# LITERACY AND SEX RATIO IN SATARA DISTRICT (MAHARASHTRA)

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## ABSTRACT

*Literacy and sex ratio are two important demographic characteristics of population. Literacy plays a very important role in upliftment of the sex ratio. This paper is an attempt to analyze the correlation between literacy and sex ratio in Satara district. Education is universally recognized as a major component of human development. As such, certain minimum level of literacy seems to be essential for a population to break out the vicious of poverty. Literacy affected on various attributes of the population such as fertility, mortality, migration and also sex ratio. The knowledge of sex ratio is essential for the understanding the condition of women in society. A decline or low number of female population in the total population is strongly suggestive of the neglect of girl children, sex selective abortions and traditional attitudes of the society. Thus, the analysis of literacy and sex ratio is immense significant. Spearman's Rank order method is used for analyzes the correlation of literacy & sex ratio. The correlation between literacy and sex ratio in Satara district is r= -0.14. It is low and negative correlation.*

**Key words:** Education, Literacy, Sex Ratio, Spatial Pattern, Correlation, Satara

## INTRODUCTION

Literacy refers to the ability to read for knowledge, write coherently and think critically about the written word. Literacy is one of the most important indicator of social development. Literacy is the heart of basic education for all. It is essential for poverty reduction, mortality, curbing population growth, achieving gender equality and ensuring sustainable development, peace and democracy. 'Literacy has been defined as the ability both to read and write with understanding in any language of children who are above six years of age'. The gap between male and female literacy is a sensitive indicator of social discrimination. The gender gap in education occurs when there are systematic differences in schooling levels between men and women. It is a useful measure for providing evidence of the inequalities that exist between the sexes in terms of access to school. The construction of gender roles in any society is influenced by several factors, most of which are largely independent of the sources of poverty or growth. Indicators frequently used to measure gender equality include life expectancy, education, and earnings. India, like other developing countries, has always been characterized by its sharps inequalities, rooted in centuries by its evolution, of cast, gender and residence. The inequalities in literacy existing among male-female are most drastic in nature. The inequalities in literacy among male-female are result of

our countries old discriminatory social order and there natural adaptations (M.B. Singh, 20011).

Sex Ratio is important indicator of development. It also describes the present situation with respect to status of girl child, gender discrimination, infanticides and feticides. Present sex composition of child population determines the future vital events such as marriage rate, labour force, age structure, birth and death, migration, etc. The sex ratio is also important demographic component for the human development. The sex composition of a population is usually expressed in terms of sex ratio i.e. number of female per thousand of males.

According to 2011 census, the sex ratio of Maharashtra is 925 female per thousand male among the districts , Ratnagiri records the highest sex ratio of 1122 female per thousand male and Mumbai has the lowest sex ratio of 838 female per thousand male . In Satara district, the sex ratio is higher than the state average, it was recorded sex ratio of 988 female per thousand male among the tahsils, the highest sex ratio found in Jaoli tahsil and lowest in Mahabaleshwar i.e. 1068 female per thousand male and 937 female per thousand male respectively.

**STUDY AREA**

Satara is one of the popular district of Maharashtra. Satara District is located in the south western part of Maharashtra, lies between $17^05'$ to $18^011'$ north latitudes and $73^033'$ to $74^054'$ East longitudes (Fig. no. 1). It is bounded by Pune District to the north, Solapur District to the east, Sangli District to the South and Ratnagiri District to the west. Raigad district lies to its north-west. Satara district covers an area of 10484 sq kms. with an east west expanse of 135 km and north south expanse of 112 km. As per 2011 census of India, Satara districts total population is about 30,03,741 persons, male population is about 1,510,842 persons and female population is about 1,492,899 persons. The sex ratio of Satara district is 988 female per thousand male. Also, there have seen 82.87 percent average literacy rate, 89.42 percent male literacy rate and 76.31 percent female literacy rate.
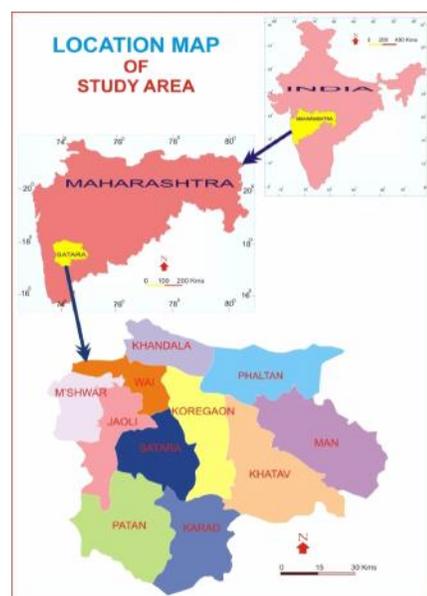


Fig. 1

## OBJECTIVES

The major objectives of this paper are as under:
1. To study the spatial pattern of literacy rate in the study region.
2. To examine the spatial pattern of sex ratio in the study region.
3. To analyze the correlation between spatial pattern of literacy and sex ratio in the study region.

