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THREE DECADES SEX RATIO IN SATARA DISTRICT OF MAHARASHTRA

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ABSTRACT:

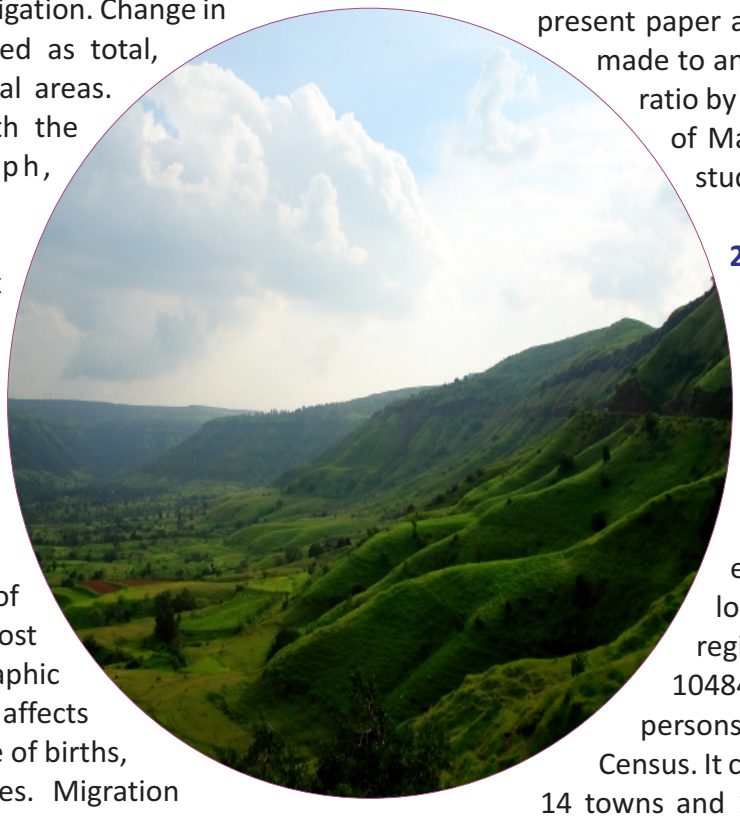
The sex composition of population is the most basic of all demographic characteristics and it affects directly the incidence of births, deaths and marriages. In the present paper an attempt has been made to analyze changes in sex ratio by taking Satara district of Maharashtra as a case study. Period for the study is selected 1901 to 2011. Tehsil is selected as basic unit of investigation. Change in sex ratio of is studied as total, urban as well as rural areas. Anylysis is done with the help of bar graph, choropleth map.

Gatade D. G

KEY WORDS: Sex Composition , Sex Ratio ,Abrupt Change , Demography ,Temporal Change, Decade

1.0 INTRODUCTION:

The sex composition of population is the most basic of all demographic characteristics and it affects directly the incidence of births, deaths and marriages. Migration rates occupational structure and virtually all other population characteristics may be influenced by the ratio between the sexes. According to Trewartha, the study of sex ratios is fundamental to the geographical analysis of an area for they are not only important features of landscape but also influence the other demographic elements significantly and as such provide additional means and materials for analyzing regional landscape (Trewartha, G.T.). In fact sex ratio is an index of socio-economic conditions prevailing in an area and it is a useful tool for regional analysis. (Franklin). In the present paper an attempt has been made to analyze changes in sex ratio by taking Satara district of Maharashtra as a case study.



2.0 STUDY REGION

The Satara district is one of the districts of the Maharashtra state. It extends from 170 05’ north to 190 11’ north latitude and 730 33’ east to 740 54’ east longitude. The study region covers an area of 10484 km2 with 3003741 persons according to 2011 Census. It consists of 11 talukas, 14 towns and 1167 villages as per 2011 census. Physiographically the region may be divided into three units: i) Hills and Ghats ii) Foot hill zone iii) plain area.There are four river

basins in the district. The Krishna drains the major portion to the south, the Yerala drains the mid-east portion also to the south, the Man drains the eastern parts to join the Bhima river outside the district and Nira drains the northern portion of the district. From the point of view of the peninsular drainage, the entire district belongs to the larger drainage system of the Krishna river. The climate of the Satara district is Monsoon type. The study region neither experiences abrupt changes of temperature nor extremes of hot or cold. Administratively study region is divided in to eleven tehsils (Fig.1). The density of population in the year 2011 Census is 287 persons per sq. km. According to 2011 Census the literacy rate of Satara district is 84.20 per cent. The sex ratio for the region is 986 females per 1000 males, which is always higher in the rural areas than that of urban areas.

