# A MICRO-LEVEL STUDY OF SEX RATIO IN BIRBHUM & MURSHIDABAD DISTRICTS OF WEST BENGAL (2011)

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**Abstract-**

A generalized presentation of sex ratio distribution for a region gives us only partial information. The present study analyses sex ratio for Birbhum and Murshidabad districts of West Bengal, at three levels i.e. District, Block and Village level in different categories i.e. Child sex ratio, Adult sex ratio or Scheduled caste and scheduled tribe sex ratio, using PCA census 2011. When studied on a micro-level say, village and block level, we get to know the real problem area, which particular village or block has low sex ratio in a specific category. So that the governing authorities know specific problem area in a large region, it leads to efficient planning; resources can be diverted to a particular village or block to target a particular type of low sex ratio. Within a district, zones of low or high sex ratios can also be visualized which is related with characteristics of demography in that zone, e.g. high or low Scheduled caste or tribe population. Block level analysis is showed with the help of bar graphs and Village level analysis is showed with the help of ArcGIS maps. The maps make it easier to compare between Birbhum and Murshidabad districts.

Key words- Sex ratio, Birbhum, Murshidabad, Village level, Block Level.

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## INTRODUCTION

The sex ratio in the villages of Birbhum district is shown with the help of Maps prepared with the help of the ArcGIS.

The objective is to showcase the sex ratio in different villages of the district, the stressed villages and the better-off villages.

The data source is the PCA data of census 2011.

The methodology that has been followed is first calculating sex ratio among the child population, total population, SC and ST population.

Then, After joining the excel file with the shape file of the merged blocks of the district, dividing the entire observation into mainly five classes based on the Quantile method of classification in symbology. The quantile method of classification makes the classes based on the observation, as the data of each category and each district is varied, that's why classes are different in each map. After this the classes were assigned colors. In these maps red color and the shades of red color signify the lesser sex ratio. There are some villages of which codes don't match with the census data, that's why they appear blank in the map, and are categorized as not available.

## BLOCK WISE ANALYSIS OF SEX RATIOS IN BIRBHUM DISTRICT

**Adult Sex Ratio:** The sex ratio of various blocks is shown in the graph below. Bolpur is the block with the highest sex ratio which is 982 females per 1000 males. While the lowest sex ratio is seen in the block Khoyrasol block, which is 937. The district sex ratio is 956.
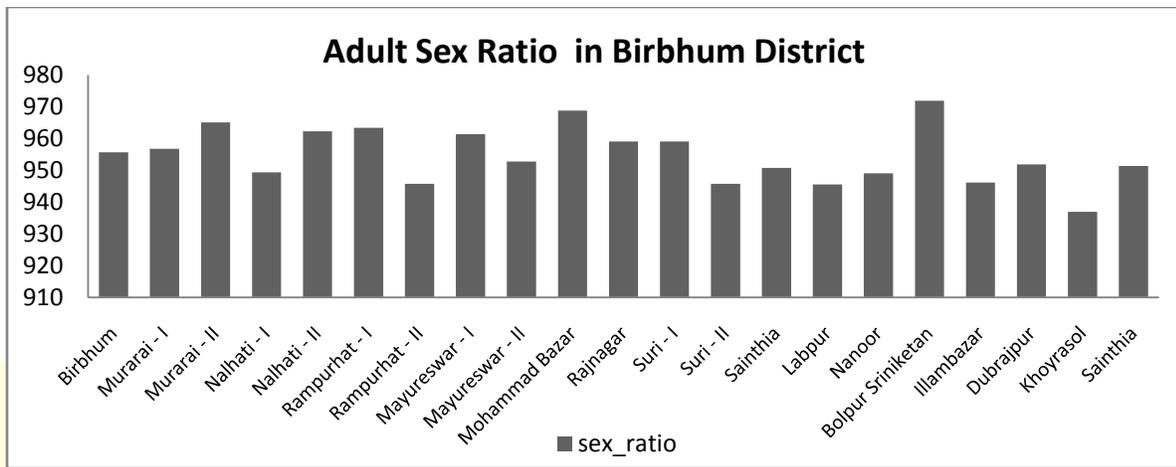
**Child Sex Ratio:** Child sex ratio is shown in the chart below. Mohammad Bazaar is the block with the highest (983) sex ratio, while Sainthia block has the lowest sex ratio, which is 880. The child sex ratio of the district is 959 which are only slightly higher than Sex ratio.
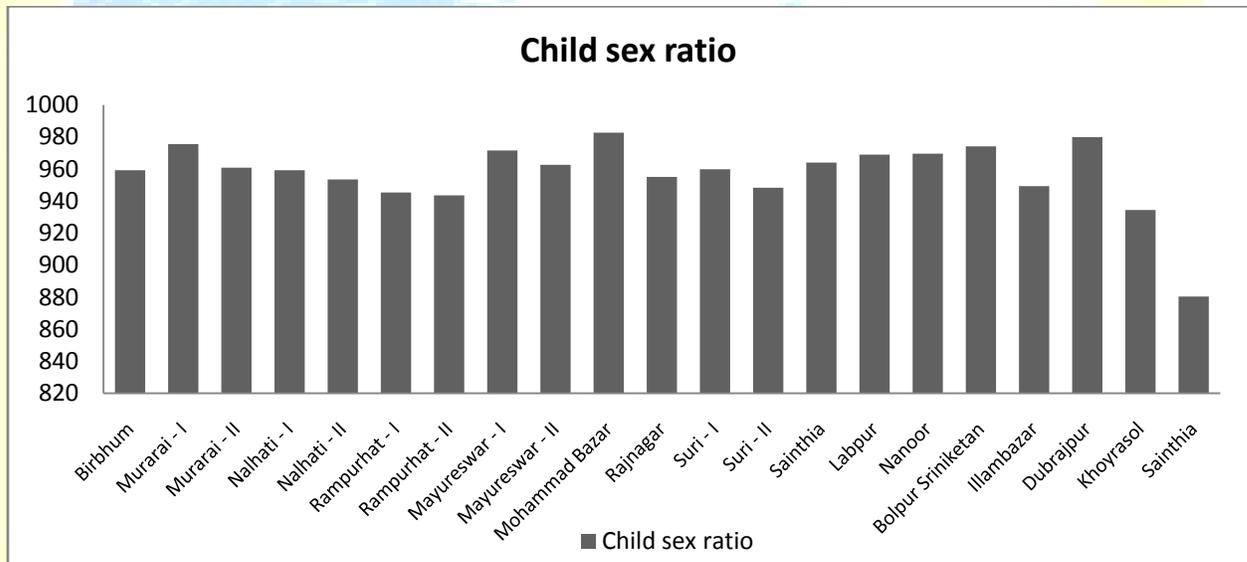


