

DEMOGRAPHIC CHARACTERISTICS OF SHIRUR CIRCLE OF SHIRUR TEHSIL OF PUNE, MAHARASHTRA

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ABSTRACT

Demographic characteristics like population growth, density, sex ratio, literacy etc. determine the qualitative and quantitative characteristics of population. In the present work an attempt has been made to analyze the variations in the demographic characteristics of Shirur Circle of Shirur Tahsil, Pune District of Maharashtra over three census years – 1991, 2001 and 2011. Statistical data on various demographic characteristics like Male/female percentage of population, sex-ratio, child sex ratio, distribution of Schedule Tribes (ST) and Schedule Caste (SC) population and literacy level for each of the 23 villages falling under Shirur circle has been studied over three census years and the change in the parameters were analyzed. ArcGIS software was

applied to prepare the base map and thematic maps. In general it was observed that the study region has a declining sex ratio (greater proportion of male over female, declining CSR and general sex ratio) which is a matter of concern. The literacy percentage of the study area is however increasing at the rate of almost 9% per census year which is a silver lining for the study area.

KEYWORDS: Shirur, Ranjangaon MIDC, SC/ST Population, Child sex ratio.

INTRODUCTION

Population of a region is considered to be a resource. Man, who is a powerful geographical factor on the earth's surface not only determines the economic pattern of resource utilization but also he is a very dynamic and important resource for society (**Mahajan, 2012**). Demographic characteristics like population growth, density, sex ratio, literacy etc. determine the qualitative and quantitative characteristics of population.

Population distribution is the geographical arrangement of the population within the physical space of the State boundaries. The major factors that determine the pattern of population distribution are: (1) geographical factors, such as climate, terrain, soils and natural resources; (2) economic, social and political factors, such as the type of economic activity and the form of social organization; and (3) demographic factors, such as the different growth rates that exist between areas as a result of differences in births, deaths and migration rates (**Mule, 2011**). In the present work an attempt has been made to analyze the variations in the demographic characteristics of Shirur Circle of Shirur Tahsil, Pune District of Maharashtra over three census years – 1991, 2001 and 2011. Male/female percentage of population, sex-ratio, distribution of Schedule Tribes (ST) and Schedule Caste (SC) population and literacy level for each of the 23 villages falling under Shirur circle has been studied and analyzed in detail.

Study Area

Shirur circle of Shirur Tehsil of Pune District is selected for the present research work. It has 260.14 km² of geographical area. This circle has 23 villages and one urban center i. e. Shirur Municipal Corporation. It lies between latitude 18° 41' to 18° 51' N and 74° 06' to 74° 23' E longitude. The total population of this circle was 1, 00,836- as per census of 2011. Shirur is the administrative headquarter of Shirur Tahsil and it is only 67 km from Pune, 55 km from Ahmednagar and is well-connected by Major State Highway (MSH) 5.

