

# Demographic, Socioeconomic, Maternal and Child Health of Scheduled Tribe Women of Madhya Pradesh, India

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## Abstract

Madhya Pradesh is one of the Empowered Action Group (EAG) states of India and is in a phase of demographic transition. This paper attempts an analysis of the status of women of scheduled tribe (ST) dominated districts in comparison to other districts of the state. Tribal communities are found in various ecological and geo-climatic conditions ranging from plains and forests to hills and inaccessible areas. Tribal groups are at different stages in the field of social, economic, and educational development. While some tribal communities have adopted a mainstream way of life but, at the other end there are certain Scheduled Tribes, 75 in number known as Particularly Vulnerable Tribal Groups (PVTGs), (STATISTICAL PROFILE OF SCHEDULED TRIBES IN INDIA, 2013) Education and health facility are an important component in the overall development of individuals, enabling them to greater awareness and better health status and also for a better comprehension of their social, political, and cultural environment and also facilitating in the improvement of their socio-economic conditions.

**Keywords:** Demographic, Schedule tribe, Vulnerable, Geo-climatic.

## INTRODUCTION:

The Empowered Action Group (EAG) states are high focus, high priority states on the national development agenda. The states' performance on basic human development indicators and other developmental indicators fall far below the national average. Madhya Pradesh (M.P.) which belongs to the EAG group is considered as one of the less developed states of the country. This makes MP one of the least developed states with the Human Development Index (HDI) value of .375 which is below the national average of 0.586 and places the state in 20th rank among the major states in India in HDI in terms of performance in literacy, health and income (UNDP, 2011). More than one-fifth (21 percent) of the population in the state is tribal indicating a high concentration of Scheduled Tribe (ST) population (15 million) in comparison to India as a whole, which has 8 percent ST population (RGI, 2011).

Tribal habitats predominantly hilly and forested areas are most inaccessible and unproductive and ST population represents the vulnerable and underprivileged sections of the society. The term 'Scheduled Tribes' refers to specific indigenous persons whose status is acknowledged to by the Constitution of India. The term 'Adivasi' also applies to indigenous inhabitants of this area. The diversity in the tribes across the state comes from differences in heredity, lifestyle, cultural traditions, social structure, economic structure, religious beliefs and language and speech and has been largely cut off from the mainstream of development.

There is a wealth of ethnographic data on deprivation of the STs. National research and activist organizations have also conducted micro-level surveys of households facing chronic food shortage and brought them before public gaze. For example, a 2005 survey of ST area found that 99 percent of the sample ST households faced chronic hunger, one-quarter faced semi-starvation during the previous week, and not a single household had more than 4 of 10 assets from a list that included such basic items as 'a blanket' 'a pair of shoes' or 'a radio' (Center for Environment and Food Security, 2005). Dubey (2009), GOI (2007).

Three rounds of the NFHS data (1992, 1998, 2005), provide the trends in basic health indicators and outcomes for Scheduled Tribes as compared to other groups. Results show that Scheduled Tribes in 1992 had significant deficits in access to health care. And while trends are improving in some cases at a faster pace than average, the size of deficits were so large at the start of the period that persistent and sizeable gaps remain. Thus, in nearly every health outcome whether child mortality, malnutrition, immunization, contraception, pregnancy or maternal care Scheduled Tribes continue to exhibit worse outcomes vis-à-vis the national average and in comparison, to non-STs (IIPS, 2007).

India's National Population Policy (NPP, 2000) and population policy of M.P.-2001 have underlined empowering women for health and nutrition as one of their crosscutting strategies. To achieve its health goals the Government of India has introduced flagship programme, National Rural Health Mission (NRHM 2005), to improve rural health with special focus on women and children to provide quality health services. For inclusive growth and improving employment opportunities, Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA, 2005) has been introduced in rural areas. Economically M.P. was considered as one of poor states in India till 2003 but after 2005 it registered consistent growth in terms of Gross Domestic

Product (GDP) with a rate of 8.26 percent for year 2019-20. Literacy is an important demographic element of human process. Right to education (RTE) providing education is the most fundamental prerequisite for empowering women in all areas of society. Ensuring education through Education Guarantee Scheme (EGS) in areas deprived of education facility, the retention of girl students to upper classes is still found challenging, particularly in the tribal dominated rural areas. It is not possible to raise the health status and quality of life of the people unless such efforts are integrated with the wider efforts to promote overall well being of the society (Basu 1992).

Madhya Pradesh is committed to bring about a focused change in the quality of life of its citizens especially women and children who represent the vulnerable sections especially of ST groups. In this background the present paper reviews the data available on socio-economic, health and demographic indicators. This paper will throw a light upon the status of Scheduled Tribe women in key developmental areas and the linkages with key demographic indicators, like infant mortality, child sex ratio to delineate the progress made by the state in achieving MDG goals through different interventions.