**Scheduled Caste Sex Ratio:** The SC sex ratio is highest in Sainthia block which also has the lowest child sex ratio. The lowest SC sex ratio is in Rampurhat-2 block, the SC sex ratio here is 934, which is normal if we look at the national average, but is lower compared to other blocks of the district. For the whole district, the SC sex ratio is 953.
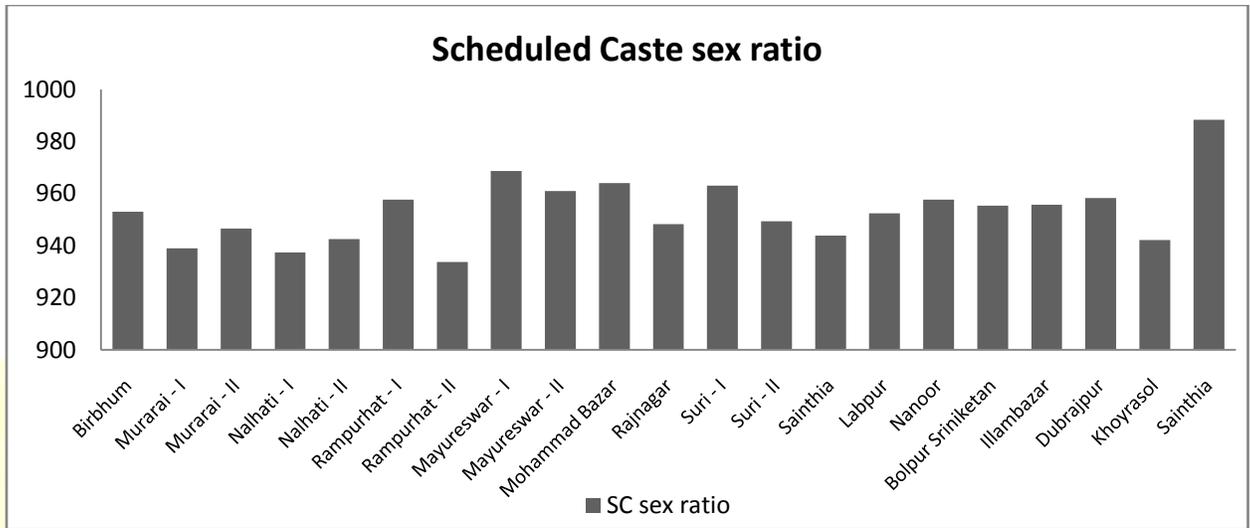
**Scheduled Tribe Sex Ratio:** There is not much variation among the blocks, when it comes to the sex ratio among the scheduled tribe. Most of the blocks are near or above 1000. Highest is in Nalhati-2 and Bolpur blocks, which is 1148 and 1147 respectively. Lowest tribal sex ratio is in Suri block which is 929. The ST sex ratio for the district Birbhum is 1024.
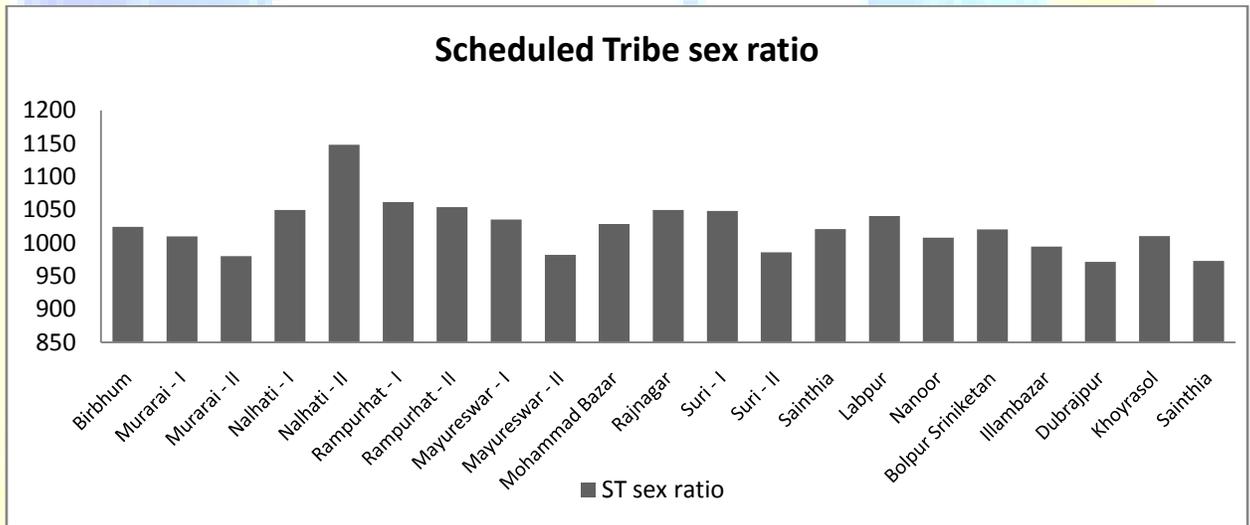


