

Demography of the Tribal Groups of Rajasthan: 2. Levels, Differentials and Trends in Fertility

M.K. Bhasin and Shampa Nag

Department of Anthropology, University of Delhi, Delhi 110 007, India

KEYWORDS Tribes. Fertility. Environment. Socio-economic Factors

ABSTRACT In the present paper, descriptions of “current” and cumulative fertility among the six major Scheduled Tribes have been discussed. Differences in levels of fertility across Scheduled Tribes seemed to be due to the influence of independent determinants as well as different levels of development, viz., Minas have again shown lesser fertility level as compared to other tribes under study. The relationship between fertility and such independent determinants as, economic and socio-cultural characteristics, physical environment has also been explored, which revealed possible influence.

INTRODUCTION

The study of fertility is of tremendous importance as it is one of the major positive forces in the balance of vital processes. It plays a major role in defining the health and fitness, survival and growth of a population. Age-sex distribution of a population is also more sensitive to the changes in fertility, than to the changes in mortality, leading to young or old age population structure and alternations in the sex ratio. Today, in view of the global decline in mortality, and absence of any corresponding diminution in fertility, it is held responsible for most of the population, developmental and environmental predicaments faced by nations, societies. For quite some time, therefore, concerted efforts are on to control fertility, particularly in the developing countries, like India. It is widely acknowledged that before implementation any control measure, explanation of fertility is a pre-requisite, which, in turn, requires understanding of the interplay of a host of physical environmental, economic, socio-cultural factors, which are perceived to be directly or indirectly influencing this population component.

In the present paper, to understand the “current” (period) levels, trends and differentials in fertility, following measures have been studied: (a) Crude Birth Rate; (b) General Fertility Rate; (c) Age-Specific Fertility Rate; (d) Total Fertility Rate; (e) Gross Reproduction Rate; (f) General Marital Fertility Rate; (g) Age-Specific Marital Fertility Rate; (h) Total Marital Fertility Rate; and (i) Child-Woman ratios. In addition, fertility-related variable

– number of children ever born has been explored in relation to various physical environmental, economic and socio-cultural determinants.

MATERIALS AND METHODS

The study sample comprised Scheduled Tribes, Sahariya, Mina, Bhil, Kathodi, Damor and Garasia belonging to 46 villages in Baran, Sawai Madhopur, Udaipur, Dungarpur and Sirohi districts, in Rajasthan. Altogether, a total of 900 nuclear families belonging to 661 households were randomly selected for the study (200 each from the first three Scheduled Tribes and 100 each from the last three Scheduled Tribes). A nuclear family was taken as the unit of the study.

For data collection, structured schedules developed for the purpose were utilized in addition to drawing genealogies and participant observation. The primary respondent was the ever-married woman in the household aged 15-54 years. However, the collected information was crosschecked from other members of the household as well as other locally important persons including paramedics. For details, refer to Bhasin and Nag (2007).

RESULTS AND DISCUSSION

Measures of Fertility

Crude Birth Rate: The crude birth rate for the present Scheduled Tribe population, on the whole, is 31.5 per thousand population (Table 1). Individually, the estimate seems to vary from a high of 36.9 among Sahariyas and 36.0 among

Bhils to a low of 24.0 among the Minas, a socio-economically well-off Scheduled Tribe, with relatively low infant mortality level and high contraceptive usage. While the crude birth rate of 34.9 for Rajasthan (SRS, 1992) seems higher, those for demographically advanced state of Kerala (17.7) and India (30.9), appear lower than the rate for the present study population

on the whole. [It may be noted that according to the UN, 2001, the crude birth rate for India in the year 2000 has been 24.5]. It seems that birth rates in other caste/religious groups in Rajasthan may be higher, particularly as compared to Minas, which may have increased the state's birth rate. However, the relatively low estimate for the study population can be a chance fluctuation due to limited sample size.

General Fertility Rate: The general fertility rate for the present Scheduled Tribe population is 141.25, i.e., 141 children have been born to every thousand women belonging to ages 15-49 years. The pattern for the general fertility rate among the individual tribes is similar to that of crude birth rate (Table 1). That is, the highest rate is seen among the Sahariyas (182.69), and the second highest among the Bhils (161.43), whereas the lowest rate is noticed among the Minas (104.65).