## DATABASE AND METHODOLOGY

The paper is based on secondary data sources. To fulfill the objectives data regarding literacy and sex ratio of Satara District is obtained from census of Maharashtra (2011), statistical abstract of Satara District.The collected data are processed to analyze the pattern of literacy rate and sex ratio in Satara District. Arc Gis 9.3 software used for preparing the map and to show the spatial pattern of sex ratio and literacy in Satara district. The tahsils of Satara District are grouped into three categories i.e. high, medium and low literacy on the basis of simple statistical method. To analyze spatial pattern of sex ratio, the same technique is applied for calculation. The Spearman's Rank Order method is used for analyzes the correlation between literacy and sex ratio.

**Formula:-**
**Rank Order Spearman's Method**

$$r = 1 - \quad d^2 / n^2 - N$$

### Spatial Pattern of Literacy Rate
Satara district as a whole has 74.10 percent literacy in 2011. But the tahsil level literacy differs from tahsils to tahsils it ranges from 64.02 per cent to 79.69 per cent. All 11 tahsils of Satara district are divided into three categories as following: (in Fig. 2)

### High Literacy Rate
The tahsils have the literacy rate above 73.34 per cent are included in high category. High literacy rate was recorded in the tahsil of Satara, Koregaon, Wai, Khandala, Karad and Mahabaleshwer due to high number of educational institutions, availability of educational facilities, high urbanization, development of transport and communication and so on.

### Moderate Literacy Rate
The tahsils which have literacy rate ranges from 64.02 to 73.34 per cent are included in this category. Moderate literacy was recorded in the tahsils of Jaoli, Phaltan, Khatav and Patan tahsil. In these tahsils, moderate literacy was found due to lack of educational infrastructure.

### Low Literacy Rate
The tahsils which have literacy rate below 64.02 per cent are included in low category. Low literacy rate is found in the tahsils of Man. In this tahsil low literacy is recorded due to lack of educational institution, poverty, migration, drought area and low student teacher ratio.
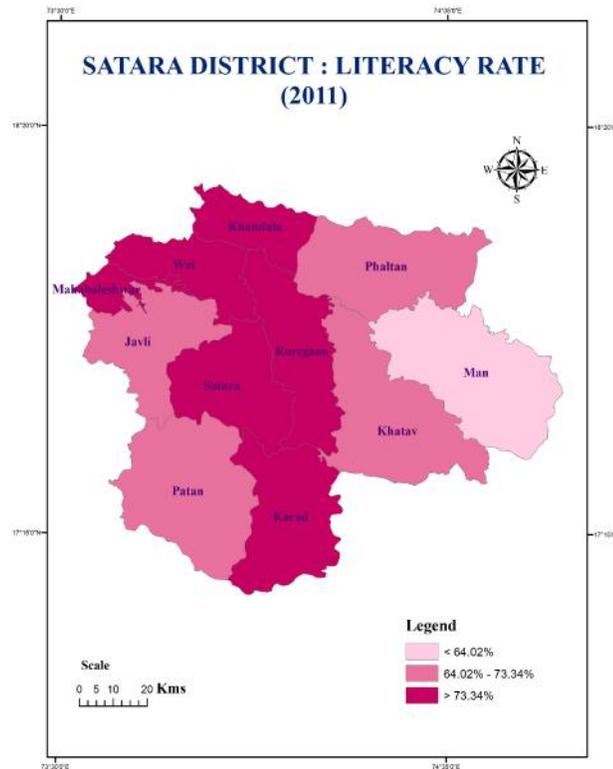
Fig. 2

**Literacy Rate and Sex Ratio in Satara District, 2011**

| Sr. No. | Tahsils | Literacy Rate | Sex Ratio |
|---------|---------|---------------|-----------|
| 1 | Jaoli | 73.34 | 1068 |
| 2 | Karad | 75.54 | 972 |
| 3 | Khandala | 76.08 | 947 |
| 4 | Khatav | 72.11 | 1012 |
| 5 | Koregaon | 76.50 | 999 |
| 6 | Mahabaleshwar | 75.48 | 937 |
| 7 | Man | 64.02 | 976 |
| 8 | Patan | 68.88 | 1065 |
| 9 | Phaltan | 72.32 | 944 |
| 10 | Satara | 79.69 | 976 |
| 11 | Wai | 76.25 | 1005 |
| | **Satara** | **74.10** | **988** |