**BLOCK WISE ANALYSIS OF SEX RATIOS IN MURSHIDABAD DISTRICT**

**Adult Sex Ratio:** The district average of sex ratio is 958 females per 1000 males. Block Samserganj has the highest sex ratio of 1000, while Jiaganj block has the lowest 936 sex ratio.

There is much variation seen in this graph, even the villages wise map shows much variation when it comes to the sex ratio of the total population.

**Adult Sex Ratio in Murshidabad**
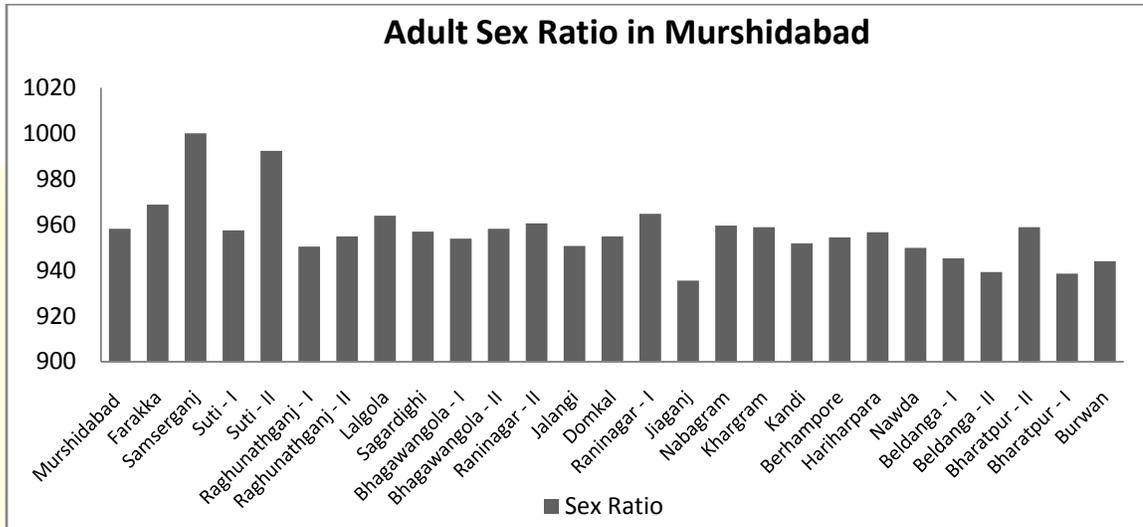


**Child sex Ratio:** The child sex ratio in Murshidabad district is 968, which is 10 digits more than sex ratio. Highest child sex ratio is 992 in Hariharpara block. While, the lowest child sex ratio is 945, found in Burwan block. Child sex ratio is better among the blocks of Murshidabad district compared to Birbhum.