At the national level, 119 children were born to every 1000 women belonging to ages 15-49 years. Among the major states, the rate varied from 62 in Kerala to 161.9 in Uttar Pradesh (SRS, 1992). The state of Rajasthan has also shown a relatively high rate of 147.9. Again it is evident that the estimate for the present Scheduled Tribe population on the whole, is below that for Rajasthan, but above those for Kerala and India.

Age-Specific Fertility Rate: Age of mother is an important factor affecting fertility levels. The age specific fertility rate gives a more precise picture, as it is not affected by the age structure of the population unlike the rates discussed above. Table 1 shows that, overall, the present Scheduled Tribe population follows the expected pattern. Fertility peaks at ages 20-24 years, reflecting a pattern of early marriage and child-bearing. However, the rate at ages 25-29 years is also quite high (211.06), probably implying prolonged childbearing period. Fertility rates decline considerably only after age 34 years, but the women seem to continue to bear children till 40-44 years.

In India as a whole, as well as in major states including Rajasthan, fertility peaks at ages 20-24 years, and remains high at ages 25-29 years, and starts declining after 30 years. In the age 30-34

Table 1: Measures of fertility among Scheduled Tribes of Rajasthan

Measures of Fertility	Sahariyas	Minas	Bhils	Kathodis	Damors	Garasias	Total
Crude Birth Rate	36.89	24.04	36.00	28.72	31.96	29.27	31.48
General Fertility Rate	182.69	104.65	161.43	114.58	147.37	123.71	141.25
<i>Age-Specific Fertility Rate</i>							
15-19 years	228.57	41.67	111.11	71.43	250.00	230.77	135.80
20-24 years	333.33	148.15	190.47	176.47	266.67	150.00	214.29
25-29 years	177.78	220.00	244.90	136.36	285.71	210.53	211.06
30-34 years	233.33	162.79	212.12	153.85	83.33	52.63	160.49
35-39 years	75.00	33.33	117.65	76.92	-	90.91	66.27
40-44 years	71.43	43.48	50.00	76.92	-	-	45.98
45-49 years	-	-	-	-	-	-	-
Total Fertility Rate	5.60	3.25	4.63	3.46	4.43	3.67	4.17
Gross Reproduction Rate	2.73	1.59	2.26	1.69	2.16	1.79	2.03
General Marital Fertility Rate	206.52	108.43	181.82	126.44	153.85	136.36	153.85
<i>Age-Specific Marital Fertility Rate</i>							
15-19 years	320.00	48.78	363.64	250.00	333.33	428.57	220.00
20-24 years	379.31	153.85	181.82	166.67	285.71	157.89	220.00
25-29 years	177.78	220.00	255.32	136.36	266.67	222.22	213.20
30-34 years	241.38	162.79	212.12	153.84	83.33	52.63	161.49
35-39 years	83.33	33.33	117.65	76.92	-	90.91	67.90
40-44 years	83.33	45.45	50.00	76.92	-	-	48.19
45-49 years	-	-	-	-	-	-	-
Total Marital Fertility Rate	6.43	3.32	5.90	4.30	4.85	4.76	4.65
<i>Child-Woman Ratios</i>							
C_{0-4}/W_{15-44}	1035.53	613.55	929.91	576.09	896.55	842.70	820.43
C_{5-9}/W_{20-49}	1052.02	971.43	925.13	597.56	747.13	654.76	893.25
C_{0-9}/W_{15-49}	1855.77	1387.60	1668.16	1062.50	1505.26	1340.20	1526.10

years, whereas the level of fertility is rather low in Kerala at 43.2, it is seen quite high in the states of Uttar Pradesh (200.4), Bihar (170.8) and Rajasthan (155.6) [SRS, 1992].

At the individual level however, variations are noticed. While among Sahariyas and Kathodis the fertility seems to reach its peak at ages 20-24 years, among Minas, Bhils, Damors and Garasias, the peak fertility is seen at ages 25-29 years.