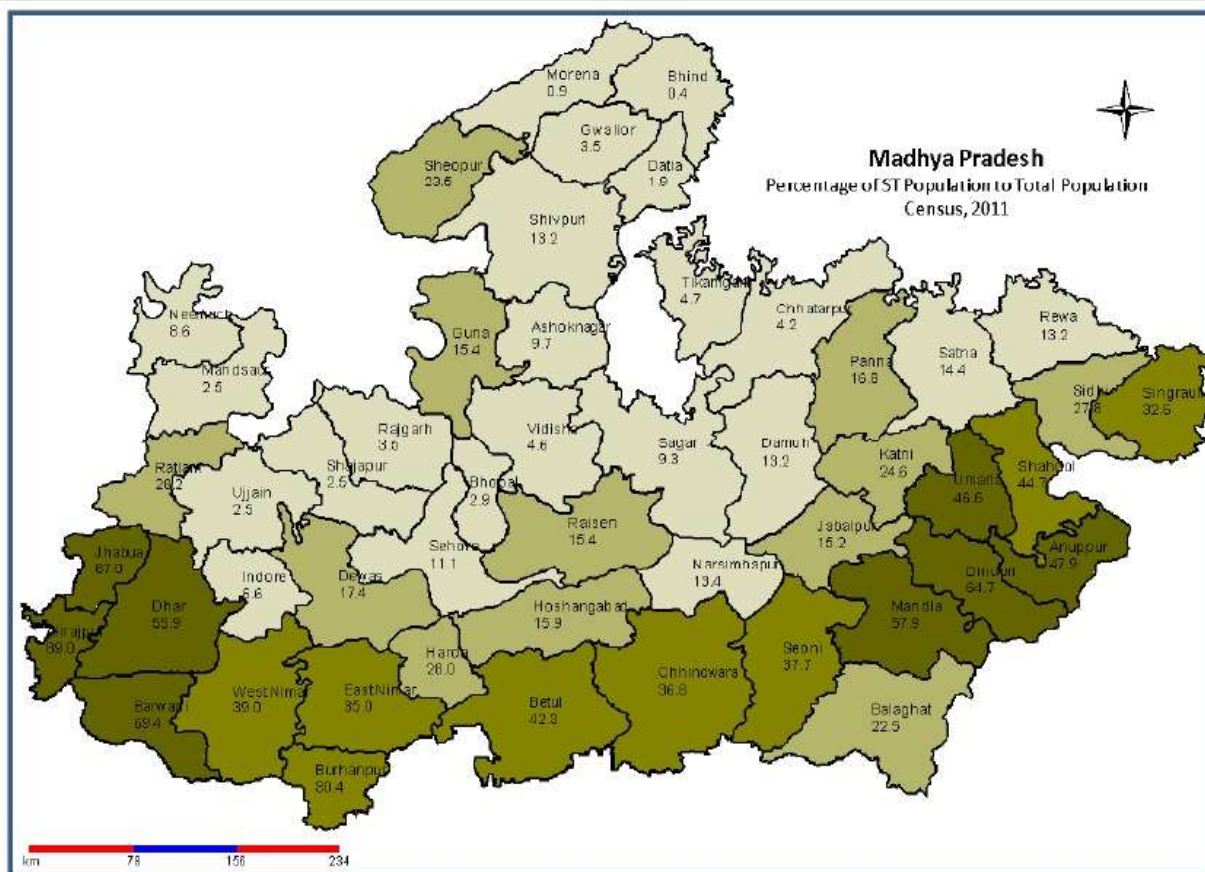
## DATA AND METHOD

In this paper the data have been drawn from various sources such as Annual Health Survey (AHS), District Level Health Survey (DLHS), Census, School Education Department, and Government of Madhya Pradesh. Data are analyzed at the district level using descriptive statistics and the results are also presented graphically. For twenty-two districts which have ST population above the state average a composite 'Maternal Child Health Index' has been developed comprising of the six individual indices which are - index of female education, index of teenage fertility, index of medical attention at birth, index of infant mortality rate, index of birth order 4+ and index of total fertility based on data of 2001-02. A similar index based on data of 2011-13 for different indices has also been prepared. Based on overall index district wise ranking is done for 2001-02 and 2011-13. This provides a composite ranking for the various districts and makes a comparison across two time periods.

## DISCUSSION:

### i) ST population in MP

This section presents the distribution of ST population and their socio-economic and demographic characteristics. The proportion of ST population to the total population of the districts is provided in Table1. Out of 51 districts, 22 districts have high tribal concentration above the state average (21 percent) and constitute 75 percent of total tribal population of the state Table1). Six districts - Alirajpur, Jhabua, Barwani, Dindori, Mandla and Dhar have tribal population in the range of 56-90 percent in both rural and urban areas. There are 46 scheduled tribes in Madhya Pradesh. Six tribes - Bhil, Gond, Kol, Korku, Sahariya and Baiga constitute 92.2 percent of total tribal population of the state as per 2001 census. Bhil has highest proportion among all tribes followed by Gond.



**Table 1: Percentage of Scheduled Tribe (ST) population by districts, MP (Census 2011)**

Districts	Total	Rural
<b>MP</b>	<b>44.2</b>	<b>50.4</b>
Alirajpur	89.0	93.4
Jhabua	87.0	92.3
Barwani	69.4	78.3
Dindori	64.7	66.7
Mandla	57.9	63.9
Dhar	55.9	64.4
Anuppur	47.9	58.4
Umaria	46.6	51.4
Shahdol	44.7	52.9
Betul	42.3	50.4
Khargone (West Nimar)	39.0	44.5
Seoni	37.7	41.6
Chhindwara	36.8	45.0
Khandwa (East Nimar)	35.0	42.0
Singrauli	32.6	38.0
Burhanpur	30.4	44.6
Ratlam	28.2	38.0
Harda	28.0	34.0
Sidhi	27.8	29.3
Katni	24.6	28.8
Sheopur	23.5	27.1