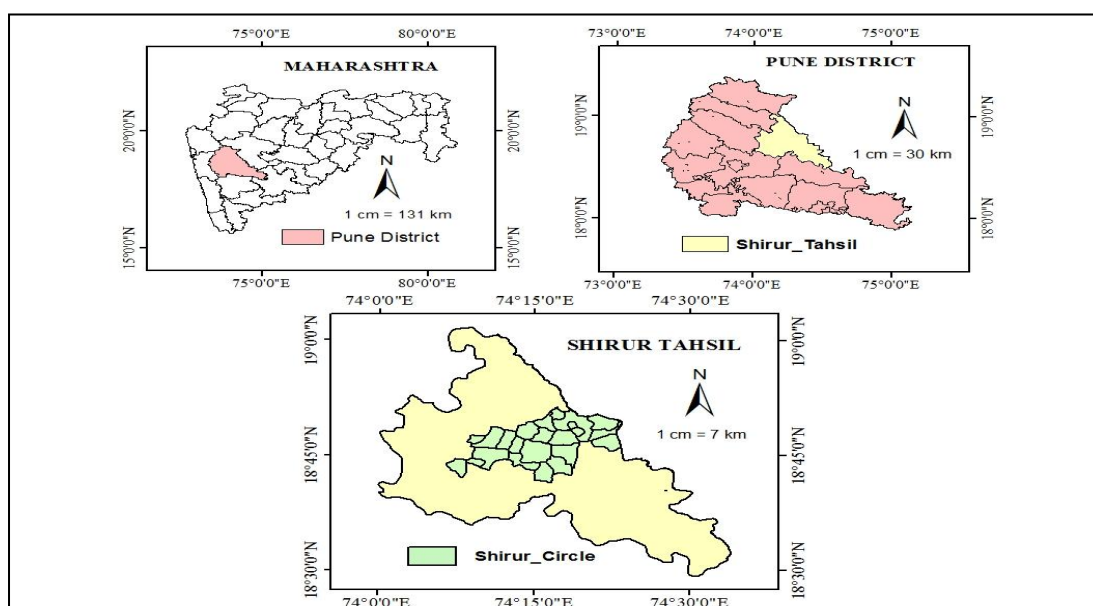


Fig 1: Study area

The study area has hot, dry climate and is a rain shadow area. It is drained by river Ghod. A rich alluvial soil is deposited on the banks of the river Ghod. Such soils are more suitable for the agricultural purpose. Chaskaman left bank canal is a major source of irrigation for some of the villages of this circle. Agriculture is the main economic activity with Jowar and wheat being the chief food crops and sugarcane as a cash crop.

OBJECTIVES

1. Study the demographic characteristics of the study area during the census year of 1991, 2001 and 2011.
2. Analyze the change if any in the demographic characteristics of the study area for the study period.

DISCUSSION

a) Male/Female distribution of population

The percentage of male population to total population and percentage of female population to total population was studied in the present work. Considerable change in the nature of male/female percentage of population is observed in the study area during the study period. Although in 1991, there was almost an equal proportion of male and female population to total population (49% - 50%) but in 2001 this ratio became more favorable towards male population with 51.49%. In the next decade the problem became more severe with the male population being 52.12%. Thus it is evident that with every passing decade and improvement of technology, the female population is going on declining which is a matter of concern for the study area. Table 1 shows the decadal change in the male and female percentage of population of the study area. In 1991, the highest male % was observed in Saradwadi village (51.64%) while Karanjawane had the highest female percentage at 52.33%. In 2001, the highest male % was observed in Karegaon village (55.30%) while Burunjwadi had the highest female percentage at 51.03%. In 2011, the highest male % was observed in Ranjangaon village (59.93%) while Jategaon Bk had the highest female percentage at 50.30%. The reason of very high male percentage in Ranjangaon is due to selective immigration of males owing to its flourishing industrial zone and religious importance of the place (Ranjangaon Ganpati is an important pilgrimage area for the Hindus).