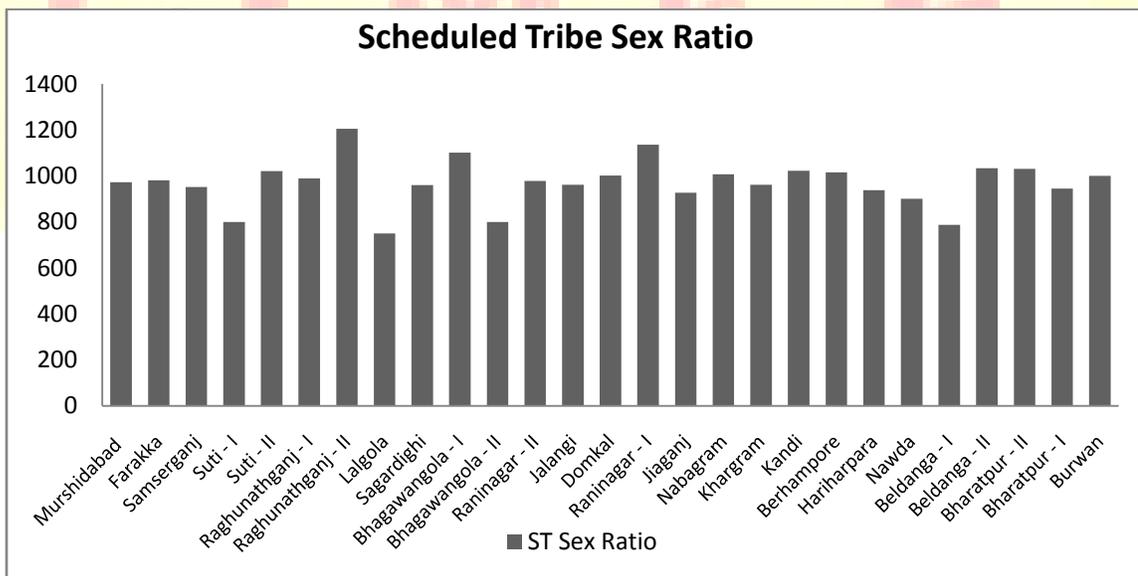
**Child Sex Ratio**
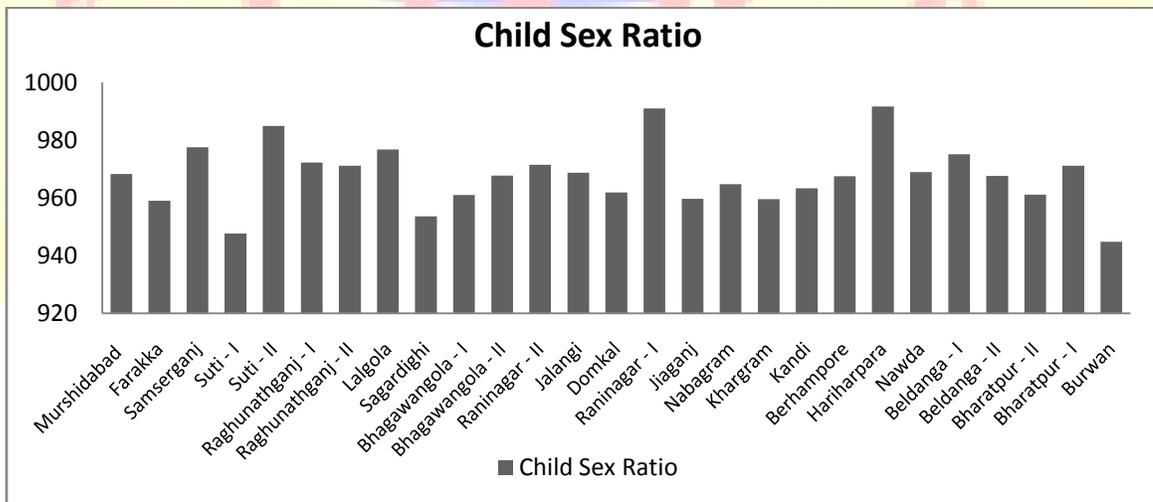
**Scheduled Caste Sex Ratio:** The sex ratio among the scheduled casts is 951 in Murshidabad. The highest sex ratio among the SCs is in Samserganj (971), while the lowest is in Bhagwangola-2 block, being only 918 females per 1000 males.
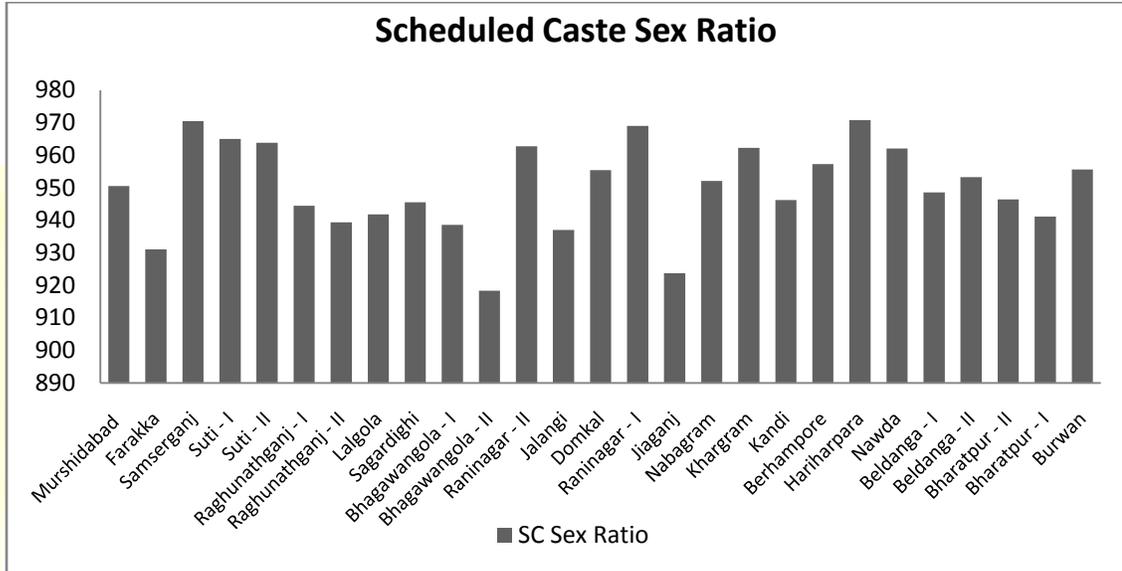


**Scheduled Tribe Sex Ratio:** Although, the sex ratios among Scheduled tribes in Murshidabad districts lower than Birbhum. Being only 972, while in Birbhum it is more than 1000. And also there is more variation among the blocks.