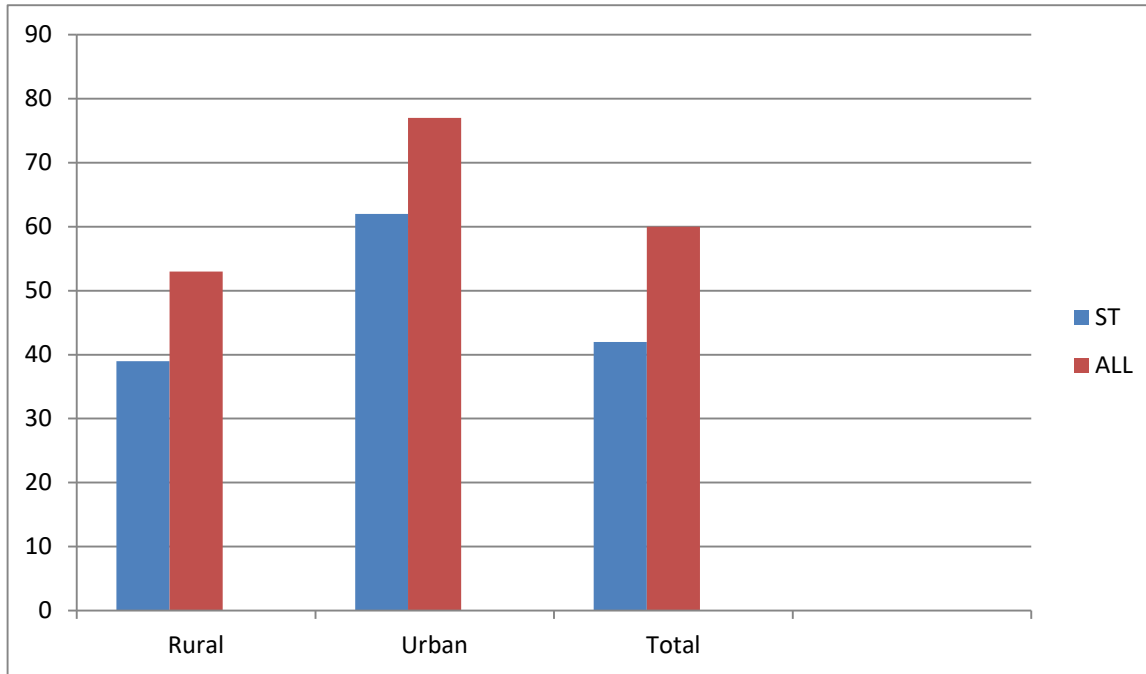
**ii) Educational profile of ST women**

Literacy is an important social indicator of human process. Optimizing provision of education is the most fundamental prerequisite for empowering women in all areas of society. Literacy and education are important indicators in a society and play a central role in human development that impacts overall social-economic development milieu. Higher levels of literacy and education lead to better attainment of health and nutritional status, economic growth, population control, empowerment of women and weaker sections and community as a whole. After implementation of the National Education Policy in 1987, the year

1994 marks the first ever efforts to address the goal of Universal Elementary Education by the MP government towards universal primary education and by the year 2000, it progressed towards giving impetus to the literacy programme to achieve the goal of universal elementary education. The trends in overall and ST female literacy, urban rural gap in female literacy, district wise achievements in female literacy, educational status of social groups (tribes), literacy status of young females, school enrolment of female children are discussed below.

It is evident from Figure 1 that female literacy rates for ST women is lower than the state average for all women (ST: 42; ALL: 60). In rural areas the literacy rates are further low among ST women as compared to all women (ST: 39; ALL: 53). Further improvement and interventions are necessary for these groups in the view of the fact that ST constitutes 21 percent of the population in the state.

**Fig 1, Proportion of female literacy by residence, MP (census 2011)**



**Youth literacy:** As far as progress in literacy is concerned another important indicator to be taken into account is the progress made in improving the youth literacy rate which is a reflection on improvement in primary education in recent past. Table 2 shows the female literacy rate in 15-24 years of age group for ST and all young women in the state. An overall gap of 22 percent in literacy rate is evident between ST women and all women (all women: 77.6%; ST: 55.5%) in the young age category. In rural areas it is further observed that young ST women (57 percent) are lagging behind in comparison to all women. Therefore, focus on improving the literacy status of ST women needs to be prioritized from primary levels especially in rural areas.

**Table 2: Female literacy rate 15-24 years age group (Census 2011)**

Residence	ST	All
Total	55.5	77.6
Rural	53.8	72.5
Urban	75.2	89.8

**Gender difference in literacy:** An important measure which predicts the parity or gap between males and females in literacy status is the ratio of female to male literacy. Table 3 indicates that in the 15-24 year age group there is an overall gender gap of 23 percent between female to male literacy ratio and this gap is higher for ST women belonging to rural areas (28 percent) but is lower for them in urban areas (15 percent) in comparison to their male counterparts.

**Table 3: Female-male literacy ratio in 15-24 years age in MP (Census 2011)**

Residence	ST	All
Total	73.4	76.8
Rural	71.8	72.8
Urban	84.7	78.0



### iii) Economic profile of ST women

Women's participation in the workforce is important not only in addressing the disproportionately low levels of poverty among them, but also as a key step towards raising household income and encouraging economic development. Although most women in MP work and contribute to the economy in one form or the other, much of their work goes unrecognized while women plough fields and harvest crops on farms; while working in household industries and also working in the informal sector. Additionally, women are responsible for the daily housework (e.g. cooking, fetching water, and looking after children). Some proxy variables are discussed such as possession of household assets, basic amenities of female headed households highlight their economic status.

**Household assets of female headed households:** The assets possessed by households headed by women also indicate women's status and empowerment. Table 4 highlights the proportion of female headed households possessing household assets, indicates that only half of the women have any assets. It is observed that only about one-third (32 percent) female headed households in ST group possess any assets.

**Table 4: Proportion of female headed households having household assets, MP (Census 2011)**

Residence	All	ST
Total	51.3	32.1
Rural	31.7	27.7
Urban	79.7	64.3

**Possession of basic household amenities by female headed households:** Table 5 illustrates the basic amenities available in female headed households. From the Table it is evident that more than two-thirds households have access to drinking water; two-thirds have electricity and less than one-third have access to toilets among all women headed households in the state.

**Table 5: Proportion of female headed households having access to drinking water, electricity and toilets, MP (Census 2011)**

Residence	Drinking Water		Electricity		Toilet	
	ALL	ST	ALL	ST	ALL	ST
Total	69.7	58.9	66.5	51.0	31.3	10.4
Rural	62.4	57.1	54.3	48.3	11.8	5.9
Urban	84.3	72.3	90.7	76.7	70.4	43.3

But ST female headed households have less access to drinking water (59 percent), electricity (51 percent) and toilet facility (10 percent). Lack of amenities in female headed households is more evident in rural areas among all groups but most strikingly among ST women. But ST women have better bank facilities in rural areas than all women as is evident from Table 6.