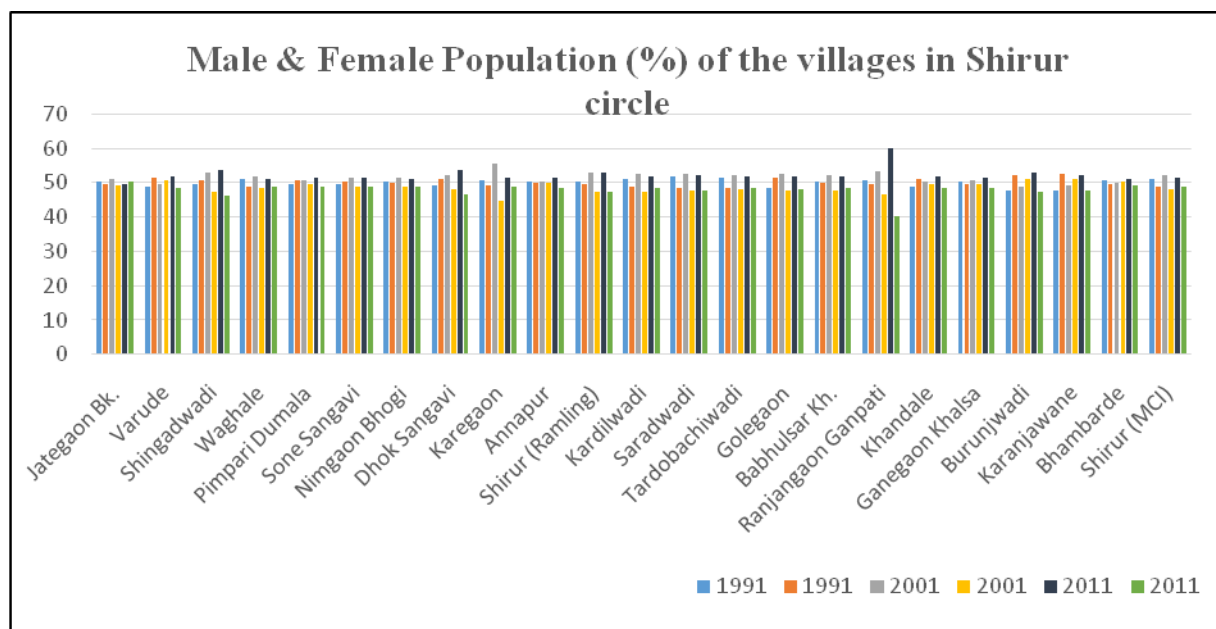


Fig 2: Male and Female population of Shirur circle over three census years.

b) Density

Population density is a simple concept of relating population size to the land area with a view to assessing crudely the pressure of population upon the resources of the area (**Chandana, 2000**). The concept of density of population is an useful tool in the analysis of the diversity of man's distribution in space (**Clarke, 1972**). The density of Shirur circle has been increasing since 1991. It was 206 persons /km² in 1991 which reached to 399 persons/km² in 2011. During the span of two decades, the density of Shirur circle increased by 46.67percent and 37.45 percent during 1991 to 2001 and 2001 to 2011 (Fig 3, 4 and 5). Throughout the study period Shirur Municipal Council has maintained highest population density while Babhulsar Kh recorded the lowest density.

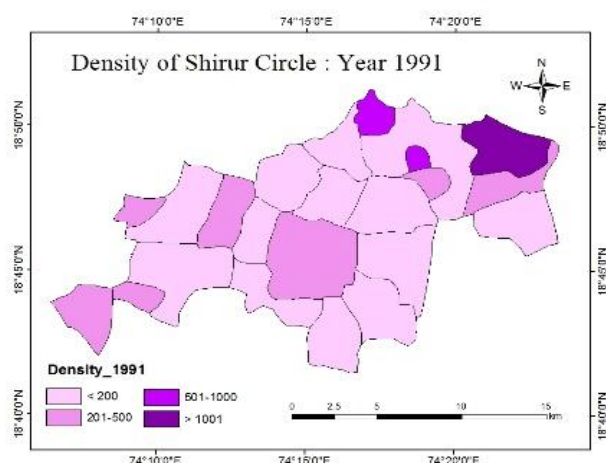


Fig 3: Population density of Shirur circle: Year 1991.

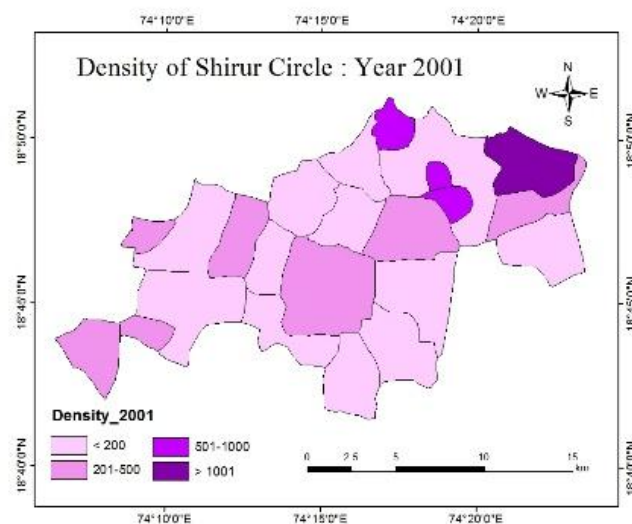


Fig 4: Population density of Shirur circle: Year 2001.

