

# A Geographical Study of Trends in Sex Ratio of Gondia District of Maharashtra State

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**Abstract:-** In assessing the quality of life and levels of development of a particular region sex ratio plays pivotal role. It also influences the other population characteristics such as migration, occupation structure, volume and nature of social need and employment. In the present study, the spatio-temporal variations in the sex ratio of Gondia District of Maharashtra State were analyzed using secondary sources of data. Also, light was shed on child sex ratio. The sex ratio of Gondia district was always higher than that of the Maharashtra state from year 1901 to 2011 whereas child sex ratio turned out to be very low. Gondia is among those districts which show the trend of higher sex ratio over decades. Also, lot of variation was observed in rural and urban sex ratio in Gondia District. Sex ratio of rural areas was higher than that of urban areas.

**Keywords:-** Sex Ratio, Child Sex Ratio, Gondia District, Maharashtra, Gender Equit.

## I. INTRODUCTION

Sex ratio is used to find the population of women in India which describes number of females per 1000 males. Sex composition of the population is one of the key demographic characteristics, which is extremely important for the demographic analysis. Variations in sex composition indicate the intrinsic socio-economic and cultural patterns of a society in different fashion. It is an important social indicator which measures the extent of prevailing gender equity in a society at a particular point of time.

The marriages and growth rate of a population are controlled by its sex composition. Some other important population characteristics such as migration, occupation structure, etc. are also influenced by the gender ratio. Since, the roles of both the sexes are partly complementary and partly contrasting, the study of sex ratio is of great interest in the field of population geography.

In India there has been a decrease in the sex ratio since decades. But a slight increase in the sex ratio has been observed since the last two decades. In Maharashtra, many districts show the imbalance in the general sex ratio and it has below the national level average. Some districts of Maharashtra state have higher sex ratio. Gondia is among these districts which show the trend of higher sex ratio over

decades. Also, lot of variation was observed in rural and urban sex ratio in Gondia District.

Number of females per 1000 males in the age group 0-6 years is termed as Child Sex ratio. In India there has been a decreasing trend of the Child sex ratio after independence. The main reason behind this disturbing fact is due to the son preference in the society. Although the child sex ratio of Gondia district showed decrease but it was at lower rate.

## II. OBJECTIVES

The main objectives of the present study are:

- To analyze the child sex ratio of the Gondia District.
- To analyze the spatio-temporal variations in sex composition of Gondia District at Tahsil level.
- To analyze the spatial variation in rural urban sex ratio in Gondia District.
- To analyze the decadal variations in rural urban sex ratio.

## III. THE STUDY AREA

Gondia district is an administrative district in the State of Maharashtra in India. It is located between 20° 35' to 21° 45' north latitudes and 79° 45' to 80° 45' east longitudes. It is situated at the mouth of river Wainganga which is an important river of the district. Gondia is bounded by Rajnandgaon district of Chattisgarh state on eastern side and Balaghat district of Madhya Pradesh on northern side.

Gondia has adjoining districts of Maharashtra, Gadchiroli to the south and Bhandara district to west. In the year 1999, Gondia district was separated from the Bhandara district. Currently, Gondia occupies 1.83% of the total geographical area of the Maharashtra State and the total area covered is 5,234 square kilometers.

According to the census report of year 2011, the total population of Gondia is 13,22,331 out of this, 6,62,524 were male and 6,59,807 were females. Gondia district is administratively divided into 8 Tahsils, which are - Gondia, Tirora, Amgaon, Goregaon, Salekasa, Sadak Arjuni, Arjuni Morgaon, and Deori.

The largest commodity producing sector of Gondia is agriculture. It is one of the major rice producing districts in the state of Maharashtra.

#### IV. DATABASE AND METHODOLOGY

The present study relies on the secondary data collected from the various government sources like District Census Handbooks (1981-2011), District Socio-Economic Abstracts, District Gazetteers (1981-2011). Some information is obtained from the official websites of the government offices. The data has been analyzed with the help of the statistical tables and cartographic techniques for showing the trends in sex composition. For the present work all the 8 tahsils of Gondia district are selected in particular.

#### V. SEX RATIO OF GONDIA DISTRICT AND MAHARASHTRA

According to 2011 census, the sex-ratio works out to 999 per thousand males in Gondia district as a whole which was higher than that of the Maharashtra state. In the year 2001 also, it was higher i.e. 1005 as compared to Maharashtra in which there were only 922 females per 1000 males. Over the decades, trend is depicting decrease in the sex ratio of Gondia and Maharashtra both (Figure No 1).

#### VI. TREND OF CHILD SEX RATIO IN THE GONDIA DISTRICT

Child sex ratio is one of the most basic demographic factors and indicates the relative survival of females and males and the future breeding capacity of a population.

