

# Assessment of Sex Ratio Variations in Ahmednagar District of Maharashtra in the Decade-2001 to 2011

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**Abstract:** Sex ratio is one of the most fundamental constituents to understand male and female fluctuations in overall total period of time in any particular region with stipulated duration. Sex ratio is an actual crucial indicator to understand males-females figures about to the total population in definite region. Sex ratio is applied to express the numeral of females per 1000 of males. Sex ratio is an appreciated foundation for outcome to the population of women in country of India and also, we can judge the general ratio of women to the men in India. The declining population of women in India is a matter of concern. A close study of the statistics of Ahmednagar district reveals many things about the ratio between different tehsils and cities in study area. The average overall sex ratio of study area according to census data of 2001 is 944 and subsequently in 2011 has been found 939 females per 1000 males it means proportion of females has been declined from census 2001 to 2011. In the district of Ahmednagar sex ratio is decrease in negative manner with -5 in throughout all study area.

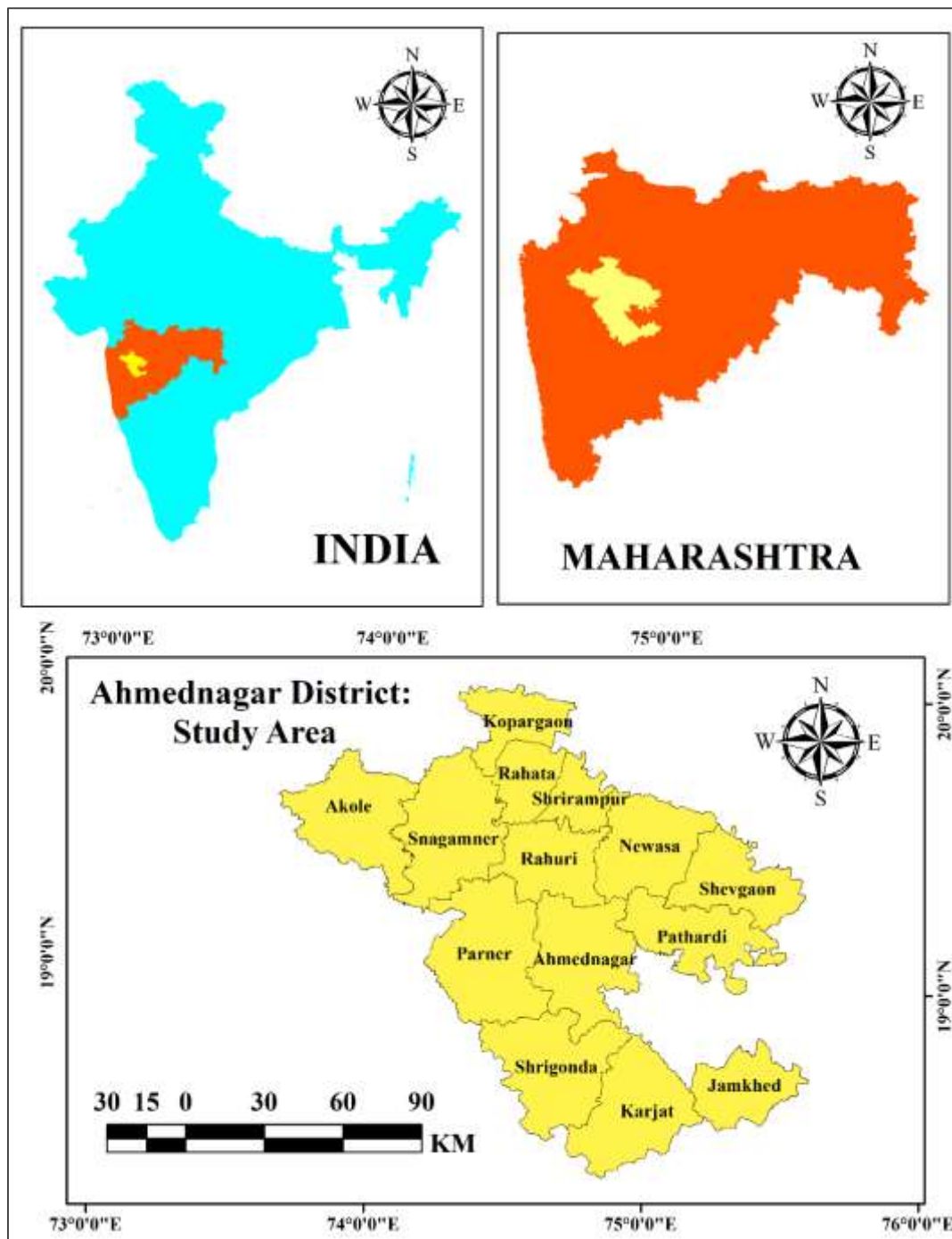
**Keywords:** Sex Ratio, Census of India, Variations and Ahmednagar District.