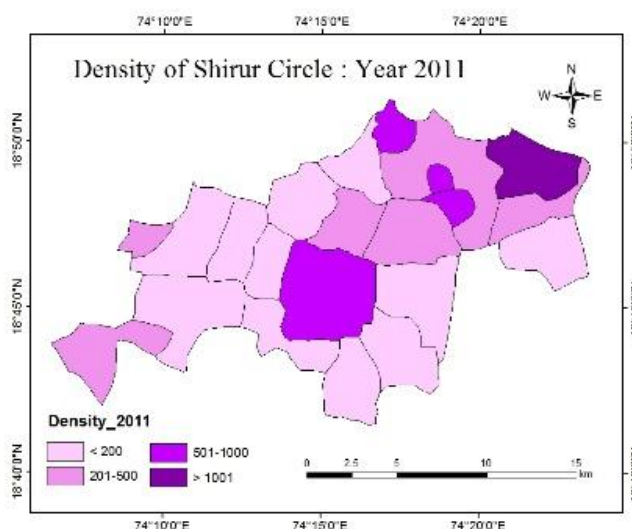


Fig 5: Population density of Shirur circle: Year 2011.

In Shirur Circle, Shirur Municipal Council had the highest population density because it is the administrative headquarter of Shirur tahsil and thus is an urban area. In 1991, Shirur Municipal Council registered density of 2789 persons/ km² followed by Annapur village (500 persons per sq km). Babhulsar Kh recorded the lowest density at 74 persons /km². In 2001 the density of Shirur Municipal Council was 4091 persons/ km² followed by Kardilwadi at 602 persons/ km² pushing Annapur to a close third at 589 persons/ km². Babhulsar Kh recorded the lowest density at 84 persons /km². In 2011 Shirur Municipal Council had 5623 persons/ km² which was followed by Kardilwadi at 860 persons/ km² while Annapur maintained its third position at 720 persons/ km². Babhulsar Kh recorded the lowest density at 110 persons /km².

c) Sex Ratio

The sex ratio of a society is a considerable dominating factor of the socio-economic development of a society. No particular village enjoys an absolute majority throughout the study period. Saradwadi had the least sex ratio at 936.41 in 1991, Karegaon had the least sex ratio at 808.25 in 2001 and Ranjangaon had only 668 in 2011 as is evident in Fig 6, 7 and 8. Being an industrial and pilgrimage area Ranjangaon attracted male migrants which resulted in very low sex ratio in 2011. The affinity towards male child and the erstwhile mushrooming of various abortion centers has resulted in low sex ratio in the census year of 2001. Karanjawane had the highest at 1097.79 (1991), while Burunjwadi had 1042.38 in 2001 and Jategaon Bk had 1012.27 in 2011.

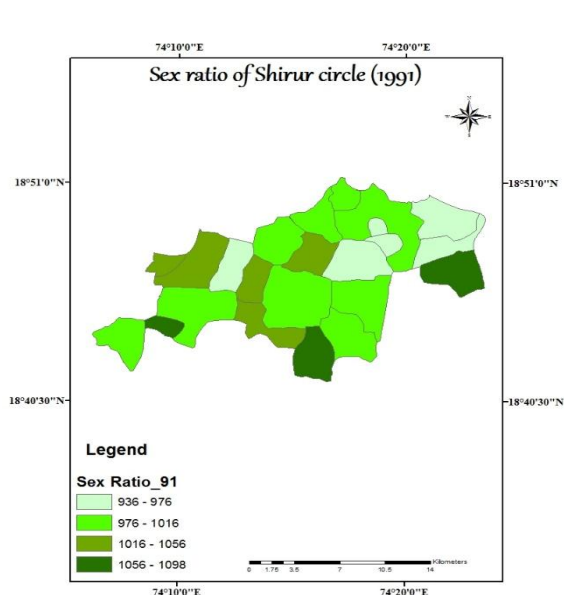


Fig 6: Sex ratio of Shirur circle (1991)