3.0 OBJECTIVES

The present paper is directed to the following objectives:

1. To highlight the sex composition of the study region in comparison with that of Maharashtra state and India.
2. To analyze study region wise temporal changes in sex ratio during the period of 1901-2011
3. To analyze tehsil wise temporal change in sex ratio during the period of 1981-2011.

4.0 RESEARCH METHODOLOGY EMPLOYED

Present study is taken from the geographical point of view only. The entire study is based on secondary data mainly derived from the government of India especially from Census of India's report of 1981, 1991, 2001 and 2011. Tehsil is taken as a basic unit of investigation study. Period selected for study is 30 years i.e.1981-2011. Tehsil wise, study region wise and India level temporal changes in sex ratio is calculated for 1981-2011 Census data only. Computed data is transformed in to tables and analysis is done with help of maps and graphs. Following specific formulae are used for calculation of sex ratio (No. of females per thousand males)

$$\text{Total Sex Ratio} = \frac{\text{No. of females X 1000}}{\text{No. of males}}$$

$$\text{Rural Sex Ratio} = \frac{\text{No. of Rural Females}}{\text{No. of Rural Males}} \times 1000$$

$$\text{Urban Sex Ratio} = \frac{\text{No. of Urban Females}}{\text{No. of Urban Males}} \times 1000$$


LOCATION MAP
OF
STUDY AREA
INDIA
MAHARASHTRA
SATARA
Khandala
Wai
Mahabaleshwar
Phaltan
Koregaon
Jawali
Satara
Man
Khatav
Patan
Karad
N
0 10 20 30 40Km

Fig. 1

5.0 DECADEWISE CHANGE IN SEX RATIO: COMPARATIVE STUDY (1981-2011)

There are more males than females in India. The number of females per thousand males has been declining from 934 in 1981 to 929 in 1991. The number of females per thousand males has again increased from 933 in 2001 to 940 in 2011.There are more males than females in Maharashtra. The number of females per thousand males has been declining from 937 in 1981, to 934 in 1991, and 922 in 2001 and again the number of females per thousand males increased up to 925 in 2011 (Table 1).

In study region the number of females per thousand males has been continuously declines i.e. 1061 in 1981, 1029 in 1991, 995 in 2001 and 986 in 2011.It is partly due to higher mortality of female children and sizeable maternal mortality. Women are looked upon as an economic and social liability. So they suffer neglect in their infancy, childhood and old age. Insufficiency and in medical aid and cure are common causes of female mortality. It is estimated that 10 per cent of Indian wives die in child birth (Gosal, G.S.). The excess of males over females at the time of birth is true of almost all societies (Gosal, G.S.).It has been recognized that the number of male still births is higher than that of female still births (Clarke, J.I.), because it is a psychological factor almost all the countries of the world that a family is considered complete on the birth of a son (Clarke, J.I.). In the developed countries like the U.S.A., U.K., Netherland etc., whose birth rate is moderate to low, where the nursing facilities and medical aid are available in abundance, where the maternity date is low and where female children are as well as cared for as the male

Table - 1

Sex Composition of India, Maharashtra and Satara

Region	No. of Females per thousand Males			
	1981	1991	2001	2011
India	934	929	933	940
Maharashtra	937	934	922	925
Satara	1061	1029	995	986

Source: Census of India 1981, 1991, 2001, 2011: Primary Census Abstract.

children, male mortality rate is higher than female mortality rates at all ages and more so among the infants (Franklin, S.H.). The exact reverse is true of developing or less developed countries like India. Here a female child is looked down upon as an economic and social liability by the parents while the male child is credited as an assist to the family. Demographically India has not entered the modern industrial age with its complementary characteristics of increasing risk of male lives and reduced risk of female lives (Agarwal, S.N.). What is true of India is equally and even more true of Satara district.