## Introduction

The ratio of females to the population per thousand males is the sex ratio. The sex ratio is the ratio of females to males in a total population. Although the general ratio of females to males in the world is expected to be 1: 1, the ratio varies from country to country. Based on the sex ratio of females to males, you usually get basic information about the people of that selected region. The declining population of women in India is a matter of concern. According to the 2011 census, there are 940 females for every 1000 males in India. That means the sex ratio is 940. It is a misconception that poor, uneducated, tribal and backward regions are responsible for India's unbalanced sex ratio; However, in the last few years, the sex ratio of the states which are known to be more intensive or developed has been declining day by day.

## Study Area

Ahmednagar district, known as the land of saints, is located in the heart of western Maharashtra. The area of this district which is number one in Maharashtra that is 17195.76 sq. Km. It is 5.66% of the state average geographical area. There is total 14 tehsils in this district. Nashik district and Aurangabad district to the north of Ahmednagar district; East Beed District; Osmanabad district to the east and southeast; Solapur district to the south, Pune district and Thane district to the southwest and west has been situated. The hilly areas to the west and the lowlands to the east are the natural divisions of the district. The highest peak in Maharashtra, Kalsubai is located in the Akole tehsil on the border of Nagar-Nashik district. The peak is 1646 meters above sea level. The climate in the western region is cold and dry, while the climate in the eastern region is hot and dry. Although the average rainfall in the district is 560.40 mm, the distribution of rainfall is uneven. Godavari and Bhima are the leading rivers in the district. Its latitude and longitude extension of Ahmednagar district are between 18° 20' and 19° 59' north latitude and 73° 40' and 75° 43' east longitude (Pathak, 2003).



Map 1: Location Map of Study Areas

**Objectives:**

1. To assess, mapping and visualise the sex ratio changes in Ahmednagar district (during the period of 2001 to 2011).

**Data Source and Methodology**

Present research work is based on the secondary data source. Data has been collected from Census of India for Ahmednagar District, considering the stipulated period between 2001 to 2011 for assessment of sex ratio in Ahmednagar district. To understand the male-female’s relationship of Ahmednagar district in selected period following statistical formula has been adopted to get the result:

$$\text{Gender ratio formula} = (\text{female number} / \text{male number}) \times 1000.$$

Microsoft excel software 2019 has been used for perfect calculation, management and tabularization of data systematically for analysis. ArcGIS 10.2 software was used to analysis and visualization of sex ratio data of census 2001 as well 2011. And prepared a map to understand the tehsil wise sex ratio variations in Ahmednagar district considering in one decade from 2001 to 2011 consequently.