Total Fertility Rate: The total fertility rate presents a single index of total fertility and is independent of the age composition of the population. The rate for the Scheduled Tribe population on the whole, is 4.2 children per woman. Individually, it varies from 3.3 among Minas to 5.6 among Sahariyas (Table 1).

The total fertility rate for India is 3.6 (SRS, 1992). [In 2000, it has been estimated as 3.1 per women (UN, 2001)]. Among the major states, it varies from 1.7 in Kerala to 5.2 in Uttar Pradesh. The state of Rajasthan also has returned a relatively high total fertility rate of 4.5. The estimate for the study population mentioned above thus, appear slightly lower, which can be due to relatively high total fertility among other population groups. In fact, the NFHS, 1992-93, has reported that the total fertility rate for Scheduled Castes in Rajasthan was higher than that for the Scheduled Tribes. However, the tribes are yet to emerge as a demographically advanced group, unlike the population of Kerala. Even the 1992 Indian estimate appears lower, when the overall rate for Scheduled Tribe population is considered.

Gross Reproduction Rate: The gross reproduction rate for India in the year 1992 was 1.7 (SRS, 1992). Among the major states, the rate appears relatively high at 2 and above in Uttar Pradesh (2.4), Bihar (2.2), Madhya Pradesh (2.1) and Rajasthan (2.0). In the present Scheduled Tribe population, on the whole, the gross reproduction rate is estimated as 2.0 as well. However, it varies across the individual tribes from 1.6 among Minas to 2.7 among Sahariyas (Table 1).

General Marital Fertility Rate: The general marital fertility rate for the Scheduled Tribe population, on the whole, is found 153.85; i.e., 154 children are born to thousand currently married women in the age group of 15-49 years. At the individual level, the rate seems to vary from a low of 108.43 among Minas to a high of

206.52 among Sahariyas (Table 1). In the SRS, 1992, the general marital fertility rate for India has been estimated as 157.4, while the rate appears rather low for the state of Kerala (97.7). Whereas the former estimate seems only marginally higher, the latter one is much lower than the estimate for the present study population.

Age-Specific Marital Fertility Rate: The age-specific marital fertility schedule for the present Scheduled Tribe population show slight variations when compared with the age-specific fertility schedule, in that the marital fertility seems to reach its peak at the ages 15-19 years itself (220), and remains as high at ages 20-24 years (220), thereby indicating early, prolonged and frequent childbearing. The fertility level for a married woman seems to decline only after 34 years, i.e., when the demographic damage in terms of fertility has already been done. At the individual tribal level however, lot of variations are seen (Table 1). Whereas among Bhils, Kathodis, Damors and Garasias, fertility reaches its peak at ages 15-19 years itself, among Sahariyas, the same is seen at ages 20-24 years, and among Minas, at ages 25-29 years.

In India, the age-specific marital fertility schedule is similar to that elaborated earlier for age specific fertility schedule. That is, the marital fertility peaks at ages 20-24 years, although it remains considerably high at age 25-29 years (SRS, 1992). The state of demographically advanced Kerala also showed a similar trend, but the levels were much lower. These trends, it may be noted that, are dissimilar to those observed for the study population group.

Total Marital Fertility Rate: As seen in case of other measures of fertility, the total marital rate is relatively high at 4.7 in the present Scheduled Tribe population. And, the lowest (3.3) and the highest estimates (6.4) are observed among Minas and Sahariyas respectively (Table 1). The estimate for the total study population is however, slightly lower than that for India as a whole (5.1, in SRS, 1992) but much higher than that for the demographically advanced Kerala (3.8).

Child-Woman Ratio: The age and sex composition of a population is the result of part vectors of fertility, mortality and migration. The child-woman ratio is a commonly used measure of fertility calculated from the age-sex distribution. The ratio for the present Scheduled Tribe population is estimated as 820.43 (Table 1). But

as in case of other measures, while the highest ratio is seen among Sahariyas, the lowest is observed among Kathodis, most probably due to very high infant and child mortality level, rather than on account of decline in fertility. The child-woman ratio for India is 545 (Census of India, 1981) and for Kerala, it is 406, which are relatively low.