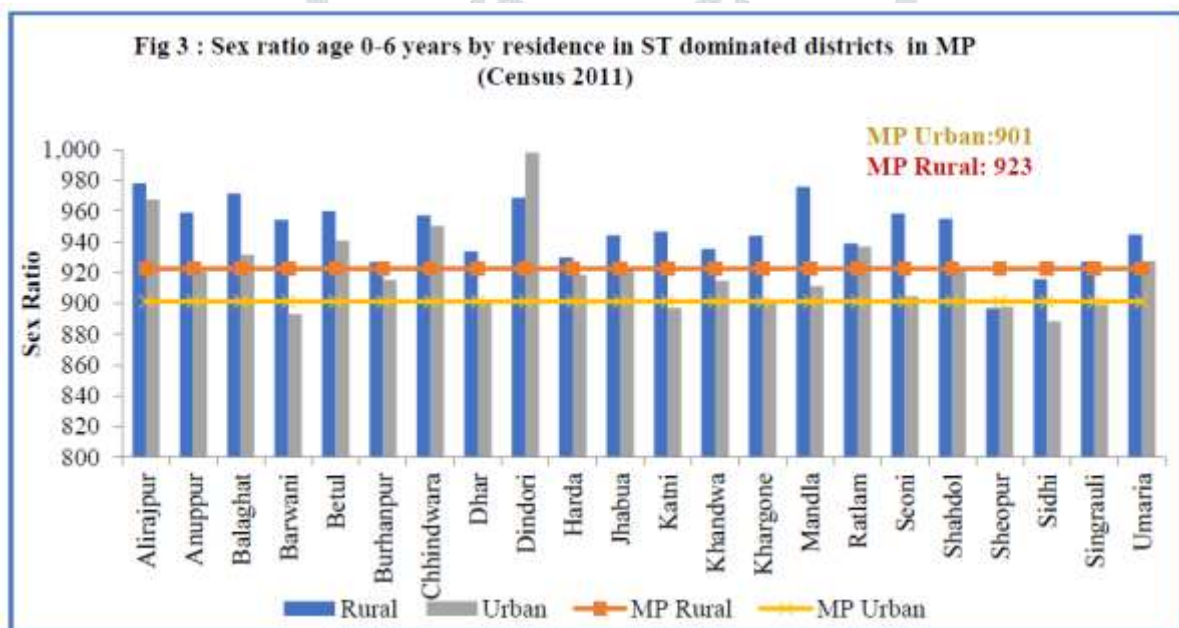
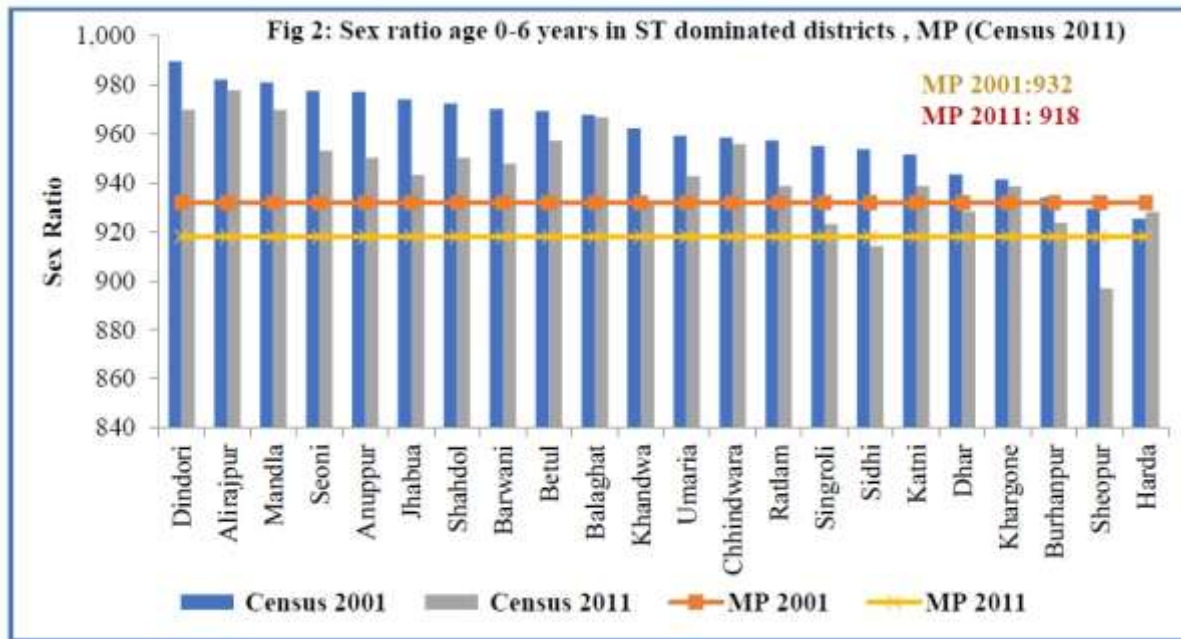
**Table 6: Proportion of female headed households availing banking facilities, MP (Census 2011)**