**Assessment of Sex Ratio Variations: Ahmednagar District**

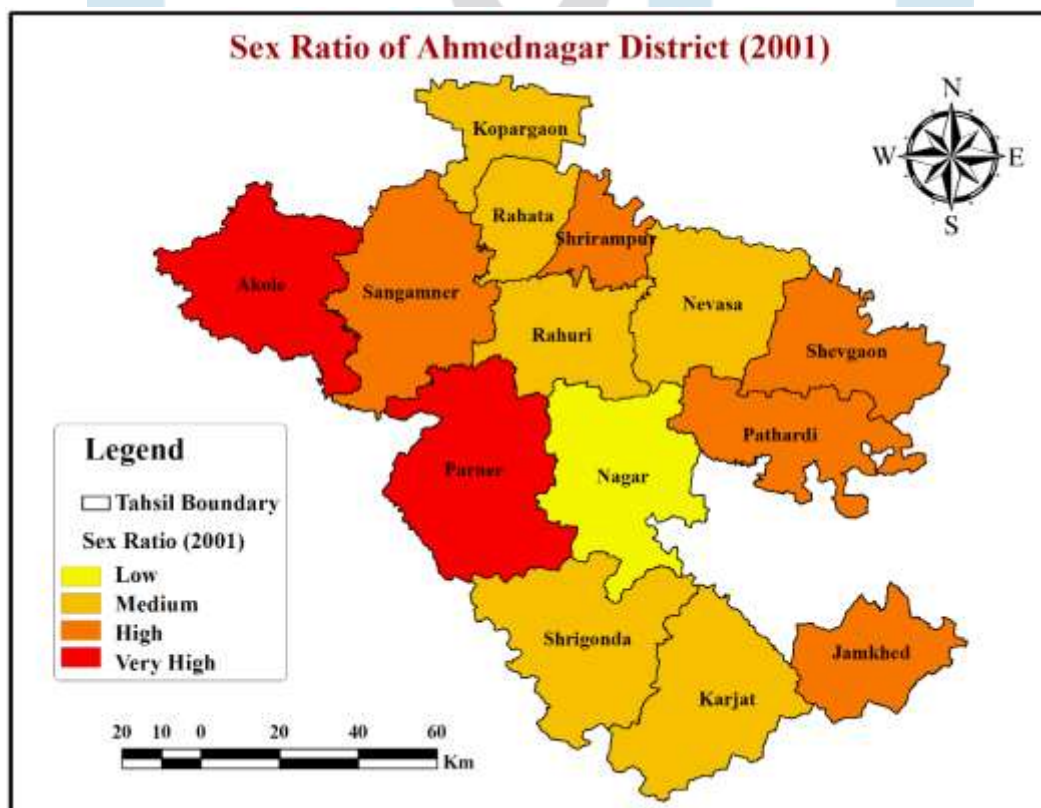
**Sex Ratio**

Sex ratio denotes number of females to per 1000 male. Table 1.1 compiled male and female actual populations and sex ratio of census 2001 and 2011 and is represented in the Map 1.1 and 1.2. The average sex ratio of district is 944.32 (2001) and 939.30 (2011). The according to 2011 census, male and female population of district is 2342825 and 2200334 respectively. The sex ratio of district (944.32) was higher than Maharashtra (922) according 2001 census.

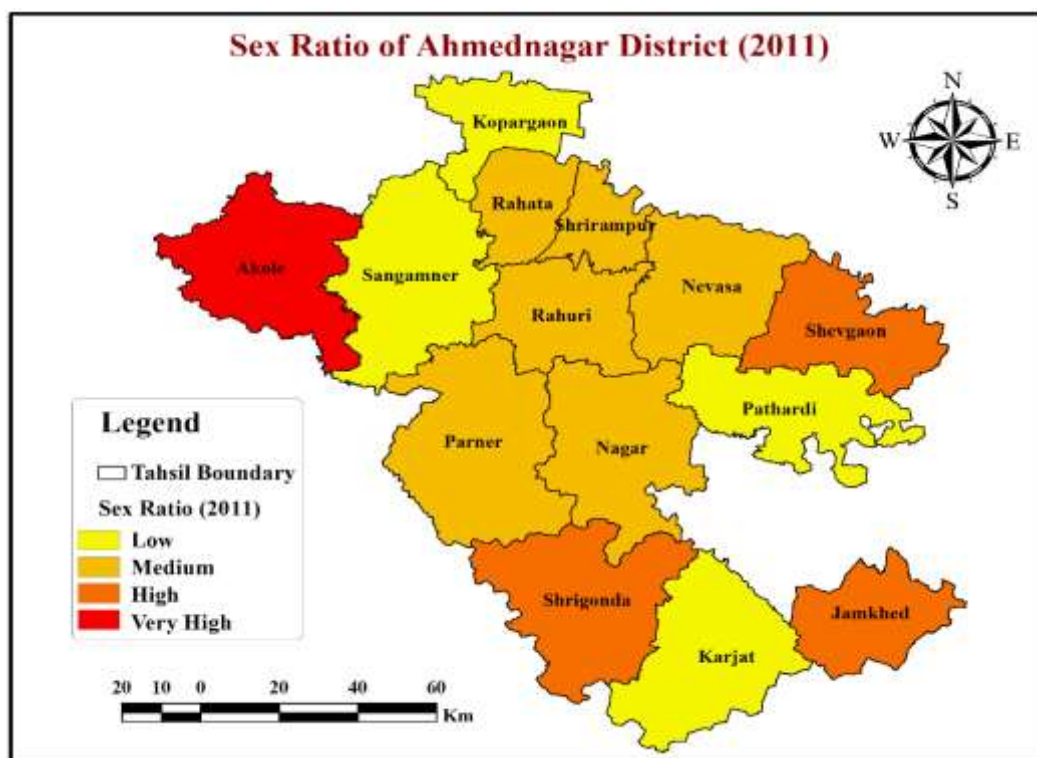
**Table 1.1: Sex Ratio of Ahmednagar District (2001-2011)**