6.0 TEMPORAL CHANGE IN SEX RATIO (1901 - 2011)

The table 2 and Fig. 2 show the decade wise change in sex ratio in Satara district during 1901 - 2011 .The sex ratio of study region was 1031 in 1901 and 988 in 2011. In the hundred and ten years of the period sex ratio in the study region decreased by 43 females per thousand males. The sex ratio in the study region is fluctuated. In the decade 1901 to 1911 the sex ratio decreased by 6 females per thousand males. The sex ratio increased by 5 females per thousand males in the decade 1911 to 1921.There after in the 1921-31 the sex ratio increased by 24 females per thousand males. In the 1931-41 decades sex ratio again increased by 29 females per thousamd males. During 1941- 1951 the sex ratio decreased by 16 females per thousands males. In the next two decades i.e. in 1951-61 and 1961-71 the sex ratio decreased by 4 females and 14 females per thousand males respectively. During 1971-81 sex ratio was increased by 24 females per thousands males.Sex ratio was decreased by 33 females

per thousand males during 1981 -91. In the decade 1991 - 2001, sex ratio again decreased by 34 females per thousand males and in the decade 2001 to 2011 sex ratio was again decreased by 7 females per thousand males.

In the study region the sex ratio is continuously fluctuating high and low, but generally the trend of the sex ratio is decreasing due to many factors viz. educational, economical and social etc. But according to concerning report this condition is not as satisfactory in the study region.

TABLE 2
TEMPORAL CHANGE IN SEX RATIO IN THE SATARA DISTRICT
(1901 - 2011)

Sr. No.	Decades	No. of females per thousand males	Change in Sex Ratio
1	1901	1031	----
2	1911	1025	- 6
3	1921	1030	+5
4	1931	1006	-24
5	1941	1035	+29
6	1951	1051	+16
7	1961	1047	-4
8	1971	1037	-10
9	1981	1061	+24
10	1991	1029	-33
11	2001	995	-34
12	2011	988	-7

Source: 1. Authors (2014)
2. Census of India – 1981, 1991, 2001, 2011District Census Handbook of Satara

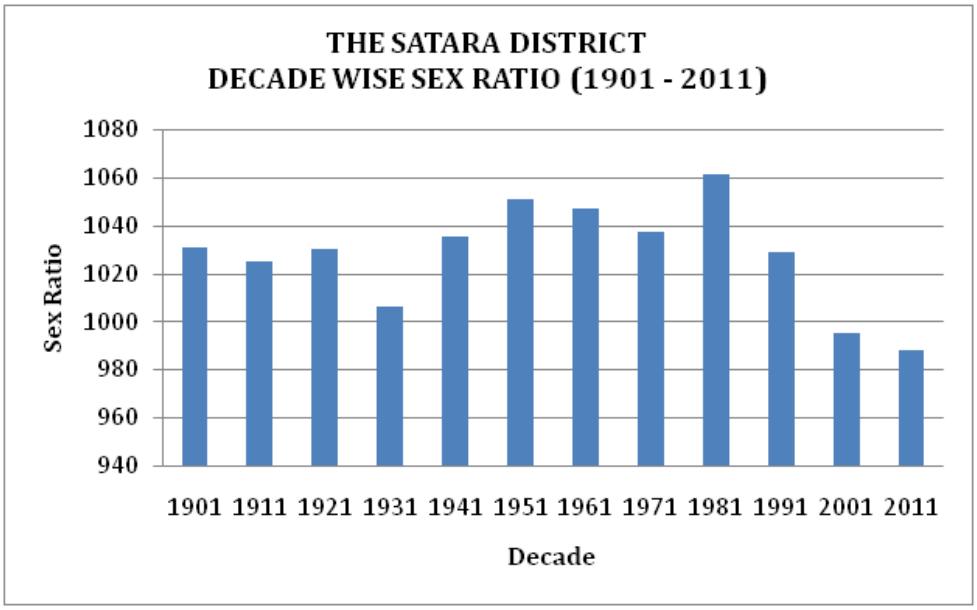


Fig.2

7.0 TEHSILWISE TEMPORAL CHANGE IN SEX RATIO (1981 -2011)

A) Change in Total sex Ratio

In Satara district during 1981-2011 the number of females per thousand males came down from 1061 to 988 (i.e. 73 females). But this change in the region was not uniform. The highest (163) females per 1000 males decreased in Jaoli taluka followed by Khandala (115 females), Patan (112 females), Wai (107 females), Koregaon (100 females) and Khatav (95 females) talukas (Table 3 and Fig. 3) .Sex ratio has declined in these talikas due to out-migration of male population for the sake of employment in Pune and Mumbai cities. During 1981-2011 only in Karad taluka sex ratio has slightly increased from 970 to 972 (by 2 females per 1000 males).