Exploratory Fertility Analysis

As already mentioned, a number of independent economic, socio-cultural and physical environmental determinants affect the population forces, which result in differential fertility levels across population groups/regions/countries. In the present study too, such interplay on number of children ever born, a fertility-related variable has been studied as detailed in this section.

Fertility Differentials by Present Age of Woman: It can be observed in table 2 that the average number of children ever born per ever-married woman increases with the increasing age of woman, in the present Scheduled Tribe population. In the age group of 15-19 years, women seem to have borne only 1.56 children, whereas in the 45+ years age group, the average moves up to a high of 6.01, indicating rather high completed family size. Individual tribal groups have also shown similar trend, except Sahariyas, where slight discrepancy is noticed at the 45+ years of age, which could be due to omission of some births by the older respondents.

Fertility Differentials by Occupation of Husband: Pick et al. (1988) in a study in Mexico found that besides education, which had a major negative impact on fertility, occupation too had a negative impact. Pandey et al. (1987) in a study in rural Uttar Pradesh found agricultural labourers having the highest fertility whereas when the husband's occupational category is service, the fertility level was the lowest. The present Scheduled Tribe population, on the whole, has shown similar trend. That is, while the average number of children ever born is relatively quite low when husbands are engaged in the service sector, it is the highest when they are engaged in cultivation and the second highest when they are agricultural/casual labourers. Cultivators probably require more farm hands in the relative absence of labourers or costly wage scenario in the study area. Individually too, similar picture is seen. Very low estimates of children ever born

in case of economically inactive husbands seems to be due to small number of cases in the category (Table 2).

Fertility Differentials by Occupation of Wife: Table shows that in case of the present Scheduled Tribe population, women's occupation too shows differential fertility. However, the trend seems slightly different from what has been noticed in case of husband's occupation, most probably due to small number of cases in most of the categories. The majority of women appear to be economically inactive. And, fertility is the lowest among them (3.85) followed by those engaged in cultivation (3.97), while it is the highest among agricultural/casual labourers (4.38).

Fertility Differentials by Income: In developing countries, negative association between fertility and income has been highlighted by many authors (Mamdani, 1981; Dastidar, 1996). In the present population as well, broadly speaking, the average number of children ever born seems to decrease with increasing income levels, excepting minor variations. Individual Scheduled Tribes also register similar pattern. However, it is interesting to note that among Sahariyas as well as Minas the average number of children ever born is lower in the lowest income slab of Rs. 10,000 and below than in the next one of Rs. 10,001-20,000 (Table 2). This is also reflected in the pooled data.

Fertility Differentials by Cultivable Landholding: In the present Scheduled Tribe population, the average number of children ever born is the lowest, when the size of landholding is 51 kanals and above, and it is the highest when the size of landholding is 6-10 kanals. Thus, although a decline is noticed, as the size of landholding increases from 6-10 kanals to 21-25 kanals, variations have been noticed in case other categories, most probably due to small sample size. Individual Tribes have also registered similar trend (Table 2).

Fertility Differentials by Family Structure: In the present Scheduled Tribe population, the average number of children ever born seems higher in nuclear family set-ups than in joint family ones (Table 2). All the individual tribal groups too, have shown similar trend. Many studies have also indicated that in joint family set-ups, fertility may be low (Caldwell et al., 1984) which may be attributed to relatively lesser husband and wife communication, which in turn,

Table 2: Fertility differentials (average number of children ever born per ever-married woman) among Scheduled Tribes of Rajasthan, by selected independent determinants