Tahsil Name	Total Male Population		Total Female Population		Total Sex Ratio	
	2001	2011	2001	2011	2001	2011
Akole	135062	147880	131576	144070	974.19	974.24
Sangamner	226952	251096	214487	236843	945.08	920.46
Kopargaon	143650	155738	133520	146714	929.48	913.51
Rahata	148784	165167	139495	155318	937.57	942.06
Shrirampur	131604	146510	124854	140990	948.71	930.71
Nevasa	168624	185001	158074	172828	937.43	934.20
Shevgaon	104299	125837	99377	119877	952.81	954.61
Pathardi	110116	134041	104756	124068	951.32	925.60
Nagar	319120	354297	287570	329747	901.13	940.37
Rahuri	152464	166952	142460	155871	934.38	933.63
Parner	124041	140267	122511	133900	987.67	943.24
Shrigonda	143065	164344	134291	151631	938.67	952.64
Karjat	106420	123225	99254	112567	932.66	922.64
Jamkhed	68852	82470	65364	75910	949.34	962.32
Average Sex Ratio					944.32	939.30

Source: Compiled by researcher based on Census of India, Ahmednagar District. (2001&2011)



Map 1.1: Sex Ratio of Ahmednagar District-2001



**Map 1.2:** Sex Ratio of Ahmednagar District-2011

The assessment of sex ratio was done by grouping statistics into four categories namely low, medium, high and very high sex ratio of both census 2001 and 2011. According to 2001 census sex ratio of Ahmednagar district as follows: low class found in Nagar tahsil (901.13), in medium class Kopargaon (929.48), Rahata (937.56), Rahuri (934.38), Nevasa (937.43), Karjat (932.66), and Shrigonda (938.67), high class covered Sangamner (945.08), Shirampur (948.71), Shevgaon (952.81), Pathardi (951.32) and Jamkhed (949.34) and lastly very high class covered only two tahsils namely Akole (974.19) and Parner (987.67) (Map 2.15).

The presentation of sex ratio in four classes is shown in Map 1.2. 2011 sex ratio of district is as follows: low group tahsils are Kopargaon (913.51), Sangamner (920.46), Pathardi (925.60) and Karjat (922.64), medium group included Rahata (942.06), Shirampur (930.71), Nevasa (934.20), Rahuri (933.63), Parner (943.24), and Nagar (940.37), in the high group observed Shevgaon (954.61), Shrigonda (952.64) and Jamkhed (962.32) and lastly very high group incorporate only Akole (974.24) tahsil. The highest sex ratio has been observed in Akole, 974.19 and 974.24 female per 1000 males as per 2001 and 2011 census respectively (Map 1.1 and 1.2).

### Conclusion

Sex ratio is number of females per thousand of male in total population of any region. The social status of the population is understood from the sex ratio. Equal proportion of female to male population with reference to thousand indicates balanced sex ratio in total population. Decreasing trend of female population in India is matter of concern. According to the 2011 census, sex ratio were 940 females per thousand males which is augmentation by 07 with reference sex ratio of 2001 census i.e. 933 female per thousand male in India. That means the sex ratio is found 940 in India. Tehsil wise assessment of sex ratio of Ahmednagar district in present study reveals that sex ratio is not the same in the decade-2001 to 2011. As per 2001 census, district sex ratio is 944.32 females per thousand male populations whereas sex ratio of district as per 2011 census is 939.30 females per thousand male populations. The study shows that sex ratio in Ahmednagar district has been declined by -5.02, since 2001 census to 2011 census.

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