Residence	All	ST
Total	43.9	42.0
Rural	35.8	41.0
Urban	60.0	48.7

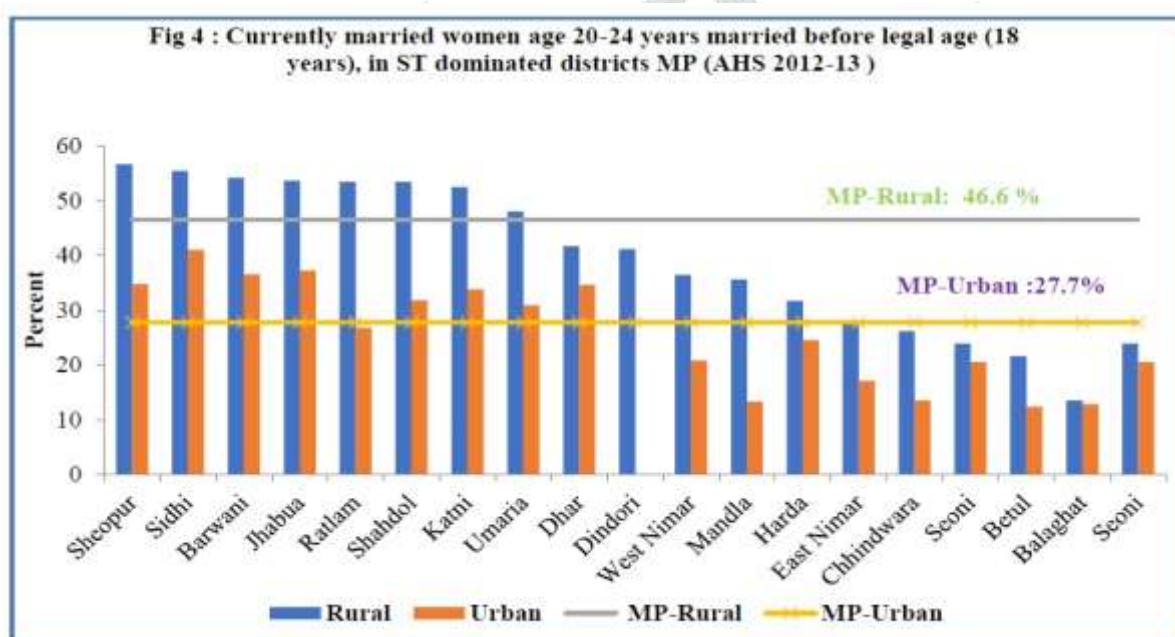
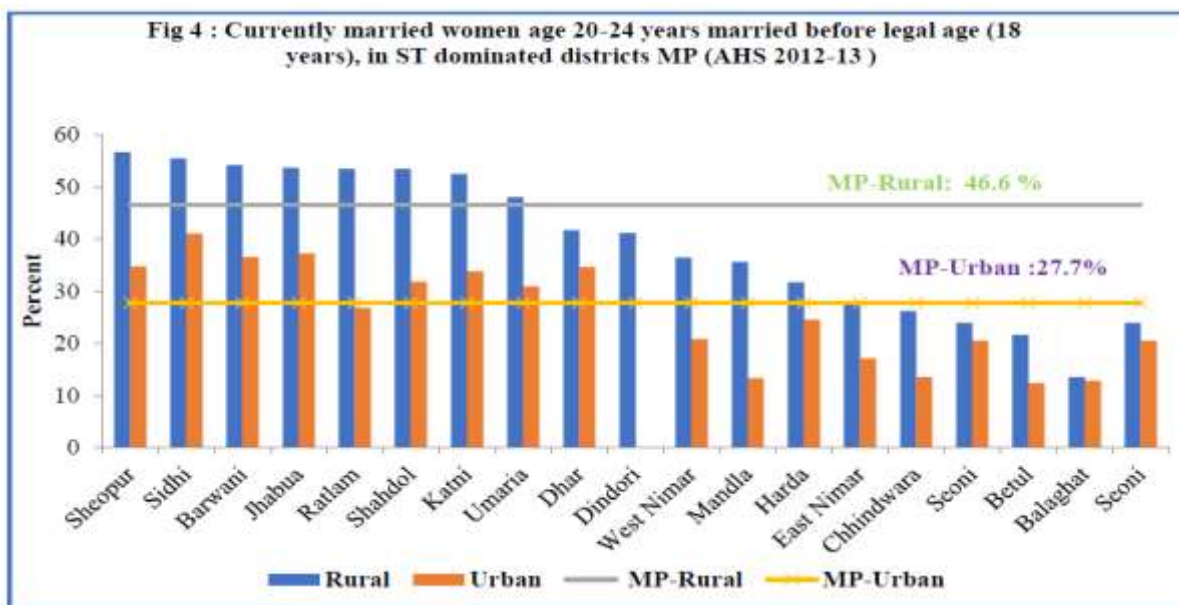
**iv) Demographic profile of ST women and children:-** This section presents the demographic profile of women and children which includes female sex ratio, child sex ratio, age at marriage and means children ever born (MCEB)

**Child sex ratio:** The child sex ratio (CSR) is defined as the ratio of girls to boys in the 0-6 year age. Both sex ratio for all ages and child sex ratio are important indicators of gender parity or gender discrimination. MP is committed to raising the sex ratio for age group 0-6 to 935 by 2011-12 and 950 by 2016-17 in its NRHM goals. Figure 2 and 3 illustrate the child sex ratio in 22 ST dominated districts. Dindori, Alirajpur, Mandla, Seoni, Anuppur have the highest child sex ratio. Average child sex ratio of ST dominated districts was 960 (Census 2001) and 943 in 2011 (Census 2011). The corresponding child sex ratio for MP as a whole during these two censuses is 932 and 918 respectively. Average child sex ratio in rural areas of ST dominated districts is 947 (Census 2011) and 921 in urban areas. The corresponding child sex ratio for MP as a whole in rural and urban areas is 923 and 901 respectively. The ST dominated districts have relatively better CSR than other districts in the state. Alirajpur (971), Dindori (970), Mandla (965), Balaghat (961) and Seoni (954) are top five districts. It may be mentioned that in the absence of deliberate interference, sex ratio at birth (SRB) among all human populations fluctuates around 104-106 male births per 100 female births,

with 105-106 often used as the biological standard (Waldren, 1998). Globally, across all ages, this ratio drops to about 101.6 males per 100 females because male children generally experience greater mortality in early childhood than girl children. In developing countries such as India, sex ratio in childhood is found to be skewed in favour of the male children.