Independent determinants	Sahariyas	Minas	Bhils	Kathodis	Damors	Garasias	Total
<i>Present age of Woman (in yrs.)</i>							
15-19	1.80	1.00	2.00	1.25	1.17	1.00	1.56
20-24	1.96	1.94	2.21	1.63	1.71	2.05	2.00
25-29	3.89	2.51	3.21	2.50	2.36	2.83	3.03
30-34	5.83	3.65	4.79	3.23	3.65	3.63	4.27
35-39	5.85	4.80	5.53	3.31	4.00	4.91	5.07
40-44	7.43	5.57	5.80	4.33	4.70	3.67	5.52
45+	7.08	6.00	6.77	5.65	5.11	4.87	6.01
<i>Occupation of Husband</i>							
Economically Inactive	3.50	1.25	3.00	-	-	-	2.25
Agricultural/Casual Labour	4.56	2.33	3.93	3.05	3.11	3.46	3.81
Cultivation	5.65	4.15	4.56	5.45	3.76	4.25	4.36
Petty Business	4.00	3.25	4.17	2.50	4.33	1.00	3.59
Service	3.54	3.22	4.00	8.00	2.10	2.50	3.22
<i>Occupation of Wife</i>							
Economically Inactive	4.83	4.26	4.14	3.15	3.12	3.65	3.85
Agricultural/Casual Labour	4.65	2.00	5.17	3.40	3.07	5.00	4.38
Cultivator	7.67	3.77	-	4.00	5.86	1.00	3.97
Petty Business	-	-	-	-	-	-	-
Service	7.00	3.00	5.00	-	4.00	-	5.64
<i>Income (in Rs. per annum)</i>							
0-10000	4.46	3.75	4.26	3.43	3.45	3.88	3.93
10001-20000	5.01	4.47	3.90	2.50	2.84	2.33	4.33
20001-30000	4.68	4.25	3.33	-	2.00	3.00	4.23
30001-40000	-	2.88	-	-	-	-	2.88
40001-50000	-	4.03	-	-	4.00	-	4.03
50001-100000	1.00	3.90	3.00	-	-	3.00	3.84
100000+	-	3.73	-	-	-	-	3.73
<i>Cultivable Landholding (in kanals)</i>							
0	4.66	-	-	2.33	3.00	-	3.81
1-5	4.80	4.40	4.07	3.53	3.20	3.75	3.99
6-10	5.16	4.24	4.52	5.20	4.11	3.71	4.48
11-15	4.42	3.93	3.83	-	2.75	3.00	3.90
16-20	4.58	3.85	5.00	-	2.55	1.00	3.80
21-25	4.00	3.71	-	-	2.00	3.00	3.53
26-50	-	4.27	-	-	4.00	2.50	4.21
51+	-	3.20	-	-	-	-	3.20
<i>Family Structure</i>							
Joint	4.30	3.58	3.62	2.93	3.00	3.55	3.59
Nuclear	5.17	4.42	4.42	3.68	3.84	3.96	4.44
<i>Telephone Facility Available</i>							
No	5.19	5.70	-	4.08	-	-	5.39
Yes	4.71	3.77	4.18	3.12	3.31	3.66	3.94
<i>Medical Facility Available</i>							
None	5.00	-	-	-	-	-	5.00
Sub-Centre/Medical Aid Centre	5.21	3.85	4.21	3.69	3.42	3.66	3.91
Primary Health Centre/ Regd. Pvt. Practitioner	4.46	4.02	3.70	3.24	2.96	-	3.79
Community Health Centre/ Hospital etc.	4.73	3.88	4.47	-	-	-	4.46
<i>Housing Conditions</i>							
Type of House							
Kuchcha	4.79	3.87	4.19	3.36	3.31	3.66	4.03
Pucca	-	4.02	3.71	3.25	4.00	-	3.99
Separate Cattleshed Present							
No	4.99	5.54	4.09	3.33	3.31	3.66	4.02
Yes	4.37	3.82	4.19	3.53	3.29	3.67	4.03
<i>Ventilation Condition</i>							
Unsatisfactory	4.77	4.04	4.19	3.33	3.29	3.66	4.03
Satisfactory	5.29	3.78	3.75	4.33	5.00	-	3.97
General Sanitary Condition							

Table 2: Contd....