In the year 2001, the average child sex ratio was 958 females per 1,000 males. As far as tahsils are concerned, highest value was recorded for Deori (980) and the lowest was recorded for Tirora (927). Five tahsils out of eight, namely Gondia, Amgaon, Salekasa, Atjuni-Morgaon and Deori depicted higher sex ratio than the district average. Tirora, Goregaon and Sadak Arjuni tahsils showed lower sex ratio than the region under study.

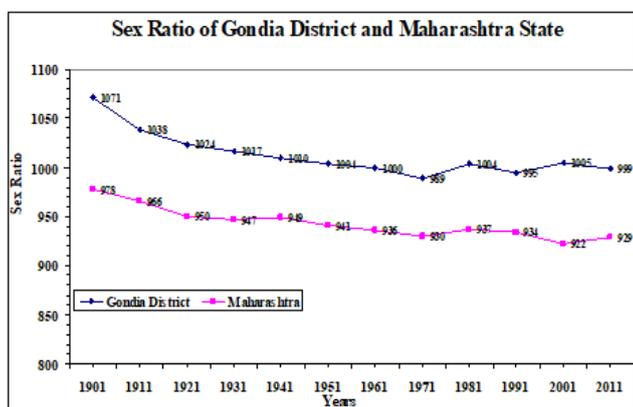


Fig. 1:- Sex Ratio of Gondia District and Maharashtra State

In the year 2011, the child sex ratio for Gondia District was 956. Four Tahsils viz. Goregaon, Amgaon, Salekasa and Deori Tahsils showed higher sex ratio in the age group 0-6 years than the District average while remaining Tahsils namely Tirora, Gondia, Sadak-Arjuni and Arjuni Morgaon showed lower sex ratio as compared to District average.

In Gondia District there was a little difference in the values of child sex ratio for the year 2001 and 2011. But these values are very low. The child sex ratio is a sensitive indicator that indicates the status of female children and its decline may cause concern among the planners and demographers (Figure No 2).

#### VII. SPATIO-TEMPORAL VARIATION IN SEX RATIO IN GONDIA DISTRICT (1981-2011)

In order to understand, spatial variations in sex ratios in Gondia district, for the period 1981-2011, it was calculated for each tahsil of the region under study. In the year 1981, Gondia was the only tahsil and the sex ratio for the study region as a whole was 1006. In the year 1991, Tirora, Amgaon and Goregaon tahsils, have shown sex ratio above the region average. Salekasa tahsil represented the same sex ratio as of district total which was 995. The sex ratio declined substantially for certain regions, for example in Gondia and Arjuni Morgaon tahsils it came down to 981 and 983 respectively for the region under study. Gondia, Arjuni Morgaon and Deori have also shown sex ratio below the region average. It may be probably due to the enhancement in decentralization of industries and spread of urban population in different parts of the region. This has also been due to decline in the rural urban migration in various parts of Gondia district.

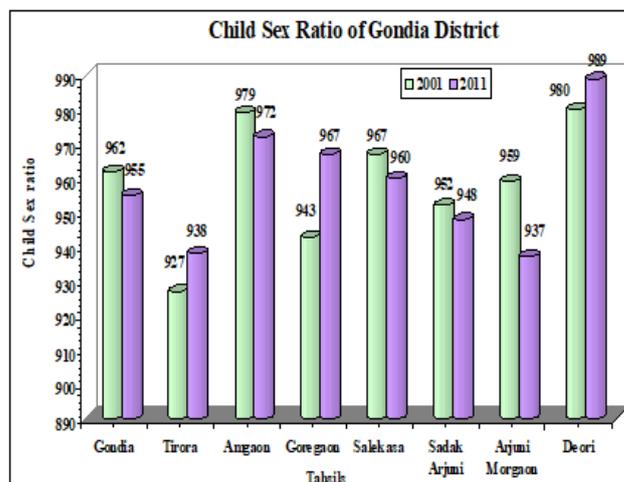


Fig. 2. Child Sex Ratio of Gondia District

Sr. No.	Tahsil	Year			
		1981	1991	2001	2011
1	Gondia	1006	981	999	1003
2	Tirora	N.A.	1005	1012	981
3	Amgaon	N.A.	1010	1025	1007
4	Goregaon	N.A.	1018	1028	1014
5	Salekasa	N.A.	995	1020	1006
6	Sadak Arjuni	N.A.	N.A.	991	986
7	Arjuni Morgaon	N.A.	983	977	985
8	Deori	N.A.	992	1009	1014
	<b>District Total</b>	<b>1006</b>	<b>995</b>	<b>1005</b>	<b>999</b>

Table 1:- Spatio-Temporal Variations In Sex-Ratio In Gondia District (1981-2011)

Source : Census Handbook Gondia District 2001-2011 and Bhandara District 1981-1991.