TABLE 3
TEHSIL WISE CHANGE IN SEX RATIO IN THE SATARA DISTRICT (1981 -2011)

Sr. No.	Taluka	Change in Sex Ratio (No of females per/1000 males)		
		Total	**Rural**	**Urban**
1	Satara	- 88	-146	60
2	Wai	-107	-132	6
3	Khandala	-115	-115	NA
4	Koregaon	-100	-123	-13
5	Phaltan	-18	-45	65
6	Man	-63	-67	32
7	Khatav	-95	-95	NA
8	Karad	2	-11	93
9	Patan	-112	-108	NA
10	Jaoli	-163	-161	NA
11	Mahabaleshwar	-3	-28	9
	Satara District	**-73**	**-90**	**43**

Source: 1. Authors (2014)

2. Census of India –1981, 1991, 2001, 2011 District Census Handbook of Satara

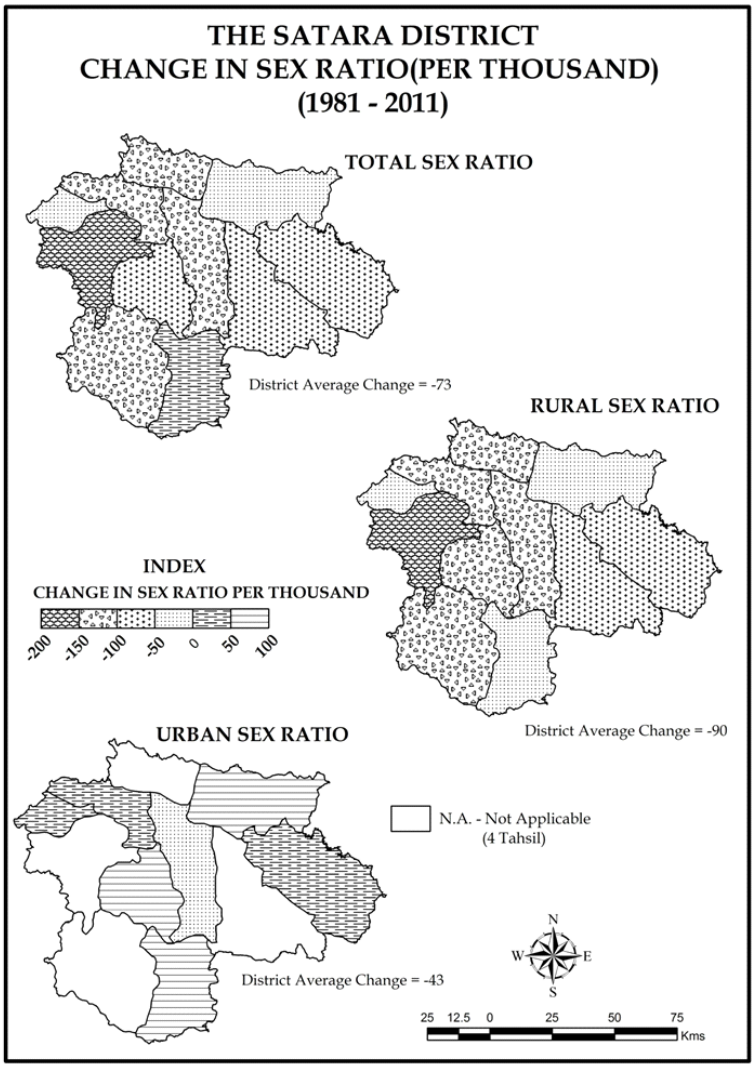


Fig. 3

B) Change in Rural Sex Ratio –

Table 3 and Fig 3 depicts tahsil wise change in rural sex ratio during 1981-2011 in Satara district. Number of females per thousand males in rural area come down from 1085 in 1981 to 995 in 2011 (by 90 females). But this is not uniform in the study region . In all tahsils rural sex ratio has declined. The maximum sex ratio (161 females per 1000 males) has declined in In Jaoli tahsil followed by Satara (146), Wai (132), Koregoan (123), Khandala (115), Patan (108) tahsils.

C) Change in Urban Sex Ratio

Table 3 and Fig 3 reveal that the urban sex ratio of the study region during the period of 30 years i.e. 1981-2011. It is clearly seen that urban sex has increased from 916 females in 1981 to 959 females in 2011 (43 females per 1000 males). Maximum urban sex ratio (95 females per 1000 males)has increased in tahsil followed by Satara (60), Phaltan (65), Man (32),Mahabaleshwar (9) and Wai (6) tehsils. Only in Koregaon tahsil urban sex ratio has declined (by 13 females per 1000 males).

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