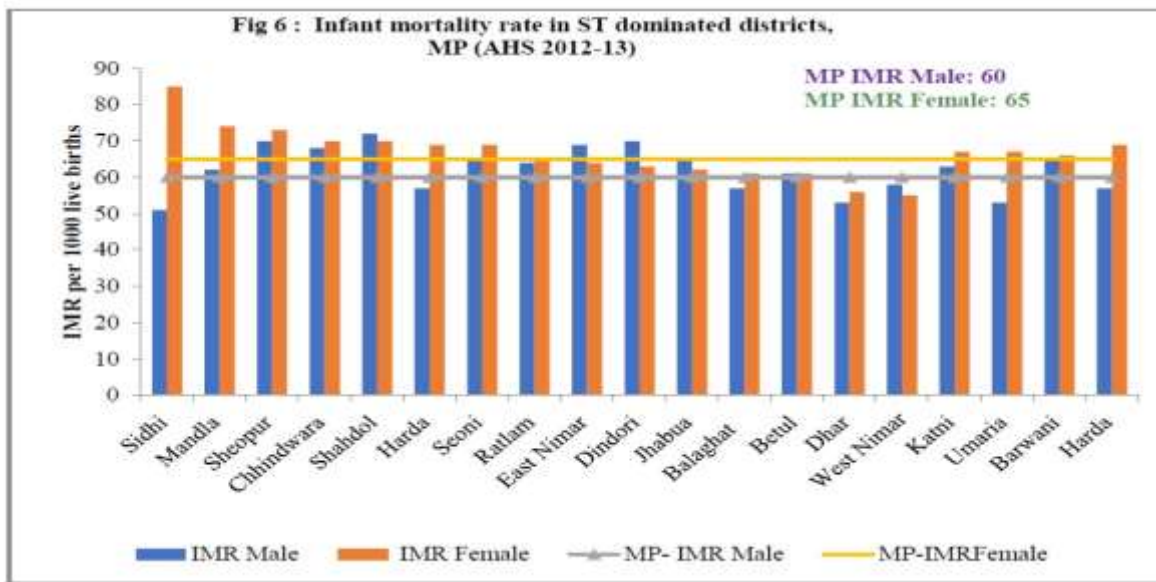
**Marriage and fertility:** Early marriage has grave consequences for maternal and child health and social and economic wellbeing. This is particularly vulnerable for girls and women marrying in early ages. In MP the overall proportion of women marrying before the legal minimum age at marriage is higher in rural than urban areas across all 51 districts. In ST dominated districts, the proportion of currently married women age 20-24 is 39.5 percent, whereas in MP as a whole this is 46.6 percent for rural areas and 27.7 percent for urban areas. In urban areas of ST dominated districts nearly one fourth (26 percent) of all the women in age 20-24 are currently married (Figure 4). Eight ST dominated districts - Sheopur, Sidhi, Barwani, Jhabua, Ratlam, Shahdol, Katni and Umaria have a higher proportion of girls marrying early compared to state average. An early age at marriage also has many negative health consequences for women. Early age at marriage typically leads to early childbearing, which in turn increases the risk of maternal and child mortality. In addition, young women married early may be subject to a higher risk of infection due to prior sexual experience of their older partners, their inability to negotiate safe sex as a result of their own young age and immaturity.



**Mean number of children ever born (MCEB):** This is considered as a standard measure of completed fertility rate per ever-married woman, who have completed the age of childbearing that is those in age-group 45-49. Although there has been a decline in completed fertility for women in MP since Census 2001 yet the completed fertility of women in MP is higher (3.9) than that of India as a whole (3.3) in 2011. Rural-urban comparison of average CEB can be seen from Figure 5. As evident from the Figure that there has been a fertility decline in MP among all categories of women over the previous decade but completed fertility is still high among ST women belonging to rural areas (ST: 4.5) in 2011.

**Infant mortality:** In MP there are 10.8 million children below age 6 years which contributes 14.5 percent to the total population of the state. Although there is a declining trend in infant mortality rate (the probability of dying before the first birthday), the IMR of MP is 54 per thousand live births (2013) which is the highest in the country (India, IMR: 40). There is a decline of 16 points in IMR in MP between 2008 and 2013 as compared to a decline of 13 points for India as a whole during this period. However, infant mortality rate is high for female children in comparison to male children in ST dominated districts (Female; 66; Male; 62). In seven districts- Sidhi, Mandla, Sheopur Chhindwara, Shahdol, Harda and Seoni the IMR ranges between 69-85 per 1000 live births, which is high. Infant mortality rate in ST dominated districts of MP is shown in Figure 6.





To reduce IMR in these districts, special health programmes such as Mission Indradhanush under Universal Immunization Programme, targeted intervention such as home based newborn care, nutrition rehabilitation centres are implemented. These districts are among the 146 high-priority districts have high IMR are being monitoring at national level under National Health Mission.

**v) Maternal and child health index**

This index has been computed to understand the relative performance of the 22 districts across a decade between 2001-02 and 2011-13. A composite ‘Maternal Child Health Index’ has been developed comprising of the six individual indices-index of female education, index of teenage fertility, index of medical attention at birth, index of infant mortality rate, index of birth order 4+ and index of total fertility based on data of 2001-02. A similar index based on data of 2011-13 for different indices has also been prepared. The overall index is an average of all six indices. Based on overall index district wise ranking is done for 2001-02 and 2011-13. This has been done to provide a composite ranking for these districts to make a comparison of their achievement in maternal and child health across two decades. A higher index value represents better position.