In Raghunathganj-2, the sex ratio is 1205, which is the highest and Lalgola has a ST sex ratio of only 750, which is the lowest.
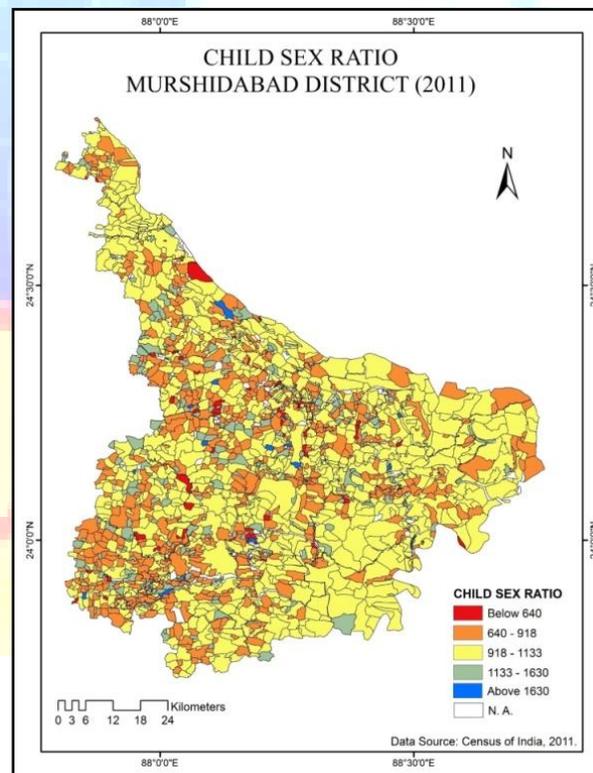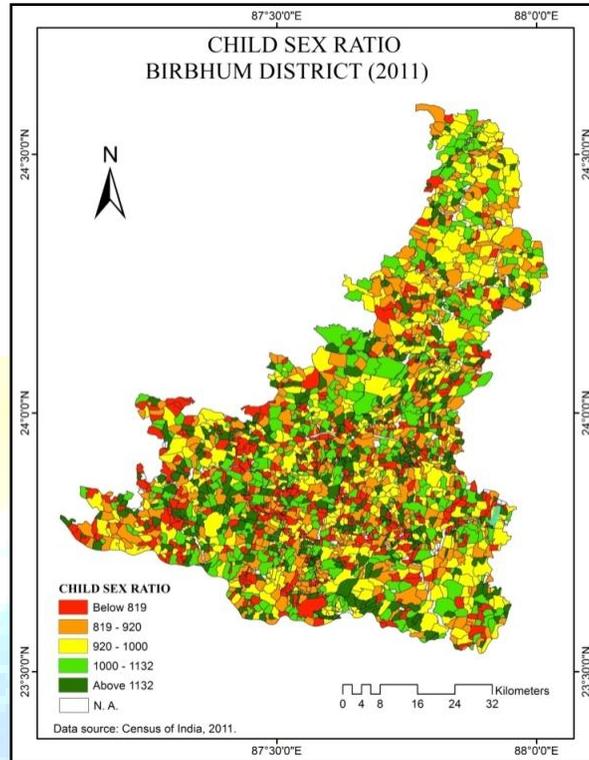
There are four maps of each district, Child sex ratio, Sex Ratio, Scheduled Cast sex ratio, Scheduled Tribe sex ratio.

## VILLAGE LEVEL ANALYSIS

## CHILD SEX RATIO

In Birbhum district the lowest sex ratio is 819 female children per 1000 male children, while in Murshidabad, this value is much lower being 640. Although, there are only a few villages in the first category. The last category for Birbhum district is above 1132, and there are quite few villages in this category, while Murshidabad has this category, above 1630, although, this number is greater than the earlier district, but there are very few villages falling in this category. Most of the villages of Murshidabad fall in the middle category 918 to 1133, while most villages in Birbhum fall in first two categories.

CHILD SEX RATIO
BIRBHUM DISTRICT (2011)

CHILD SEX RATIO
- Below 819
- 819 - 920
- 920 - 1000
- 1000 - 1132
- Above 1132
- N. A.

Data source: Census of India, 2011.

We can say that, there is more variation in Murshidabad district, and the Child sex ratio of Birbhum district is better than Murshidabad.

**ADULT SEX RATIO**

The sex ratio for both districts seems better than child sex ratio. But there are some stressed villages in Murshidabad which have sex ratio below 760. In district Murshidabad most of the villages lie in the middle category, which is from 913 to 971. While, in Birbhum, most of the villages lie in the last two categories 963 to 996 and above 996. There is another pattern, in the district Birbhum, the categories change from village to village but in Murshidabad there is a continuous group of villages falling into the same category. In this sense, it can be said that there is more variation in Birbhum.

SEX RATIO
MURSHIDABAD DISTRICT (2011)