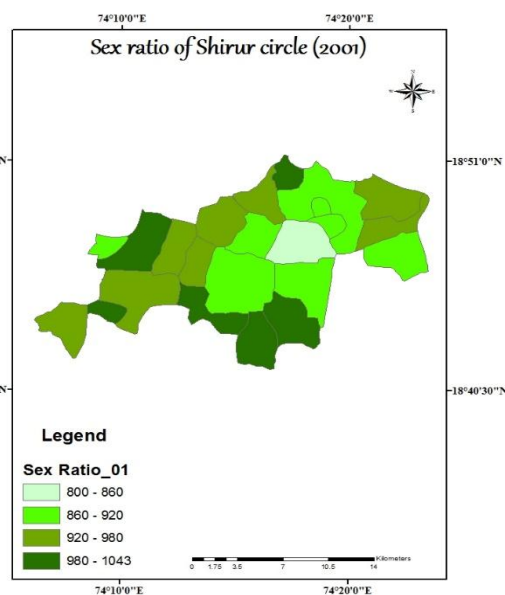


Fig 7: Sex ratio of Shirur circle (2001)

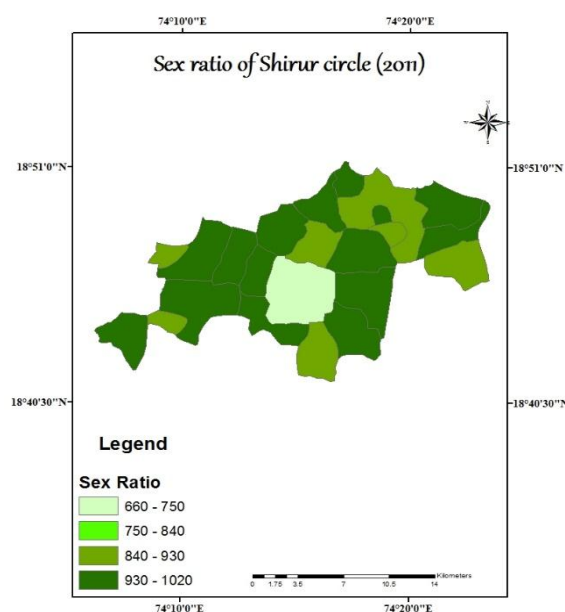


Fig 8: Sex ratio of Shirur circle (2011).

d) Schedule Caste (SC)/Schedule Tribe (ST) population in the study area

The distribution of the SC population is mainly in the eastern part of the study area as is evident from Fig 9, 10 and 11. The proportion of SC population was more than ST population. The percentage of SC population to total population was 5.60 % in 1991 which increased slightly to 5.09 % in 2001 & considerably in 2011 at 6.68 %. In 1991 and 2001, the highest proportion of SC population was found in Shirur at 13.11% and 12.86% respectively. Shirur being an urbanized area had more employment opportunities, which resulted in immigration resulting in high SC population. However by the next decade (2011), the largest SC concentration was in Karegaon (14.24%) as is evident from Fig 7. Karegaon is located in the fringe area of Ranjangaon (Ranjangaon has developed into a major industrial region after 2001 and is a major pilgrimage area) and the workers and immigrants prefer to stay at Karegaon. The lowest SC population was obtained in Burunjwadi (0.51%), Shingadwadi at 0% and 0.45 % respectively for the census years of 1991, 2001 and 2011.

The major tribes found in the study area are Katkri, Bhil, Thakar and Mahadev koli. The ST population of the study area is quite low. In 1991 the average percentage of ST to total population stood at a meagre 1.91% which increased slightly to 2.07% and 2.86 % in 2001 and 2011 respectively. As is evident from Fig 12, Tardobachiwadi had the highest percentage of ST population in 1991, followed by Waghale in both the census years of 2001 and 2011 at

12.41% and 14.06 % respectively. Villages like Varude, Shingadwadietc recorded NIL ST population during the entire span of the study period.