In the year 2001, the sex ratio for the district as a whole was 1005 per thousand males which slightly increased from the year 1991. Goregaon, Amgaon, Salekasa, Tirora and Deori have shown sex ratio above the region average. Rest of the tahsils have shown lower sex ratio than the region average. The Goregaon tahsil represented highest sex ratio in the region under study, while lowest for Arjuni Morgaon tahsil. Therefore, it may be stated that there are wide variations as regard to sex ratio within the region under study.

In the year 2011, the sex ratio for the district as a whole was 999 per thousand males which slightly decreased in the year 2001. Goregaon and Deori tahsils represented the higher sex ratio in the region under study, while lowest for Tirora tahsil. Likewise, with time, sex ratios were substantially declining in some tahsils due to high percentage of female infant mortality in the region under study (Table 1).

**VIII. SPATIAL VARIATION IN RURAL URBAN SEX RATIO IN GONDIA DISTRICT (2011)**

In Gondia district, the rural and urban sex ratio differs considerably in the year 2011. The rural sex ratio was 1001 for the district as a whole in this year. However, there were wide variations within the district, as it was highest for the Deori and lowest for the Tirora tahsil for rural areas. Overall urban sex-ratio is lower than the rural sex ratio within the region under study. The urban sex ratio for the district was 988 which was markedly lower than the rural sex ratio. For the Amgaon tahsil, it was the highest and for Tirora tahsil it was the lowest. Salekasa tahsil occupied second position as regard to urban sex ratio, among various tahsils of Gondia district.

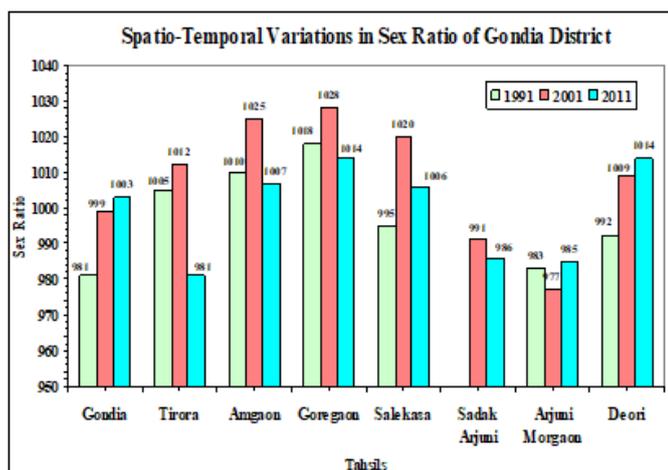


Fig. 3:- Spatio-Temporal Variations in Sex Ratio of Gondia District

Sr. No.	Tahsil	Total	Rural	Urban
1	Gondia	1003	1011	990
2	Tirora	981	982	977
3	Amgaon	1007	1008	1003
4	Goregaon	1014	1014	00
5	Salekasa	1006	1007	997
6	Sadak Arjuni	986	986	00
7	Arjuni Morgaon	985	985	00
8	Deori	1014	1021	972
	<b>District Total</b>	<b>999</b>	<b>1001</b>	<b>988</b>

Table 2:- Tahsil Wise Sex Ratio In Gondia District (2011)  
Source: Census Handbook Gondia District 2011.

Goregaon, Sadak Arjuni and Arjuni Morgaon tahsils are entirely rural. Hence, the urban sex ratio is absent. Deori and Tirora tahsils of the district have lower sex ratio than the region under study.

Though the medical facilities were much better in urban areas and the percentage of literate people was also high, who give equal attention towards both male and female children, the sex ratio of urban area was lower than that of the rural area. This trend may be attributed to the rural urban migration dominated by male should reduce the urban sex ratio than the rural sex ratio (Table 2 and Figure No 4).