**1. Female education index**

$$= 2 * \text{female adult literacy rate} + \text{middle school enrollment of girls} / 3$$

**Total girls enrolled in middle school**

$$\text{Middle school enrollment ratio} = \frac{\text{Total girls enrolled in middle school}}{\text{Total female population age (11-14 years)}} * 100$$

**2. Medical attendance at birth index**

$$= 3 * \text{Institutional delivery} + \text{SBA Home delivery} / 4$$

$$\text{3. IMR index} = \frac{125 - \text{IMR}}{\text{Max} - \text{Min}} * 100 \quad [\text{Maximum} = 120; \text{Minimum} = 8]$$

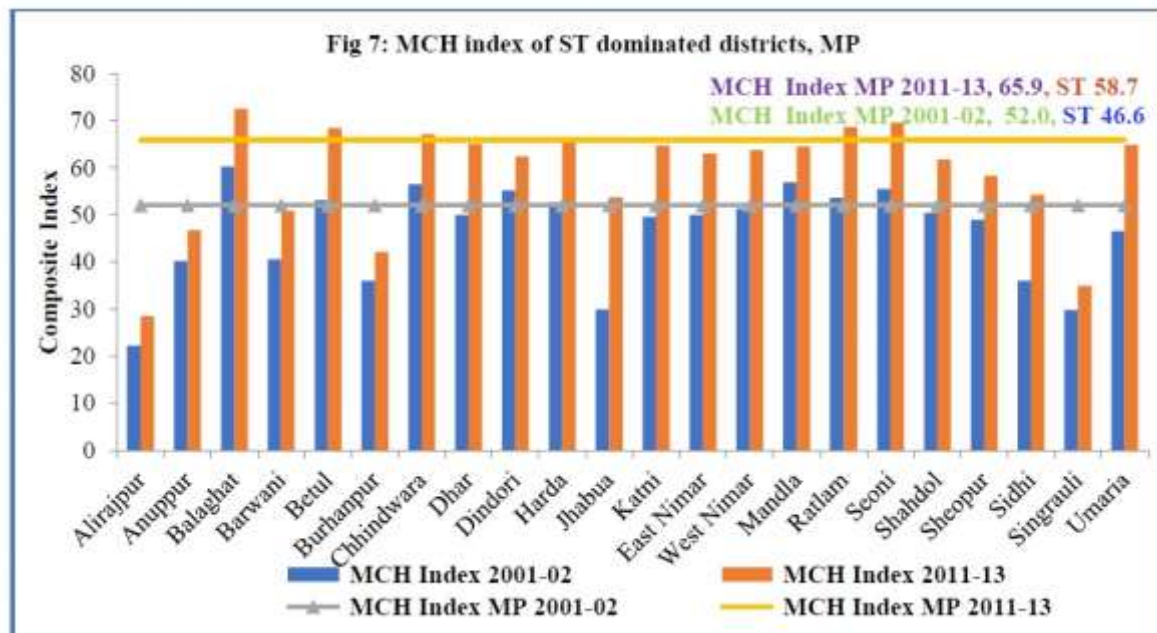
$$\text{4. Birth order 4+ index} = \frac{\text{Max} - \text{proportion of birth order 4+}}{\text{Max} - \text{Min}} * 100 \quad [\text{Maximum} = 48; \text{Minimum} = 8]$$

$$\text{5. TFR index} = \frac{\text{Max} - \text{TFR}}{\text{Max} - \text{Min}} * 100 \quad [\text{Maximum} = 6; \text{Minimum} = 1.6]$$



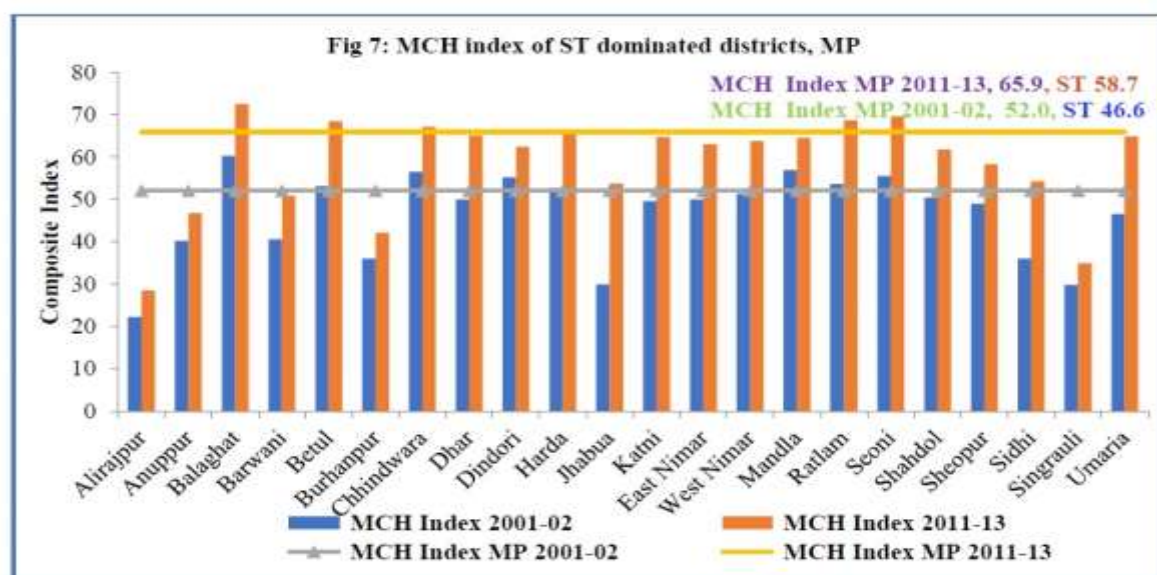
**Table 7: Maternal and child health index for ST dominated districts , MP: 2001-02**