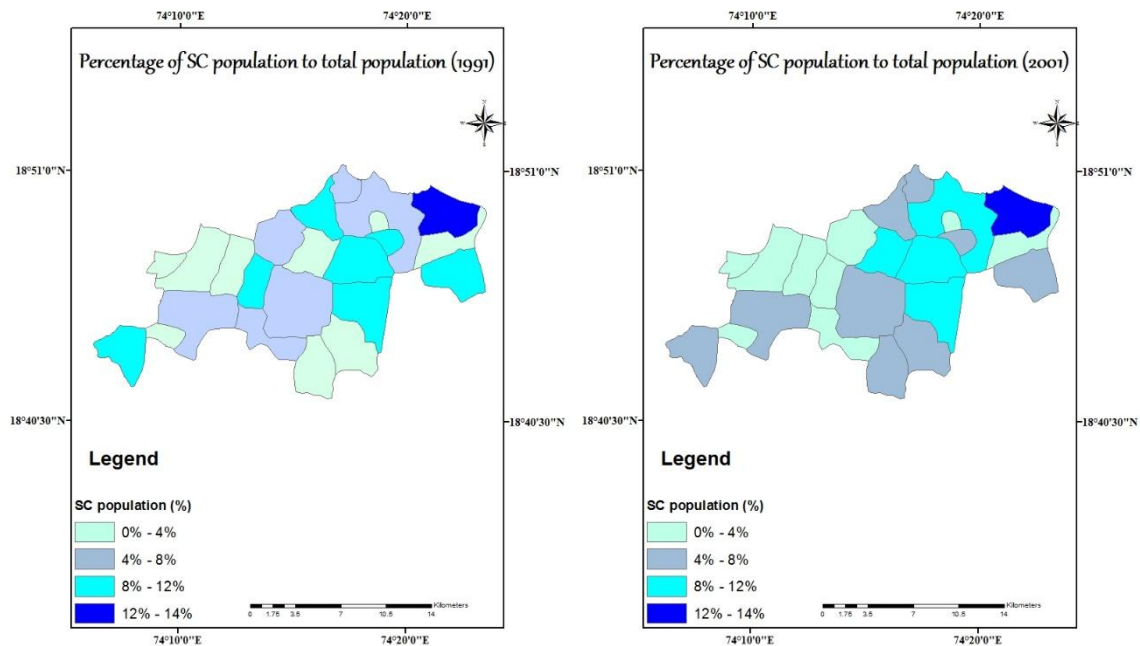


Fig 9: Percentage of SC population (1991) Fig 10: Percentage of SC population (2001).

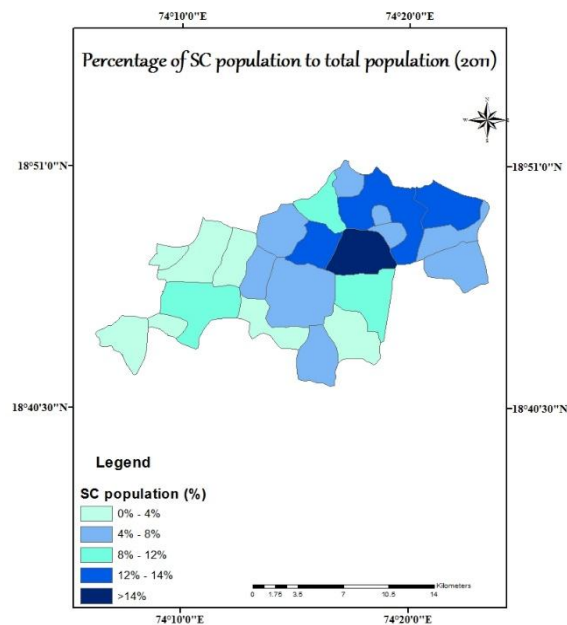


Fig 11: Percentage of SC population (2011).

