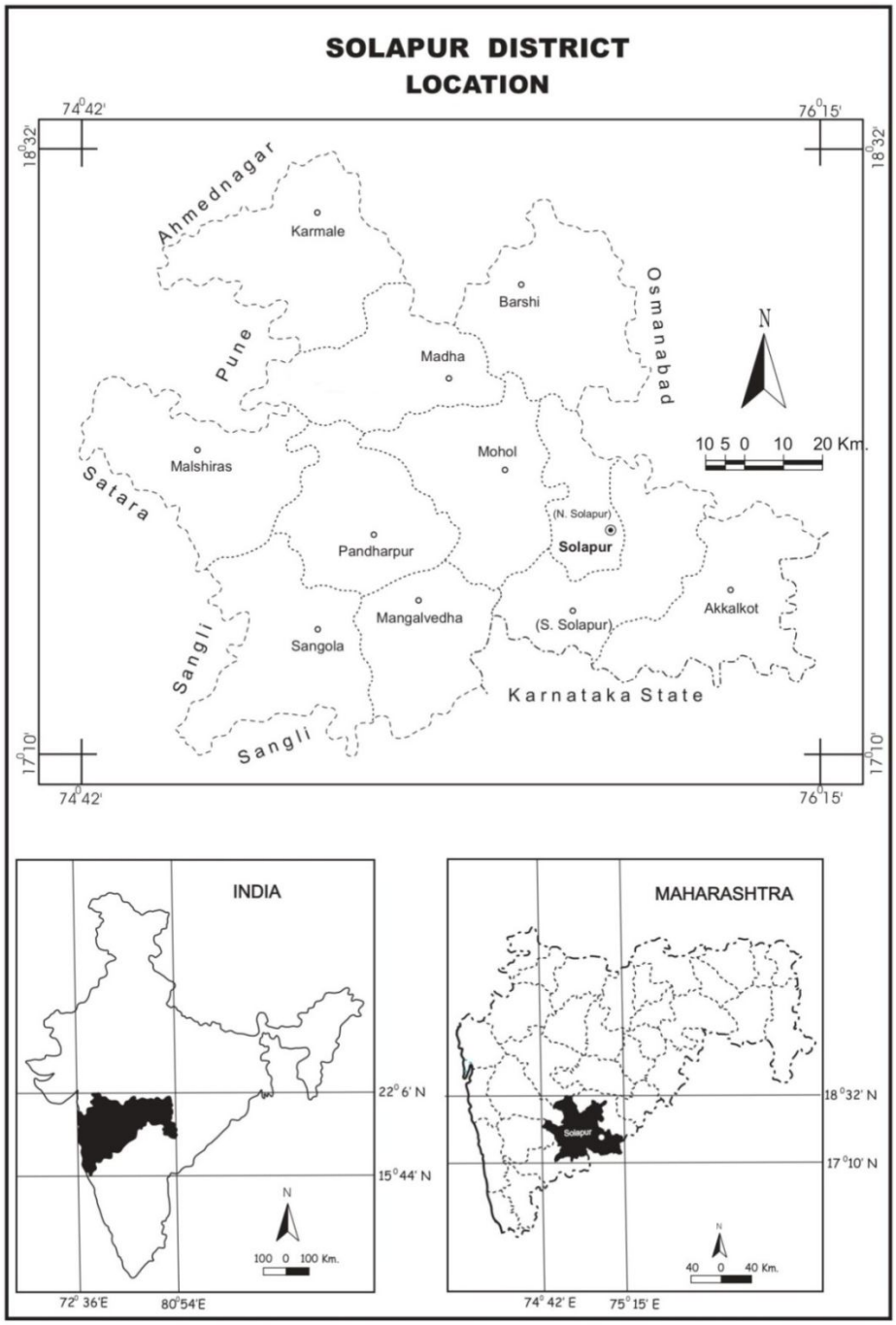

Fig. 1.1

POPULATION SIZE AND DISTRIBUTION:

The growth of population in any area is an index of its economic development, social awaking, and many other characteristics (chanda and sindhu 1980).The growth of population is one of the significant factors associated with mans occupancy, in other words, it flows in size from time to time and people migrate temporarily or permanently both within the administrative bounders and across them (Bajaj, 1965).The growth of population in any area is determined three basic factors namely human fertility, human mortality and human mobility. The difference between human fertility called as a natural increase population.

The growth of population means any change in population number, further it refers to the growth of human population in a particular area during specific period of time, if this change is in negative direction then population decreases and if it is in positive direction then the population increases. This truly designates that population growth does not necessarily always indicate an increase. The growth of population is resultant feature of the natural increase and the net immigration over a certain period of time in a particular region. The growth of population in any region, whether it is positive or negative, reflects the history of mans response to the environmental possibilities present in the region (Sharma 1978) Apart from that the growth of population is as factor associated with mans occupation, cultural background, historical events and political ideology (sing and chaturvedi 1983).The population growth is the most deep-seated demographic process and all other demographic features are allied with it either directly or indirectly. Geographically study of population growth of a region, therefore, is of a vital importance for understanding its dynamics as well as planning at the local and regional level. The population of the district is 385583 persons (2001) and the decadal growth rate of population has been about 19.32 per cent. The growth rates of population of the district during last six decadal are somewhat low as compared of the growth rate of population of state.