<i>Independent determinants</i>	<i>Sahariyas</i>	<i>Minas</i>	<i>Bhils</i>	<i>Kathodis</i>	<i>Damors</i>	<i>Garasias</i>	<i>Total</i>
Unsatisfactory	4.76	3.80	4.18	3.33	3.29	3.66	3.97
Satisfactory	4.95	4.10	4.15	6.00	5.00	-	4.26
<i>Number of Rooms</i>							
1	4.81	3.65	4.15	3.41	3.77	3.67	4.12
2	4.57	4.64	4.55	2.83	2.63	4.17	4.12
3-9	-	3.72	3.91	3.14	3.14	2.22	3.57
<i>Source of Water Supply</i>							
River	-	4.10	5.50	-	-	-	5.50
Well/Water tank	5.32	3.61	4.16	-	-	-	4.16
Handpump	4.71	-	4.16	3.36	3.31	3.66	3.99
<i>Refuse Disposal to Nearby Surroundings</i>							
Yes	4.83	3.66	4.25	3.20	3.14	3.94	4.10
No	2.75	4.28	4.12	3.73	3.41	2.68	3.89

is due to the traditional set-up of such families, lack of privacy etc. (Driver, 1963; Gould, 1972; Nag, 1972).

Fertility Differentials by Education of Husband: In the Scheduled Tribe population under study, the average number of children ever born to ever-married women is higher when husbands are illiterate, than when they are literate (Table 2). Also, women seem to have borne more children when husbands are less educated, than when they are relatively more educated. At the individual level too, more or less similar trend is found. Many studies have reported similar trend (Rele and Kanitkar, 1974; Mamdani, 1981; Dyson and Moore, 1983).

Fertility Differentials by Education of Wife: In many studies education-fertility relationship have been reported (Chaudhury, 1984; Jain and Nag, 1985; Dadoo, 1992). In the present Scheduled Tribe population as well, illiterate women seem to have borne more children than their literate counter-parts (as seen in case of education too). Also, those with only primary school background have had slightly higher average number of children than those with middle or higher secondary school background. Individual Tribes have also shown similar trend, when literacy status and number of children ever born have been considered. But, variations are noticeable when educational levels are taken into account, due to very few numbers in most of the category (Table 2).

Fertility Differentials by Age at Marriage of Husband: In the present Scheduled Tribe population, the average number of children ever born seems to decrease with increasing age at marriage of husband, barring minor variations (Table 2). Same trend is noticed across individual

tribal groups as well. This can be explained in terms of lesser parental control, greater chances of being educated and/or gainfully or employed, as well as greater awareness of small family size benefits and contraceptive usage.

Fertility Differentials by Age at Marriage of Wife: Age at marriage of women is considered one of the most important factors influencing fertility behaviour. After Malthus, several others from across the world have reported that delayed marriage contributed to the decline in fertility (UN, 1961; Busfield, 1972; Chaudhury, 1984; Pandey and Talwar, 1987). In the present Scheduled Tribe population also, broadly speaking, the trend is of decreasing fertility with the increase in age at marriage of women (Table 2). Individually speaking as well, the same trend is observed. This could be attributed to their greater chances of being literate, and/or gainfully employed, being aware of fertility control methods and benefits.

Fertility Differentials by Educational Facility Available: In general, in case of the Scheduled Tribe population studied, the average number of children ever born seems to vary from a high of 5.83 when no educational facility is present, to a low of 3.44 when primary/middle/high schools are present within 5 km of residence. Slightly higher average of 4.41 when these as well as higher secondary schools are present in the vicinity is mainly on account of similar deviation in Bhils. Otherwise, the general trend is noticed among Sahariyas, Minas as well as Bhils (Table 2).

Fertility Differentials by Approach to Village (Road): The average number of children ever born is seen lower when the approach to village is a pucca or metalled road than when it is

a kuchcha or unmetalled one. Similar trend is noticed in case of Sahariyas, Minas and Kathodis too (Table 2). Most probably this refers to relatively greater exposure to the outside world through better communication, greater access to educational, medical facilities including family planning methods. The communication facilities in terms of improved transport and communications not only increase mobility, but are also responsible for new ideas about family formation.

Fertility Differentials by Post/Telegraph Facility Available: In the present Scheduled Tribe population, the average number of children ever born is seen higher when post/telegraph facility is not available within 5 km of residence, than when it is available (Table 2). At the individual tribal level as well, similar trend is evident.