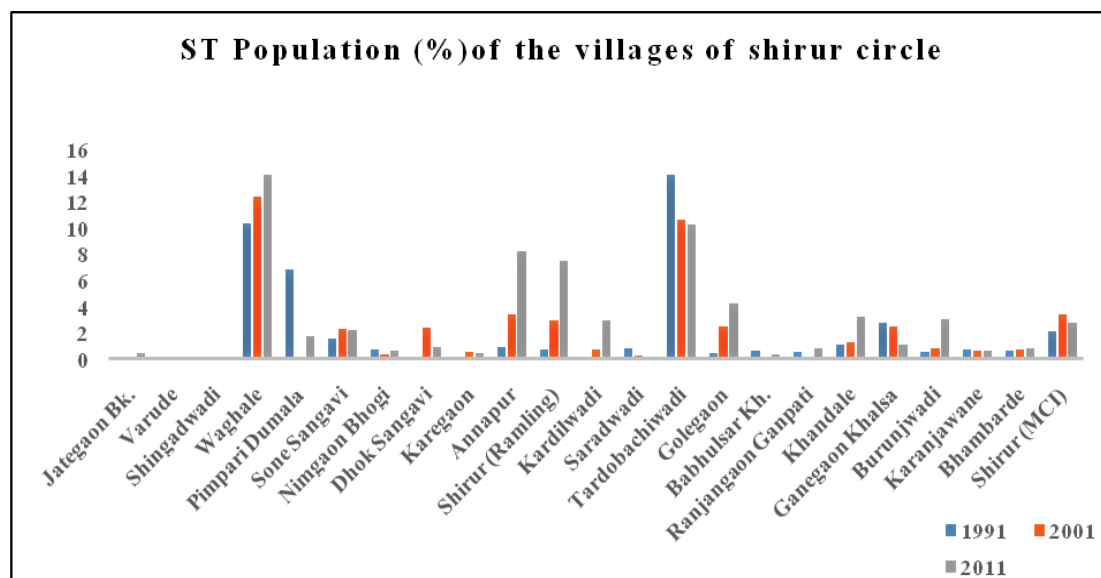


Fig 12: Percentage of ST population in Shirur circle.

e) Literacy

United Nation has defined literacy as “the ability of a person to read and write with understanding a short simple statement on his everyday life” (*Bhende and Kanitkar, 1978*). Education is the key that opens the door in life which is essentially social in character (*Mukharjee and Verma 1987*). It is essential for poverty reduction, mortality, curbing population growth, achieving gender equality and ensuring sustainable development, peace and democracy (*Godase, 2014*). Literacy is calculated by calculating the ratio of total literate population and total population of a place which is expressed in percentage.

Table no. 1 shows the village-wise literacy rate during the last three decades. The quality of education, social development, wealth of a region can be understood by understanding the literacy ratio (*Wagh, 2013*). Shirurcircle’s average literacy was 45.55%, 62.30% and 71.34% in 1991, 2001 and 2011 respectively. Thus there is a healthy increase in literacy level during each of the decade. Shirur had the highest literacy both during 1991 and 2001 as is evident from Table 1. However during 2011 Ranjangaon surpassed all the other villages in literacy rate owing to its development into an industrialized area. Shingadwadi, which is a backward region has maintained least literacy level in all the three census decades.

Table No 1: Percentage of literacy in Shirur circle.

Villages	Percentage of Literacy		
	1991	2001	2011
Jategaon Bk.	47.86756	62.20615	74.05813
Varude	39.34837	60.26686	68.27393
Shingadwadi	22.68371	46.90722	54.34584
Waghale	43.51733	59.44475	68.59308
PimpariDumala	42.08543	62.3962	70.59406
SoneSangavi	38.75817	56.82314	65.0655
NimgaonBhogi	39.39635	65.69978	69.78723
DhokSangavi	29.92519	56.66868	72.31336
Karegaon	49.9422	64.84576	75.46129
Annapur	45.63703	63.64903	69.82366
Shirur (Ramling)	36.39255	65.4774	73.29221
Kardilwadi	53.54239	54.45804	62.4235
Saradwadi	55.52239	69.75309	76.47577
Tardobachiwadi	46.24384	62.63684	72.09302
Golegaon	47.782	63.13108	77.85205
BabhulsarKh.	45.48467	61.49341	68.6942
RanjangaonGanpati	54.30974	65.80765	79.31034
Khandale	47.94953	63.83543	72.20098
GanegaonKhalsa	46.25731	63.99254	75.80576
Burunjwadi	51.07472	68.49057	76.18243
Karanjawane	48.26001	63.40956	70.16992
Bhambarde	51.25926	60.55215	73.54015
Shirur	64.58446	71.15819	74.33106

(Source: Population Census of Pune District 1991, 2001 and 2011 and computed by researcher).

f) Child sex ratio

Child sex ratio is the sex ratio of children from 0 to 05 years of age. A negative trend in the CSR is witnessed over the years. The average child sex ratio is 934.16 for the study area during 1991 which declined to 904.44 in 2001 and further declined to 827.53 in 2011. The detailed CSR is given in Fig 13. This is a matter of concern since CSR is related to general sex ratio. The effect of CSR is clearly visible in the general sex ratio which also shows a negative trend.