SEX RATIO
BIRBHUM DISTRICT (2011)
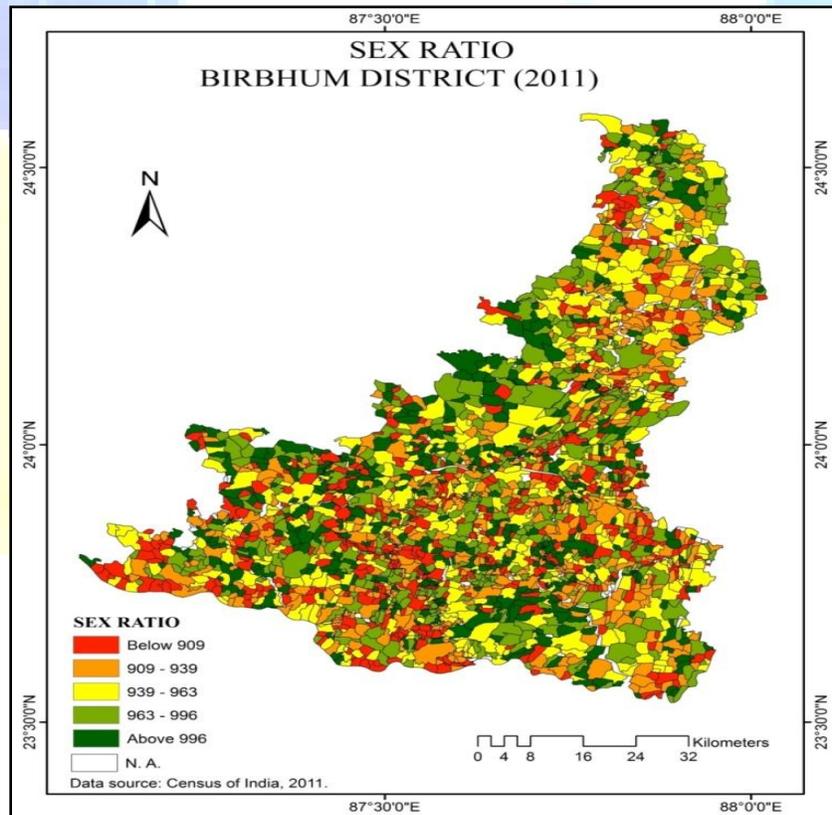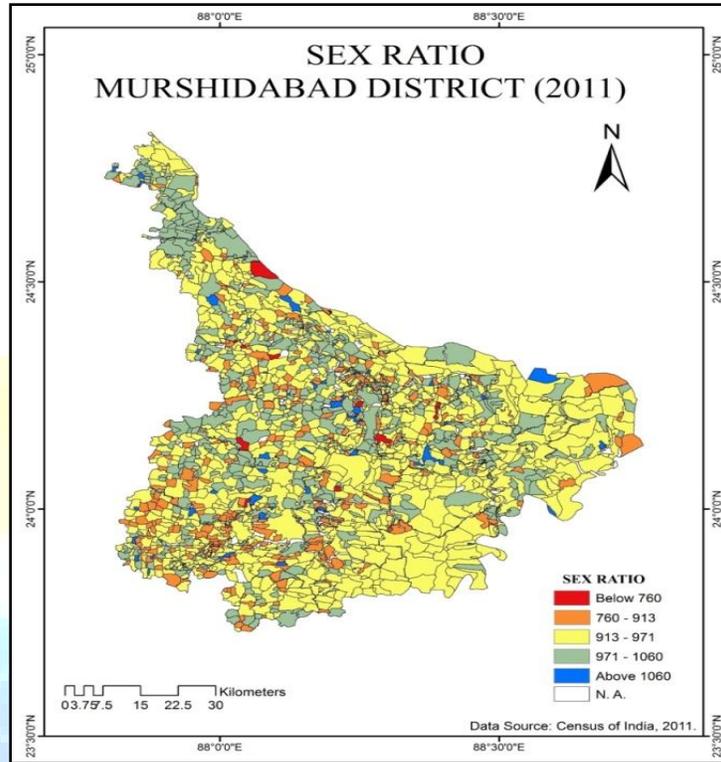
## SCHEDULED CASTE SEX RATIO