Fertility Differentials by Telephone Facility Available: The average number of children ever born seems to be lower when telephone facility is present within 5 km of residence than when it is not (Table 2). Presence of this facility indicates better outside exposure. Such exposure may be bringing about change in outlook, which may be influencing the fertility behaviour.

Fertility Differentials by Medical Facility Available: While commenting on the advanced demographic picture in Kerala, India, Nag (1983) mentioned the development of such social services as, transport, education and health. In the present Scheduled Tribe population (Table 2), the average number of children ever born is seen to vary from a high of 5.00 when no medical facility is present within 5 km of residence, to a low of 3.79 when any Primary Health Centre and/or Regd. Private Practitioner is present. However, similar decline is not seen when Community Health Centre/ Hospital etc. are present. Similar trend is noticed in case of individual tribal groups as well.

Fertility Differentials by Type of House: In case of the present Scheduled Tribe population on the whole, type of house does not seem to influence fertility (Table 2). The average number of children ever born is 4.03, when the house is of kuchcha type, which is not much different from 3.99, when the house type is pucca. Also, individual tribal groups have shown varying trend. Most probably several factors are influencing fertility simultaneously.

Fertility Differentials by Presence of Separate Cattleshed: The presence or absence

of a separate cattle shed does not seem to influence fertility in the present Scheduled Tribe population (Table 2). Individual population groups also have shown varying trend, most probably due to the simultaneous or overriding effects of other factors.

Fertility Differentials by Ventilation Condition: Similar to the above -mentioned factor, satisfactory or unsatisfactory ventilation in the house also does not seem to influence fertility in the present Scheduled Tribe population. Individual tribal groups also show varied trend (Table 2). While satisfactory ventilation seem to lower fertility among Minas and Bhils, the opposite appears to be true in others.

Fertility Differentials by General Sanitary Condition: In the present Scheduled Tribe population, on the whole, satisfactory general sanitary condition at home seems to increase fertility rather than unsatisfactory condition. Individual groups also register similar trend (Table 2).

Fertility Differentials by Number of Rooms Present: On the whole, the average number of children ever born seem comparatively low when there are 3-9 rooms than when the number of rooms is 1 or 2. However, individual tribal groups have shown irregular and dissimilar trends (Table 2).

Fertility Differentials by Source of Water Supply: In the present Scheduled Tribe population the average number of children ever born seem the lowest (3.99) when the water source is handpump, while it is the highest (5.50), when it is river. Individual population groups show slight variations, probably due to small sample size as well as absence of certain water sources (Table 2).

Fertility Differentials by Disposal of Refuse Nearby: The average number of children ever born is noticed higher, when refuse is disposed off at nearby surroundings than when it is not, in the present Scheduled Tribe population (Table 2). Similar trend is seen among Sahariyas, Bhils and Garasias, while the rest show opposite trend.

Therefore, it is clear that a number of environmental and socio-economic factors may be influencing fertility behaviour in the present Scheduled Tribe population, and variations in these may be responsible for the differentials within and across the Scheduled Tribes. Further, even though the 'period' fertility estimates for the present Scheduled Tribe population overall,

appear slightly lower than those for the state of Rajasthan, the estimates for India are lower and those for the demographically advanced state of Kerala are much lower. These results broadly indicate that fertility is still relatively high in the study population and needs to be rectified to bring about a positive change in their health and well-being.

Therefore, in addition to acceleration of developmental activities, there is a strong need the information, education and communication by adapting the generalized messages under the programme to suit the cultural behaviour and intellectual level of the tribal groups. Promotion of small family norm among the tribals is also required urgently. To achieve these, it is important to launch community needs assessment studies and studies on health seeking behaviour. Based on the findings of these studies, new messages could be designed to drive the point home about small family and its benefits as well as related aspects, shunning of child marriages, as well as early and frequent child bearing etc. The role of local traditional faith healers, priests, herbalists in the society is to be studied and their structural position is to be explored further to develop guidelines as to how they can be utilized to disseminate and prevent common preventable maladies and also to form a bridge between the authorities and the community.

The non-governmental organizations, religious bodies, local leaders who have a strong hold on the local populace, may be asked to participate in the IEC programme, apart from other sectors, particularly the education sector.

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