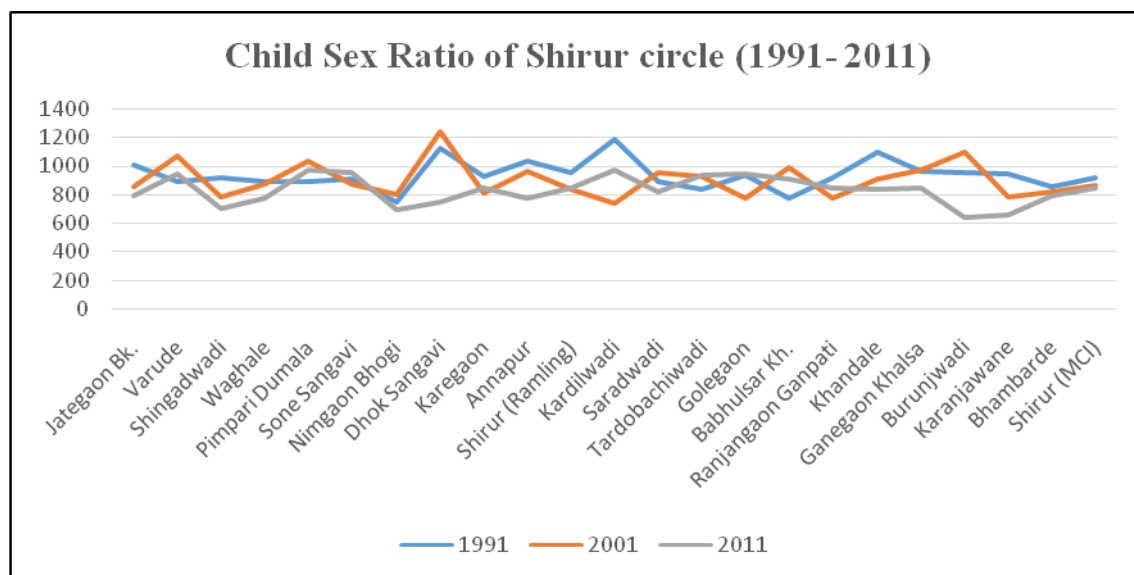


Fig 13: Child sex ratio of Shirur circle.

CONCLUSION

In the present work an attempt has been made to analyze the variations in the demographic characteristics of Shirur Circle of Shirur Tahsil, Pune District of Maharashtra over three census years – 1991, 2001 and 2011.

In general a decline in the female to male ratio is observed both while calculating the male and female percentage of population and also the sex ratio of the study area for the period of study.

Although in 1991, there was almost an equal proportion of male and female population to total population (49% - 50% for both) but in 2001 this ratio became more favorable towards male population with 51.49% and female percent declining to 48.51%. In the next decade the problem became more severe with the male population being 52.12% while the female population declining further to 47.88%. An alarmingly declining trend in sex ratio is also observed in the study area for the study period with sex ratio dropping from 1001 (1991) to 943 (2001) to 920.80 in 2011. The picture of CSR is also no better since it is declining with every passing decade. The SC population of the study area has maintained an increasing trend with the maximum concentration located in the urbanized area of Shirur during 1991 and 2001 and Ranjangaon during 2011 owing to its emergence as a major industrialized area. There is almost no noteworthy ST population in the study area with certain villages having NIL ST population.

The villages in the study area on an average have recorded an increase of 17% in literacy level during 1991 to 2001 and 9% in literacy level during 2001 to 2011. During 1991 and 2001, Shirur enjoyed absolute majority in literacy level while Ranjanagaon emerged as the leader in 2011 due to selective immigration owing to its industrialized region.

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