Districts	Index of female education (Census 2001)	Index of teenage fertility (Census 2001)	Index of medical attention at birth (DLHS-2)	Index of IMR (DLHS-2)	Index of higher order birth (4+) (Census 2001)	Index of TFR (Census 2001)	Overall index (2001-02)	District wise rank
Alirajpur	36.9	55.8	--	--	1.9	6.8	22.2	50
Anuppur	58.2	103.4	--	--	32.8	54.5	40.2	43
Balaghat	57.1	50.9	55.6	59.3	45.9	47.7	60.3	5
Barwani	31.7	46.9	35.5	76.5	10.5	25.0	40.6	42
Betul	55.7	53.7	55.2	59.6	29.2	43.2	53.1	21
Burhanpur	54.3	39.8	--	--	26.0	43.2	36.0	46
Chhindwara	54.7	50.7	53.7	60.9	40.7	47.7	56.5	14
Dhar	38.6	49.0	41.2	71.6	32.0	45.5	50.0	28
Dindori	38.3	39.7	38.7	73.8	43.3	63.6	55.2	16
Harda	55.4	47.7	53.5	61.2	25.0	36.4	52.7	23
Jhabua	33.3	54.0	38.5	73.9	1.9	6.8	29.9	48
Katni	48.3	51.3	49.0	64.9	26.8	47.7	49.6	30
Khandwa	48.1	48.6	48.2	65.6	26.0	43.2	50.0	28
Khargone	48.4	51.9	49.3	64.7	29.9	43.2	51.3	25
Mandla	47.3	45.4	46.8	66.8	48.1	61.4	56.9	12
Ratlam	48.6	51.4	49.3	64.7	35.9	56.8	53.6	18
Seoni	51.9	52.2	52.0	62.4	43.2	40.9	55.5	15
Shahdol	48.0	59.3	50.8	63.4	32.8	54.5	50.4	27
Sheopur	38.6	56.3	43.0	70.1	11.3	45.5	48.9	31
Sidhi	37.8	103.4	54.2	60.5	8.7	29.5	36.0	46
Singrauli	46.6	103.4	--	--	8.7	29.5	29.8	49
Umaria	49.0	103.4	62.6	53.3	21.8	40.9	46.5	36
MP	50.3	103.4	63.6	52.5	31.0	47.7	52.0	



**Table 8: Maternal and child health index for ST dominated districts , MP: 2011-13**

Districts	Index of female education (Census 2011)	Index of teenage fertility (Census 2011)	Index of medical attention at birth (AHS 2012-13)	Index of IMR (DLHS-2)	Index of higher order birth (4+) (Census 2011)	Index of TFR (Census 2011)	Overall index 2011-12	District wise rank
Alirajpur	41.6	88.4	--	--	20.2	20.5	28.5	50
Anuppur	63.2	93.0	--	--	62.6	61.4	46.7	46
Balaghat	72.8	94.2	75.1	54.7	79.0	59.1	72.5	8
Barwani	51.7	88.3	61.9	50.4	27.9	25.0	50.9	45
Betul	64.4	92.3	72.9	54.7	69.3	56.8	68.4	17
Burhanpur	61.1	90.0	--	--	55.8	45.5	42.1	48
Chhindwara	69.0	91.3	69.9	47.0	71.1	54.5	67.1	19
Dhar	60.1	89.4	74.9	59.0	56.5	50.0	65.0	25
Dindori	62.7	90.8	44.8	53.0	68.7	54.5	62.4	35
Harda	69.2	92.4	69.8	47.9	58.2	56.8	65.7	21
Jhabua	45.5	87.5	72.4	53.8	33.2	29.5	53.7	44
Katni	68.7	94.2	68.6	49.6	52.4	54.5	64.7	28
Khandwa	62.4	90.7	66.5	52.1	58.5	47.7	63.0	34
Khargone	59.6	90.8	72.4	59.8	52.1	47.7	63.7	31
Mandla	62.6	89.8	57.7	43.6	76.6	56.8	64.5	29
Ratlam	63.0	93.2	83.5	51.3	62.5	59.1	68.7	15
Seoni	67.3	90.9	71.2	47.9	78.9	61.4	69.6	14
Shahdol	65.4	93.1	51.7	47.0	56.9	56.8	61.8	36
Sheopur	57.3	95.9	63.2	44.4	39.0	50.0	58.3	41
Sidhi	64.3	92.2	50.6	34.2	41.2	43.2	54.3	43
Singrauli	57.6	90.3	--	--	29.5	31.8	34.9	49
Umaria	63.1	92.6	72.3	49.6	59.5	52.3	64.9	27
M. P.	66.8	92.6	71.5	51.3	58.8	54.5	65.9	



In spite of the state's policy to reduce gender gap, urban-rural gap in female literacy still persists, and for ST females this gap is more pronounced. Therefore, the state must focus on districts with higher proportion of SC and ST population where enrolling girl children, retaining them and ensuring that there is minimum dropout poses a challenge. District wise child sex ratio in ST dominated district indicates gender balance among children. Teenage fertility is still higher among ST women both in rural and urban areas which is a cause of concern for maternal and child health in MP. The declining trend in infant mortality rate in MP is not similar across all social groups and is especially high among ST girl children in tribal dominated districts. Despite the efforts for improvements in health infrastructure, human resources, and service provision fertility decline remains a challenge in ST dominated districts of MP. The delay in fertility decline can pose greater challenge because of the high poverty levels among these groups.

## CONCLUSION

Results indicated lack of development in terms of socio-economic dimensions and shows poor demographic condition among scheduled tribe women and girls as compared to other social groups in ST dominated districts. The macro level data reflects below average condition among ST population for majority indicators of women's literacy, girl child education, lesser ownership of household assets among ST women headed households, high teen age fertility. This calls for micro level analysis among individual tribal groups in these ST dominated districts to ascertain the access and reach of different development initiatives

taken to uplift their socio-economic condition while preserving their individual cultural identity. A multipronged approach for reducing burden of poverty for ST women and its implications for their families is urgently needed. Simultaneously, developing a rural education policy would improve female enrolment and retention in schools among ST children. Revamping the health services, improving social infrastructure for equitable development and empowerment is essential for inclusive economic growth of women of ST population group.

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