Table No.1: Solapur District; population and decadal variation (1941-51 to 2001-2011)

Year	Population	Decadal variation	Rate of variation in percent
1941-51	1505316	+277231	+22.57
1951-61	1860119	+354803	+23.57
1961-71	2253840	+393721	+21.17
1971-81	2610144	+356304	+15.17
1981-91	3224034	+613890	+23.21
1991-2001	3855383	+631349	+19.32
2001-2011	**4317756**	+462373	+11.99

Source: I) Solapur District census Handbook analysis
II) Census of India 2011 series-28(provisional Maharashtra)

The analysis of table No.1 reveals that the decadal growth rate of population from 1951 to 1971 which is moreover constant But is has decreased in the decade of 1971-81 because in this decade most of the population has badly suffered from severe drought of 1972-73. Due to inadequacy of food, fodder and even water the people migrated along with live stock to nearby regions. But further population growth rate has again increased in the decade 1981-91 by 23.5 percent. It is less than that of state 16.99 percent which has again decreased in 2011 by 11.99. Tehsil level growth rate also various (Table No. 2) Malshiras, Mangalwedha, South Solapur and Sangola etc tehsils are having high growth rate These are the tehsils in which big urban centers like Akluj, Mangalwedha and South Solapur by contrast tehsils like Akkalkot, Barshi, Pandharpur and North Solapur and Madha have low growth rate.

Table No. 2 : Solapur District – Tehsil wise population growth rate in per cent During 2001-2011

Sr. No.	Tehsils	Population		Growth rate in percent
		2001	2011	
1.	Malshiras	4,30,191	4,85,645	12.89
2.	Pandharpur	4,02,688	4,42,368	9.85
3.	North Solapur	9,61,330	10,57,352	9.98
4.	Sangola	2,71,670	3,22,845	18.83
5.	Mangalwedha	1,71,005	2,05,932	20.42
6.	South Solapur	2,10,762	2,60,897	23.78
7.	Mohol	2,51,541	2,76,920	10.08
8.	Madha	2,92,152	3,24,027	10.91
9.	Karmala	2,33,069	2,54,489	9.19
10.	Akkalkot	2,90,024	3,14,570	8.46
11.	Barshi	3,40,951	3,72.711	9.31
District Total		38,55,383	43,17,756	12.25

Source – 1) Census of India 2001 Series -28 (Maharashtra Provisional)
2) Solapur district Handbook 2011

These are the tehsils that were pre- ponderances of rural population is high- Agriculture in these tehsils is of subsistence nature.

SPATIAL DISTRIBUTION (DENSITY) OF POPULATION:

The analysis of the patterns of population is fundamental to understanding of geography of Population area. Because it is the pattern of population are intimately related. The land and people constitute the two significant elements of an area, and therefore the ratio between these two fundamental interest to all scholars concerned with population analysis (Demko, 1970).Geographers goal is to understand the regional deference's of people on the earth's surface, which varies from one locality to another and from region to region. It has, thus been considered as simple but extremely useful measure of population-resource relationship. One of the important indices of population concentration is the density of population. The analysis of population distribution and density holds immense significance for geographers, as its successful understanding holds the key to the analysis of entire demographic character of an area (chandana 2001).The concept of population density is relating numbers of people to the space occupied by them. It is one of the most intriguing and most hazardous correlations employed by geographers, which was initially used by Henry Drury Harness in 1937.Apart from these major physical, socio-cultural and demographic factors influencing the distribution and density of population, some physical and social disasters have also been mentioned as factors temporarily altering the population of affecting areas, Earthquake, landslide, volcanic eruption, flood, severe drought, glacial advancement, storm, epidemic and fire constitute the physical disasters. War, genocide, forced transfer and repatriation constitutes the social disasters. The pattern of population distribution and density in an area is the product of the inter-play between the physical milieu and the society through the matrix of time (Zelinsky,1966).He also remarks that, "In order to understand the meaning lying behind the contemporary patterns of population, one must encyclopedic knowledge of the areas physical settings, the minutes of its economic behviour, the broader lineaments of its socio-cultural structure and virtually all aspect of its human geography".

As far the study region is concerned various factors which attribute to distributional patterns include physiography, amount of rainfall, productivity of soil, availability of surface and understand water, agricultural and industrial development, degree of urbanization and historical background of the places.