Table 1   (Source: Census of India, 2011)

**Spatial Pattern of Sex Ratio**

Satara District as a whole has 988 number of females per thousand of males population in 2011. But the tahsils level sex ratio is varies from tahsils to tahsils ranges from 937 to 1068. All 11 tahsils are categorized into three groups as follows: (in Fig. 3)

## High Sex Ratio

The tahsils which have the sex ratio above 1012 number of females per thousand of males are included into high category. High sex ratio was recorded in the districts of Jaoli, Patan, Khatav, Wai and Koregaon. There are the some reasons for high sex ratio in Satara district i. e. better education level, maximum migration, less maternal mortality, best hospitality etc.

## Moderate Sex Ratio

The tahsils which have sex ratio ranges from 947 to 1012 number of females per thousand of males are included in the moderate category. Moderate sex ratio was recorded in the Karad, Khatav, Wai, Koregaon, Satara, Man and Karad tahsils. There are the some reasons for moderate sex ratio in these tahsils like high education level, minimum migration, etc.

## Low Sex Ratio

The tahsils which have the sex ratio below 947 are included in this group. Low sex ratio was recorded in the tahsils of Khandala, Phaltan and Mahabaleshwar. There are the some reasons for low sex ratio in these tahsils i. e. neglected of girl child, high maternal mortality, sex selective, female infanticide,etc.

With small family norms, many young couples do not for a second child happens to be a male. Higher female life expectancy is likely to initiate a new trend and tilt the scale of low sex ratio.
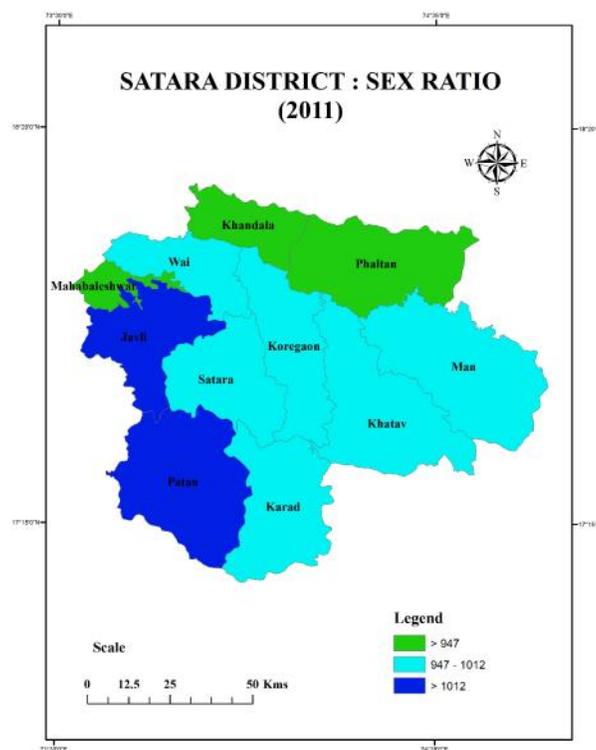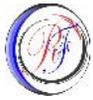


Fig. 3

**Correlation between Literacy and Sex Ratio**

The Spearman's Rank Order method is used for the calculation of the correlation of literacy and sex ratio in Satara District. It is observed that there is rather low and negative correlation i.e. p=-0.14 between the literacy and sex ratio in Satara District. There are the some reasons for low and negative correlation in Satara District i. e. geographical disturbances for settelment- mountain area, vally area, drought prone area; neglected of girl child, high maternal mortality, sex selective, female infanticide, migration, better hospitality etc.

**Conclusion**

There are wide disparities in the literacy and sex ratio of Satara District in 2011. The highest literacy was found in Satara tahsil and lowest in Man tahsil. The highest sex ratio is found in Jaoli tahsils whereas lowest in Mahabaleshwar tahsil of Satara District. But the correlation between literacy and sex ratio found in low degree and negative angle i.e. p = -0.14. It means high literacy rate, low sex ratio. It was observed higher the literacy rate lower the sex ratio i.e. Jaoli tahsil. That tahsil has 73.34 percent literacy and sex ratio has 1068 females per thousand of males.

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