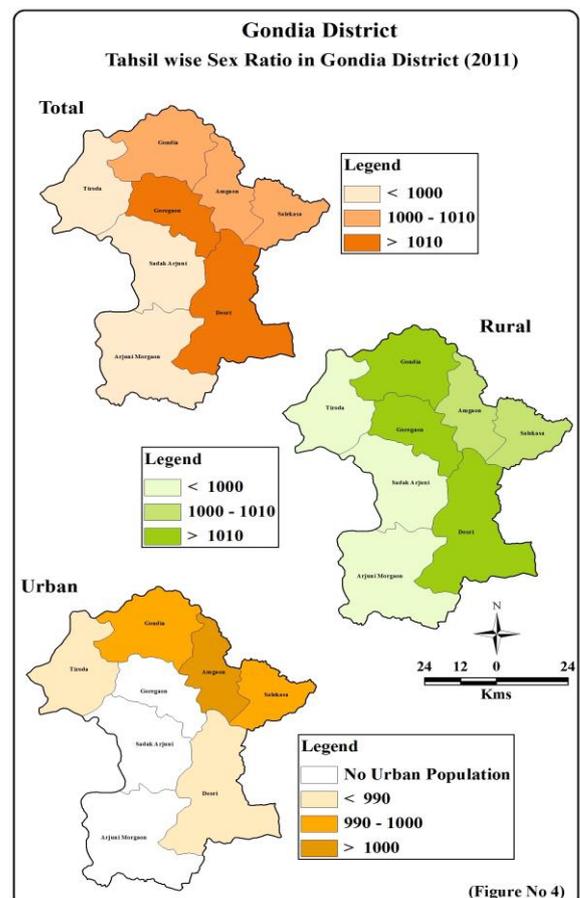


Fig. 4:- Map showing tahsilwise Sex Ratio in Gondia District

Sr. No.	Year	Rural Sex Ratio	Urban Sex Ratio
1	1901	1071	-
2	1911	1041	877
3	1921	1028	913
4	1931	1024	824
5	1941	1015	890
6	1951	1014	880
7	1961	1010	913
8	1971	997	926
9	1981	1010	961
10	1991	1001	953
11	2001	1010	970
12	2011	1001	988

Table 3:- Decade-Wise Variation In Rural-Urban Sex Ratio (1901-2011)

Source: Census Handbook Gondia District 2011.

The urban centers and industrialized sectors attract the population towards them by offering numerous job opportunities. They have pulled male population as per their merits and demand of the industrial sectors. However, many urban centers have not accommodated all the families of the workers, due to dwelling problem and inadequacy of accommodations, mostly migration is male dominated.

The above phenomenon is the product of the fact that the 90% of population of Gondia lives in villages and they are largely dependent on agriculture for their livelihood. Also, rice has been grown only a single crop in a year. In rest of the period they remain unemployed. So, in search of the employment male population tends to move to urban areas whereas their female counterparts stay in the village.

**IX. DECADAL VARIATIONS IN RURAL URBAN SEX RATIO (1901-2011)**

The temporal variations in rural-urban sex ratios for the Gondia district as a whole have been taken into account for the last eleven decades. Surprisingly, the rural sex ratio, were higher than the urban sex ratios. This may be probably attributed to the rural urban migration for the better employment opportunities available in the urban areas, particularly for the working males, who leave their families behind at home in rural areas. As a result of this, the rural sex ratio was higher than the urban sex ratio during the period 1901 to 2011. Nowadays, due to social awareness and high rate of literacy in urban areas of Gondia district, might have resulted in the improvement sex ratios in urban areas of the district (Table 3).

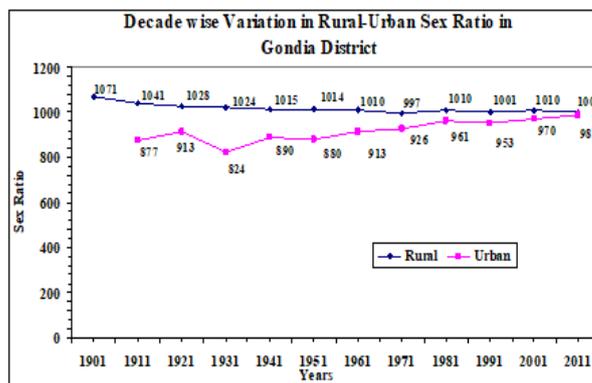


Fig. 5:- Decadal variations in Rural-Urban Sex Ratio in Gondia District

**X. CONCLUSION**

In Gondia district some decades showed increasing trend of the sex ratio while other experienced decreasing trends. There is zigzag pattern of sex ratio. Nevertheless, there is no considerable gap in the sex ratio over decades. However, sex ratio of rural areas has been always higher than that of the urban areas. This trend of sex ratio for the study region is a result of the bias in migration of females for labor force participation and other economical activities. Gondia is predominately rural district and majority of working force depends primarily on agriculture. Also, mostly rice is grown as the major crop in whole year. Therefore, male population of rural area migrates to cities in search of employment. Consequently, the sex composition of the net migration is also a significant component in determining the sex ratio of urban areas. Moreover, the decreasing trend of child sex ratio indicates the likelihood of high male mortality in the study region. This situation affects the male-female ratio in the Gondia district which is a backward in terms of development, with around 80% of the population living in rural areas.

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