Thus the density and distributional pattern of population is the product of natural, social, cultural, economic, historical, and environmental. In the study, find out the density zones have been determined for the study region. The average density of population in the region is 290 per sq km which is less than the state average of 365 per sq km. The Population density zones have been demarcated for the study region. **High Population density** zone having of above 300 per Sq.km observed in the North Solapur, Pandharpur and Malshiras, North Solapur is having highest density of population in the region, because the district headquarter falls in tehsils. Pandharpur and Malshiras tehsils are facilities by well developed canal Irrigation system. The **Moderate density zone** having more than 200 to 300 persons per sq km Area of Barshi, Akkalkot, Madha, South Solapur, Mohol and Sangola etc tehsils of Solapur district due to these tehsils have fertile soil; comparatively more rainfall has caused by the Moderate density of population. Fig No 2**. Low density zone less** than 200 person per sq.km area of Mangalwedha and Karmala tehsils, due to these tehsils are receiving very Scanty and erratic Rainfall, limited irrigation facilities caused low density of population.

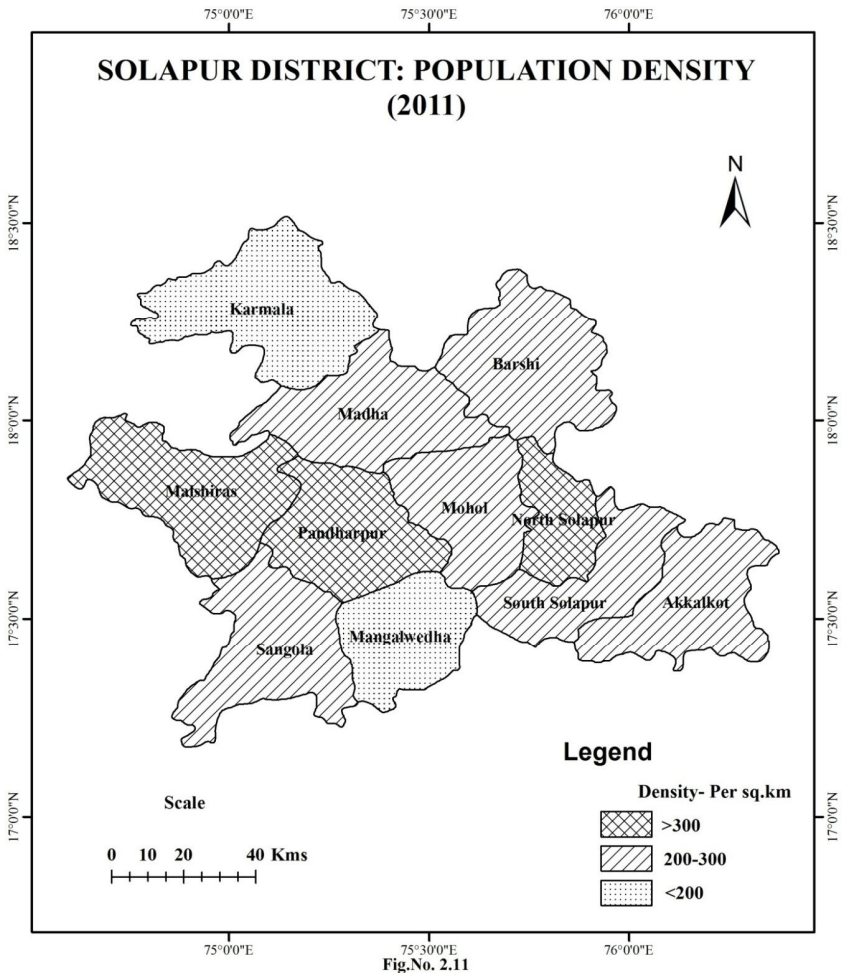

Fig.No. 2.11

Table No.3: Solapur District – Tehsil wise Distribution of population (2011)

Sr. No.	Tehsils	Area in Km²	Population	Density Km²
1	North Solapur	683	1057352	1548
2	Pandharpur	1294	442368	342
3	Malshiras	1608	485645	302
4	Barshi	1522	372711	245
5	Akkalkot	1401	314570	224
6	Madha	1526	324027	212
7	South Solapur	1195	260897	218
8	Mohol	1317	276920,	210
9	Sangola	1594	322845	202
10	Mangalwedha	1142	205932	180
11	Karmala	1596	254489	159
	District	14880	4317756	290
	Maharashtra	307583	9,67,52,247	365

Source: Census of India 2011 Series 28 Maharashtra Population 2011. Director of a census of Operations Maharashtra, Mumbai

CONCLUSION:

The decadal growth rate of population from 1951 to 1971 which is moreover constant But is has decreased in the decade of 1971-81 because in this decade most of the population has badly suffered from severe drought of 1972-73. Due to inadequacy of food, fodder and even water the people migrated along with live stock to nearby regions. But further population growth rate has again increased in the decade 1981-91 by 23.5 percent. It is less than that of state 16.99 percent which has again decreased in 2011 by 11.99. Tehsil level growth rate also various (Table No. 2) Malshiras, Mangalwedha, South Solapur and Sangola etc tehsils are having high growth rate These are the tehsils in which big urban centers like Akluj, Mangalwedha and South Solapur by contrast tehsils like Akkalkot, Barshi, Pandharpur and North Solapur and Madha have low growth rate.

High Population density zone having of Above 300 per Sq.km observed in the North Solapur, Pandharpur and Malshiras, North Solapur is having highest density of population in the region, because the district headquarter falls

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