There seems a very sex ratio among the villages in Murshidabad. In the highest category which is above 1006, there are a lot of villages that fall in it. But another interesting thing is that, there are a lot of villages in the lowest category too, which is below 891, and the surprising fact is that some of these villages are adjacent to the villages with the highest sex ratio. There are a few villages which do not have any scheduled cast populations.
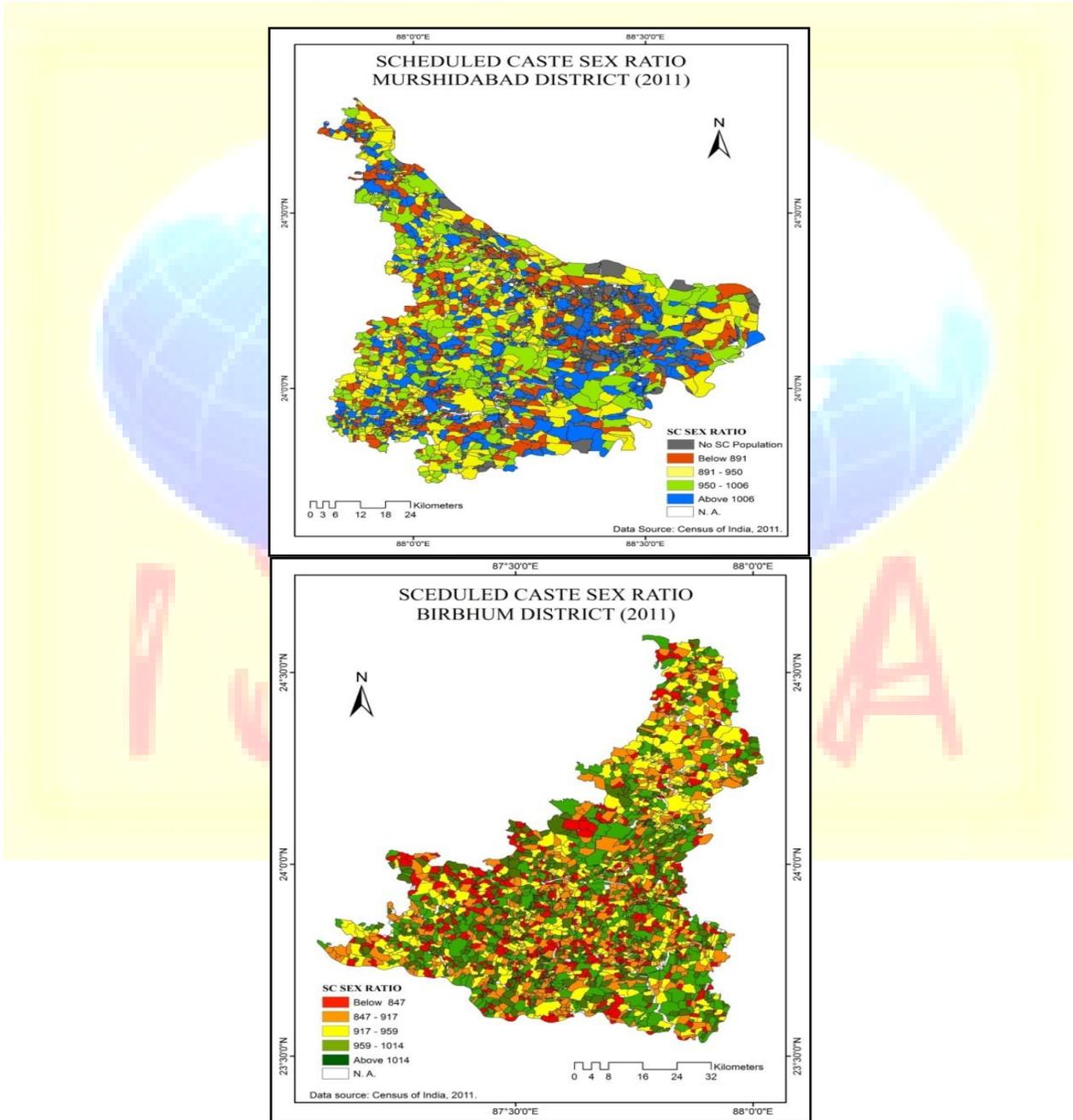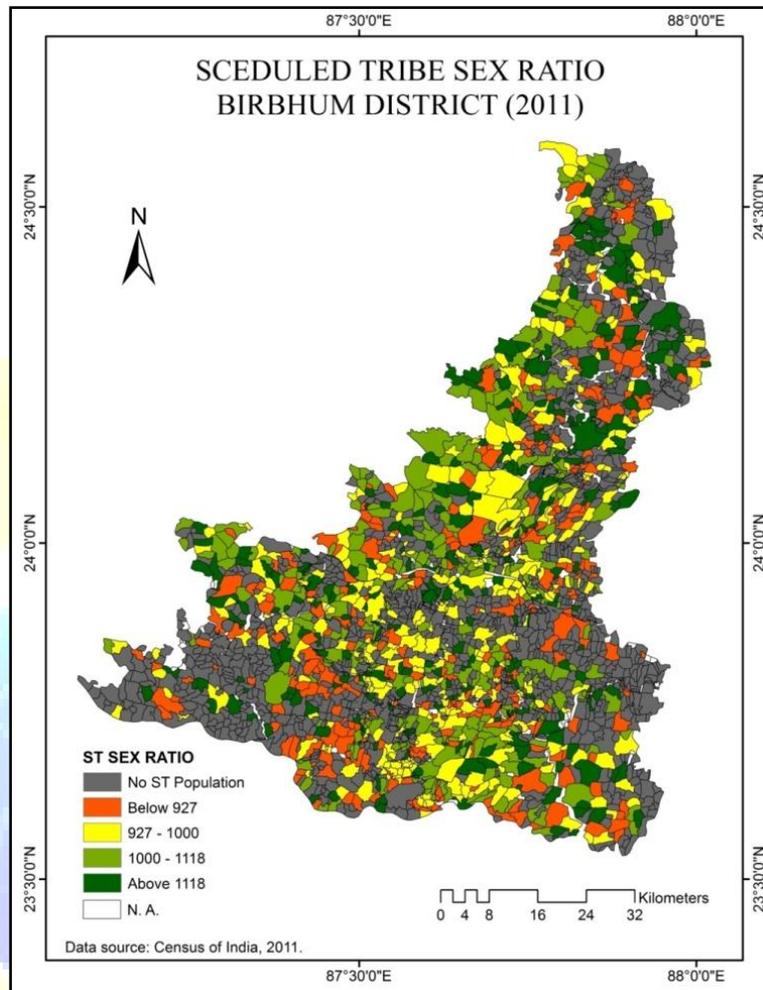
For Birbhum district, the lowest category is below 847, and there are also a lot of villages falling into this. These villages are shown with the color red. District Birbhum's lowest category is lower than Murshidabad's lowest category, but also, Birbhum's highest category is higher than Murshidabad's highest category. In Birbhum district there are no villages with zero scheduled cast population.

## SCHEDULED TRIBE SEX RATIO

There are so many villages in Murshidabad district which have no scheduled tribe population. And there are quite a few villages in Birbhum also with zero scheduled tribe population. In Murshidabad there are a few villages which have ST sex ratio below 851, a few have ST sex ratio more than 1173, but the largest number of villages fall in the category 851 to 1000.



SCHEDULED TRIBE SEX RATIO
MURSHIDABAD DISTRICT (2011)

ST SEX RATIO
- No ST Population
- Below 851
- 851 - 1000
- 1000 - 1173
- Above 1173
- N. A.

Data Source: Census of India, 2011.
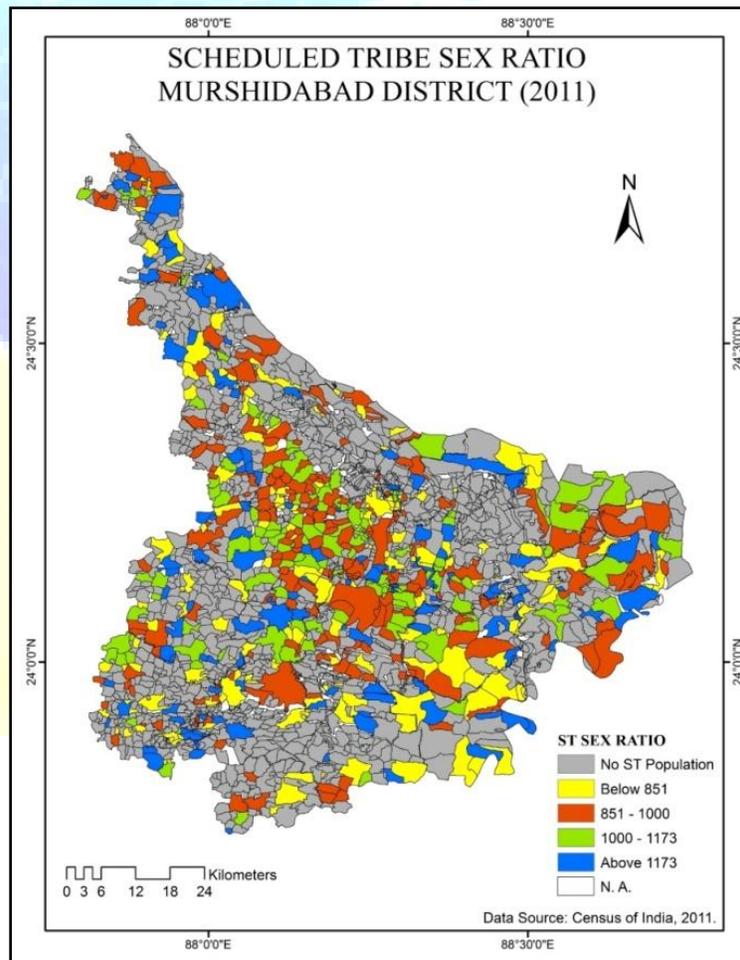
The scheduled tribe sex ratio of Birbhum villages is better than Murshidabad; the lowest category is below 927, while the highest category is above 1118. A great number of villages fall in the sex ratio from 1000 to 1118 female per 1000 males of the scheduled tribe population.

TABLES-

| | sex_ratio | Child sex ratio | SC sex ratio | ST sex ratio |
|---|---|---|---|---|
| **Birbhum** | 956 | 959 | 953 | 1024 |
| Murarai - I | 957 | 976 | 939 | 1010 |
| Murarai - II | 965 | 961 | 947 | 980 |
| Nalhati - I | 949 | 959 | 937 | 1050 |
| Nalhati - II | 962 | 954 | 943 | 1148 |
| Rampurhat - I | 963 | 945 | 958 | 1062 |
| Rampurhat - II | 946 | 944 | 934 | 1054 |
| Mayureswar - I | 961 | 972 | 969 | 1035 |
| Mayureswar - II | 953 | 963 | 961 | 982 |
| Mohammad Bazar | 969 | 983 | 964 | 1028 |
| Rajnagar | 959 | 955 | 948 | 1050 |
| Suri - I | 959 | 960 | 963 | 1048 |
| Suri - II | 946 | 948 | 949 | 986 |
| Sainthia | 951 | 964 | 944 | 1021 |
| Labpur | 946 | 969 | 952 | 1041 |
| Nanoor | 949 | 970 | 958 | 1008 |
| Bolpur Sriniketan | 972 | 974 | 955 | 1020 |
| Illambazar | 946 | 949 | 956 | 994 |
| Dubrajpur | 952 | 980 | 958 | 971 |
| Khoyrasol | 937 | 935 | 942 | 1010 |
| Sainthia | 951 | 880 | 988 | 973 |
| | Sex Ratio | Child Sex Ratio | SC Sex Ratio | ST Sex Ratio |
| **Murshidabad** | 958 | 968 | 951 | 972 |
| Farakka | 969 | 959 | 931 | 980 |
| Samserganj | 1000 | 978 | 971 | 952 |
| Suti - I | 958 | 948 | 965 | 800 |
| Suti - II | 992 | 985 | 964 | 1020 |
| Raghunathganj - I | 951 | 972 | 944 | 989 |
| Raghunathganj - II | 955 | 971 | 939 | 1205 |
| Lalgola | 964 | 977 | 942 | 750 |
| Sagardighi | 957 | 954 | 946 | 960 |
| Bhagawangola - I | 954 | 961 | 939 | 1102 |
| Bhagawangola - II | 958 | 968 | 918 | 800 |
| Raninagar - II | 961 | 971 | 963 | 978 |
| Jalangi | 951 | 969 | 937 | 961 |

| | | | | |
|---|---|---|---|---|
| Domkal | 955 | 962 | 955 | 1002 |
| Raninagar - I | 965 | 991 | 969 | 1135 |
| Jiaganj | 936 | 960 | 924 | 927 |
| Nabagram | 960 | 965 | 952 | 1007 |
| Khargram | 959 | 960 | 962 | 961 |
| Kandi | 952 | 963 | 946 | 1023 |
| Berhampore | 954 | 968 | 957 | 1015 |
| Hariharpara | 957 | 992 | 971 | 938 |
| Nawda | 950 | 969 | 962 | 900 |
| Beldanga - I | 945 | 975 | 949 | 787 |
| Beldanga - II | 939 | 968 | 953 | 1034 |
| Bharatpur - II | 959 | 961 | 946 | 1031 |
| Bharatpur - I | 939 | 971 | 941 | 945 |
| Burwan | 944 | 945 | 956 | 1001 |